Dynamic Capital Holdings Quantitative HFT Trading Strategy

Trade Thesis:

Today's markets have shifted in MANY ways from what we have been accustomed to over the last several years.

Quantitative easing and fiscal stimulus led all asset classes to rise (inflate) regardless of their "real" intrinsic value as a result of the surplus in the money supply.

Surplus money, coupled with runaway government spending and rudimentary government policies, has paved the way to the highest inflation rate in 40 years.

The unwinding of Q/E and monetary/fiscal stimulus, coupled with a combination of uncertainty and instability in the geopolitical climate has created a turbulent landscape that will affect the underpinnings of the entire financial system and change market dynamics, technically and structurally, for some time to come.

The recent HIGH volatility coupled with fluctuating sentiment, has created a challenging trade environment. We have shifted from a strong trending market to a relatively volatile market with wide swings in both directions. (binary risk)

Although we think the market's structure, liquidity, and fluidity are still generally sound from a technical perspective, the opportunity vs. risk component has ballooned tremendously. This risk-reward imbalance calls today's buy-and-hold strategies into question and puts traditional human-based trading models to the test.

Algorithmic trading accounts for around 60-73% of the overall United States equity trading. According to Select USA, the United States financial markets are the largest and most liquid in the world. *This is expected to grow 12% per year*

We have developed a short-term trading program designed to mitigate several types of risk by utilizing a quantitative framework based upon a robust algorithmic model.

We incorporate timing, multiple timeframe (MTF) price structure symmetry, and an extensive framework of precision execution protocols to leverage and exploit short-term trading opportunities on an *intraday basis (no overnight risk)*.

(Precise timing + MTF price symmetry) x leverage = low risk, high reward trading opportunities with higher than average return expectation profiles

Our combination of analysis tools, highly adaptive risk protocols, and trade execution management systems allow for an unprecedented edge in today's uncertain markets.

We remove the emotion-psychological element of trading by adhering to our algorithmic signals and a quantitative framework coupled with a solid foundation of processes.

As such, we refine the decision-making process through a rigid rules-based trading engine in order to systematically automate much of the trading and risk management protocols.

Additionally, we employ a team-oriented approach for strategy implementation, execution, and management. We have a 2-man team that consists of a senior trader/partner assisted by an intern/junior trader.

 Incorporating a team segregates the daily process and allows for a check and balances system to ensure the strategy and systems are running optimally and efficiently while minimizing risks.

We can simultaneously train new traders for 3-6 months through our Internship/Jr. Trader Program (3-6 months). *See quantitative trading internship via DCH website.*

The following pages will serve as an outline to describe our methodology, strategy, model, framework, process, and general mechanics & protocols for our intraday trading program.

The Model:

DCH's system is built around a unique, highly technical TIME-based strategy. Our program's objective is to generate consistent, positive, above-average returns on allocated capital.

Our methodology was founded upon a quantitative, algorithmic framework that examines time and price over MTFs incorporated with a volatility component to determine an expectation profile.

Methodology - We have developed proprietary algorithms that measure buying and selling sequences through price and layers of time.

We measure 3 average true range (ATR) periods and assign major-intermediate-minor cycles within each time frame. Then we monitor 12-time frames and look for time/price symmetry.

We possess a keen understanding of the geometrical symmetry and time-associated technical relationships that repeatedly occur in the marketplace.

These buying and selling patterns enable us to assign specific time and price expectancy targets which we use to map out a geometrical configuration of how the market, stock or trading product will most likely behave.

Our view maintains that each market or security contains its own supply and demand profile that can be measured and monitored for identifying low-risk opportunities while avoiding high-risk trading situations.

We monitor and utilize 12 individual time frames in each market or security we are highlighting. Within each time frame, we measure 3 impulsive wave patterns of 3 different ATR periods.

This geometrical framework provides us the ability to "*see the market in color vs. black and white*" By providing "color" we establish a bearish (red), bullish (green), or cautionary (yellow/orange) outlook for any market or security in focus.

With this information, we are able to identify major, intermediate, and minor swing pivots in both price and time within each time frame.

Based upon this model, we can identify culmination pivots where all 3 ATR cycles line up with symmetry and determine a high probability reversal or continuation pattern of price and time that qualifies as a dynamic or convergent volatility profile.

Daily Strategy Protocol - Our trading strategy is based first upon identifying low-risk securities that meet our daily technical timing, price, and volatility criteria.

We scan over 600 stocks and ETFs daily to identify trading opportunities both long and short.

Our scans produce a daily report that gives us a market profile by identifying the ratio of buys to sells, which we refer to as our **Dynamic Market Profile (DMP).** We then use this ratio to guide our daily portfolio construction.

We focus primarily on the intermediate-minor signals in the 1-3 day cycles and allocate capital through 3 layers of time, both long and short. We are able to dynamically adjust the holdings daily in order to achieve optimal exposure/ balance based upon our models.

Once a stock is considered in play for a 1-2 day cycle we try to exploit the trading opportunity daily until our targeted expectancy is reached. We generally allocate 25% of our capital to major signals, 25% to intermediate signals, and 50% to minor signals trading no more than 5-10 securities both long and short daily.

Major signals – are trades that are highlighted as **daily swing** trades that are generally bought within the first hour of the day and held until the close.

Intermediate signals – are trades that are generally **36-72 min cycle** trades. These trades try to exploit both the morning and midday cycle or the midday to afternoon cycle.

Minor signals – are high-frequency trades of **12-36** minutes.

Profile - Once we generate our daily scan and run our ratios, we then start to sort trade signals that align with our allocation profile.

We create a stock list, take the daily generated signal list and we profile those securities by looking at them through 12 layers of time, from a daily chart down to a 3 min chart. In most cases, we are able to identify exactly where and when we want to get involved and get our risk down to a 3 min interval. We are trying to identify, with a high level of probability, a low-risk kick point that allows us to get our risk down to a 3 min chart.

Once a trade is highlighted and then profiled, we can set alerts and enter the marketplace at our discretion and engage, based upon our set of price and time criteria.

Risk management - After the trade is confirmed as filled, we start the monitoring and management process. The position is entered into our customized portfolio manager and the evaluation process begins looking for immediate positive feedback.

A specific stop is initially generated based upon ATR with a 3:1 risk-reward profile along with signal type and TIME expectancy. Next, we begin to refine our expectations and risk through layers of time and try to get the trade to a break-even risk profile as soon as possible in order to preserve capital.

We perform a detailed intraday analysis on all open positions, move stops accordingly and refine targets as needed. This allows us to be proactive and always on top of our positions, while dynamically managing risk.

Generating a consistent positive return on capital - Our goal is to generate a positive return on capital by adding a multidimensional trading program designed to exploit 3 layers of time in today's dynamic market environment.

We believe our trading methodology can potentially generate significant return on capital by exploiting short-term trading opportunities utilizing a specific well-laid-out approach for short-term trading.

Over the course of February 2022, we utilized our trading model and protocols to live trade in a simulated environment to fine-tune our processes while displaying positive return capabilities.

February 2022 **Simulated Trading Results -**

Date	Daily P/L	Running Total	Total P/L	Month	Monthly P/L (Total $)
1/28/2022	$ 11,332.15	$11,332.15	$ 97,423.80	Feb 22 (+Jan 28/31)	$ 97,423.80
1/31/2022	$ 22,579.00	$33,911.15			
2/1/2022	$ 38,009.00	$71,920.15			
2/2/2022	$ 2,057.42	$73,977.57			
2/3/2022	$ (29,428.90)	$44,548.67			
2/4/2022	$ 1,829.37	$46,378.04			
2/7/2022	$ (40,540.50)	$5,837.54			
2/8/2022	$ 7,408.55	$13,246.09			
2/9/2022	$ 9,527.75	$22,773.84			
2/10/2022	$ (1,780.45)	$20,993.39			
2/11/2022	$ 21,204.59	$42,197.98			
2/14/2022	$ (66,331.59)	-$24,133.61			
2/15/2022	$ (12,780.40)	-$36,914.01			
2/16/2022	$ 56,409.75	$19,495.74			
2/17/2022	$ (16,197.25)	$3,298.49			
2/18/2022	$ 1,367.90	$4,666.39			
2/22/2022	$ 1,372.00	$6,038.39			
2/23/2022	$ (32,920.50)	-$26,882.11			
2/24/2022	$ 47,805.50	$20,923.39			
2/25/2022	$ (3,760.55)	$17,162.84			
2/28/2022	$ 80,260.96	$97,423.80			

