From rural Pennsylvania, Brandywine takes on the world

The old mill on this scenic New England road looks like something straight out of a Norman Rockwell painting. But make no mistake, there's nothing old-fashioned about this place. It's where Mike Dever runs the newly revived Brandywine Asset Management. He began trading more than 30 years ago before spending a decade in the dot com world. Now, back in the markets full time, Mike tells Andy Webb about his twin penchants for diversity and automation.

Mike Dever

Andy: *It seems like you've been around in this industry for an awfully long time. Can you give me a bit of the history?*

Mike: I started trading in 1979. I was finishing up college and had a few thousand dollars from the sale of a car and started trading some gold. I got into futures in 1979. I founded Brandywine in 1982 to really formalise the fact that I was trading, and turned it into a CTA. In 1984, in addition to my own trading, I set up an account with Paul Tudor Jones and shortly after that with John Henry.

In the late '80s, I set up a program – it was about a three-year research project – to fully automate what I was doing with my trading, which was discretionary at that time, and come up with what we launched in 1991: a fully automated, broadly diversified, multi-strategy approach. The result was our Benchmark Trading program, which averaged 20 percent annualised returns throughout the 1990s.

Andy: *And your current incarnation?*

Mike: After spending most of the 2000s founding and operating technology-related businesses, I relaunched our trading in July 2011 in Brandywine's Symphony program.

We've been targeting 8 percent annualised standard deviation in our standard product. We're almost exactly on that – I think we're a little under, maybe 7 – and targeting 12 percent annualised returns, and I think we're right around 10. So everything is on track. We've got a more aggressively traded product, Brandywine Symphony Preferred Fund, that's gained substantially more than that, as it should have. It's up 45 percent over its first 13 months. The volatility is higher too – it's close to 25 to 30 – but it's tracking along what we were hoping or expecting.

Andy: *At the moment you are futures only – is it purely directional stuff or are you spreading as well?*

Mike: It's a mix. Our belief is broad strategy, market diversification. We're in over a hundred markets. We've got dozens of independent strategies. They each operate based on their own unique return driver, and we incorporate those into a balanced portfolio. Some of the strategies are looking at spread relationships, some are directional outright. They might range from a couple of days to a year-long trade depending on the strategy.

Andy: *How many trading models would you be running at any one time?*

Mike: A few dozen.

Andy: *So you've got multiple models out there trading and they're diverse. It sounds like the holding period varies enormously. What is your shortest time frame?*

Mike: A few days. We are not doing anything intraday targeted, but for a trade length, it might be 3 – 6 days on the short end.

Andy: *Would you say most of the models that you are running at the moment are mincing up daily data or are you feeding real-time data?*

Mike: The majority is daily data, but it's got a mix of some intraday as well.

Andy: *Interesting. So because you have got this diversification model, you are not susceptible to the swings that most trend-following CTAs are, where, if the markets don't trend one year, you are a bit screwed. Is that the idea?*

Mike: For us, trend-following is just one return driver. But there are literally hundreds of different return drivers, depending on the markets that you are looking at, that you can employ. So what we do is start out identifying a return driver. For example, we may have a seasonal strategy that is trying to take advantage of the fact that the majority of market participants are a little bit hesitant to get short into the freeze season for oranges in the United States. We will act as the insurance company; we will take the other side of that trade, and some years, not all years, we need to have the right set-up for that.

It is a high probability trade that does look like an insurance company; we collect money in 71 percent of the years in which we put on the trade, with an occasional big setback when there is a freeze. That is a trading strategy based on a sound logical return driver that has nothing to do with trend-following. The correlation will be zero. The non-trend strategies that we trade generally run between -0.1 and +0.1 correlation of data returns to trend following strategies just because they are based on something totally unique. ▶


John Uebler & Mike Dever

Andy: *Interesting.*

Mike: Our portfolio is just a composite of hundreds of different strategy-market combinations like that. Each might get a small allocation and in the aggregate they work out to give us the portfolio return.

Andy: *You said you are futures only at the moment, how many different futures markets?*

Mike: It is global, over 100. We are trading anything that has reasonable liquidity – the lower tier of the liquidity markets up to all the big stock indexes, interest rates and currencies.

We have quite a broad experience in market-neutral equity strategies, individual stock portfolios, sector strategies where we created sector indexes and traded those long and short, and then timing strategies using mutual funds and stocks and directional timing strategies. Right now our total focus, over the next few years at a minimum, is going to be on the managed futures side. We feel we can get the broadest diversification with one instrument type with futures.

Andy: *So how does the dynamic work? An idea pops into your head, and you guys discuss it?*

Mike: Similar to that. It generally initiates with me. Rob Proctor (head of trading) does day-to-day trading, trade execution.

I have a whole backlog, a library of trading strategy concepts. We will start testing ideas; we will flush it out, test the idea. Most of our platform is written in Java, although to the extent that we can – and if we don't have guys that can do the job otherwise – we will allocate some of the strategy development out for either TradeStation or even Excel. The final platform, the main back-testing platform and the trading platform are all written in Java.

Andy: *That is something that you guys built yourselves, in house?*

Mike: That's right. It's based on a lot of what we did in the '90s, which at that time was C++. It's something that we felt we really needed to have in place again. It helps run our system, not just the trading but the research, which is based on the same Java code as the trading so that we know that when we flip something over from backtest and we're saying that we are going to run it real time, it's running off the same code. Code changes may result in different outcomes. Then it goes through and helps integrate with all the data feeds for both historical and actual. What we don't have integrated yet today, what we will be working on, is the full trading to back end. So right now we get the trade output, Rob enters that, and we use Patsystems for trade entry. