



**Welcome to this second installment of the Path Integral newsletter. The past month and a half have been quite eventful, giving us much to discuss.**

### *Recent Performance*

The system's performance since inception on April 1 of this year has been extremely good, and we feel it is useful once again to caution clients against unrealistic expectations. Recent returns exceed those that rigorous testing has led us to expect by a wide margin and so are unlikely to continue indefinitely. Of course, we expect that the system will produce good returns in the long run, though with both periods of excellent and below average performance along the way.

The system has thus far played only one short move but it has successfully caught several of the upward movements in the oil market. It has not acted as a trend model would have, since it has made money in a market which went up, then down and up again in a short time, a more complicated scenario than most trend models could capture. With selective double ups on surer bets and a "stay out" default in uncertain conditions, the system has managed to produce good returns while avoiding much of the volatility that has characterized the oil market since April.

### *Lack of Short Moves in Recent Periods*

As explained in our first newsletter, the system is composed of many models, which in turn are analyzed by a number of modules. When one module signals a move and is not contradicted by any other, a trading instruction is issued. In almost all cases so far, when a short signal was issued by one or more modules, it was contradicted within the system by other modules' long signals. In other situations, the system was prepared to issue shorts but market conditions under which they would have been activated did not arise.

The lack of short plays since April 1 probably indicates that the system perceives a general upward bias in the oil market, even during times when it was slightly depressed. Short indications in the market were almost never strong enough to be acted on.

### *Recent Changes to the Model*

We are continually working to improve the system. Recent changes include the addition of a short signal module and improvements to the system "over-ride". (Over-rides keep the system out of the market in scenarios where secondary diagnostics indicate decreased predictive accuracy.) The earlier system over-ride was overly sensitive, resulting in the elimination of too many signals. After exhaustive analysis, these have been greatly improved although there are many improvements yet to be made.

## *Work Currently in Progress*

### **Work is now focused on two areas:**

- Upgrades to the exit strategy. The current exit strategy is by default end-of-day, with the model exiting when no signal indicates it should continue in a position. We are investigating a variety of ways to improve upon this.
- Operating in multiple markets. Path Integral was originally developed to operate in the NASDAQ 100 futures market. However, because that market exhibited steadily decreasing volatility and thus decreased potential for gains, the system was retooled for light crude oil futures. We are currently working on the programming and analytical issues that would allow Path Integral to analyze both oil and the NASDAQ markets simultaneously. Our plan is for the system to eventually run on many markets.

## *System Philosophy and Long Run View*

As previously noted, the system's recent performance may lead some clients to assume the system will always have outstanding performance. We believe that long run results will be closer to the hypothetical results posted on our trading partner's web site at [www.purelogiccapital.com](http://www.purelogiccapital.com); we encourage you to review those results, although they do not yet reflect the addition of over-rides. Testing has shown that over-rides do not necessarily lead to greater gains but do mitigate periods of loss.

Our long run philosophy is for the system to discriminate trades to an even greater extent, choosing only the most favorable situations amongst a number of markets. The end results will be more trading days, but fewer trades per market. As we explore an expanded trading space, we hope to implement many other risk-mitigation and profit maximization strategies.

## *In Closing*

A recent seminar for prospective customers showed them to be educated and curious. We could hope for none better. We came away from that session understanding that even if every investor fundamentally wants to make a profit, they nonetheless have unique needs, which our trading partners at PureLogic Capital usually can handle.

We welcome questions and comments, including topics you might want discussed in future newsletters. Feel free to e-mail us at [infodesk@pathintegral.com](mailto:infodesk@pathintegral.com), or call Mike at 818-631-6377.

Thanks again.

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**Risk Disclosure:** There is a substantial risk of loss in trading futures and options. Past performance is not indicative of future results. No system or trading program can guarantee profits or freedom from loss.