Daily P/L & Running P/L Total
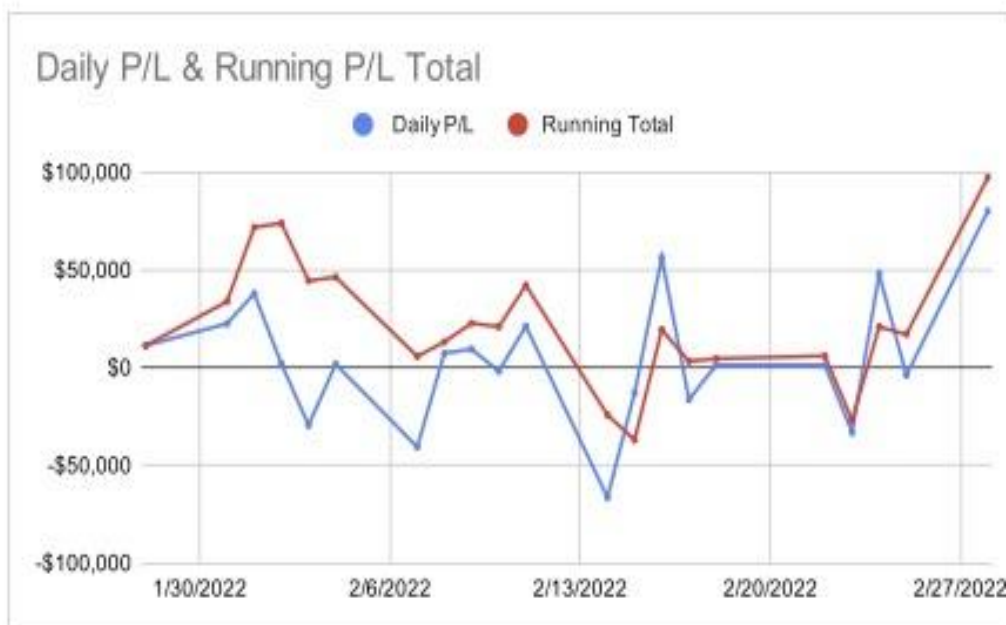
The above example highlights every level and trade we've highlighted during the period on an intraday basis.

*** The above represents a 1 mil notional account.*

Our Process:

At DCH we follow our own 8-step process cycle for all trading purposes, which we refer to as the *Dynamic Timing Edge*. The cycle begins with Signal Generation and continually repeats itself to generate trade ideas, trade executions, and trade management to uniquely create positive returns on our capital. Refer to our Dynamic Timing Edge diagram:

Signal Generation

We start every week/day with our Sunday evening homework, which is the application of our market analysis tools to all 600+ equities on our **LOOK list** from a macro perspective.

We refine the weekly signals further to generate daily timing insights, which we will project into progressively smaller time frames throughout this process.

Signal Processing

From our **LOOK list**, we evaluate our signals for trading viability on a weekly basis. Those demonstrating the following characteristics:

- Robust timing symmetry across MTF's (multiple time frames)
- Favorable Price location vs.TIME
- Volatility trends that complement our underlying bias

The results are then added to our **WATCH list** and proceed to the **Signal Engagement Protocol** phase of our weekly trading routine.

Signal Engagement Protocol

From the **WATCH list,** we will engage in daily scans for the remainder of the week. For those signals on the **WATCH list** with the highest trading viability, as determined by:

- R score > 3:1
- Showing signals that agree on MTF (multiple time frames)
- Dominant signal type that matches our broad market bias
  We then move them to our **FOCUS list**.

Signal Qualification Protocol

From the **FOCUS list**, we will search on an intraday basis for trade opportunities developing according to our expectations. Opportunities on the **FOCUS list** that display:

- MTF symmetry across lower timeframes
- Robust price structure
- Timing across MTFs

Here enters our **Dynamic Point of Impact** analysis process, at which point we review:

- Short interest
- Sentiment indicators
- Options open interest
- Newsflow
- Internet chatter (StockTwits, Twitter, etc.)
- Analyst activity
- Upcoming events

in order to ensure that our otherwise strictly quantitative process is informed regarding any likely causes of deviation from projected behavior. Those trades which continue to meet our criteria through this step are moved to the **STALK list**.

Trades on the **STALK list** are no longer just an idea but rather they are concrete, tenable positions that we are now interested in engaging with institutional capital.

Trade Execution Protocol

1. Identify a set of signals from our **STALK list** exhibiting the following characteristics:

    - Price development matches our expectations

    - Consistent timing signals across MTF

    - Volatility metrics aligned with our market profile

2. Place the symbol into our position monitor and size up the trade through the Allocator. The Allocator will portion out our trade based upon available capital and volatility expectations for the security being traded.

3. At this stage of a live trade operation, we finalize all of the following through our software:

    - **Two exit targets**--limit orders representing one-third of our trade each

    - **Three stop losses**--risk mitigation measures representing one-third of our trade each

    - **One duration-TIME based exit target**--our final trade termination order without respect to price

    This step must be completed before any trades go live.

4. Our initial entry, **which represents one-third of our intended position size**, is done at the market based upon our timing signals. **There must be a time-based signal in order to initialize a trade.**

5. To account for the remaining two-thirds of our intended position size, we place two additional limit orders. For **long** positions, these are set to trigger **below the market** at predetermined prices, while for **shorts** these are set **above the market** at predetermined prices.

6. **It is imperative to our risk management protocol and overall strategy that the position size calculated by the Allocator is strictly adhered to. Our performance numbers will be a direct reflection of how well we can execute this.**

7. Once any portion of the trade has been executed, we **immediately** initialize our **Risk Management Protocol**.

Risk Management Protocol

1. The **first** action taken on any live trade is to **ensure that all of our predetermined orders - three-stop losses, two limit sells, and the time-based termination order - are in place.**

2. **Stops must be strictly adhered to; they are the core of our risk management strategy.**

3. **Regardless of market directionality, live trades must be monitored at all times and re-examined regularly. With capital engaged, they carry risk.**

4. Live trades with all risk management procedures in place continue to the **Trade Management Protocol**.

Trade Management Protocol

Trades in this phase of operation are monitored for market feedback--a trade making a loss is experiencing negative feedback, while a trade making gains is experiencing positive feedback. **Our priority is to manage negative market feedback first while allowing positive feedback to develop fully.**

- **In the event of negative market feedback** for our position, we may take additional measures to **mitigate risk**. These can include scaling out of the position without reaching our stops or tightening--but never loosening--the stops.

- **When faced with positive market feedback**, we **maintain our limit sales** for the first two-thirds of the position. We will then hold the third portion until the time-based termination order comes into effect.

- **When receiving neutral market feedback,** we revise our expectations to account for movements in time, including factors such as options premium decay, decreases in expected volatility and momentum, and degree of departure from our models. We may elect to terminate trades that do not display clear feedback in order to preserve capital.

Symbol Recycle & Signal Re-engagement Protocol

At the conclusion of a trading week, we discard the majority of our unused timing signals in preparation for re-engaging our process on the following Sunday evening.

We do preserve those signals indicative of longer-term movements, which will be processed again in the same fashion as a brand-new signal for the following week.

We will also preserve any signals pertaining to trades that we have maintained over the weekend for the purposes of managing those trades. Otherwise, one cycle of the process ends here. New cycles begin each Sunday, following the same protocol.

IN SUMMARY: The TIME for a robust rules-based quantitative HFT is here and NOW…

We have a turn-key solution we can integrate into your portfolio of strategies.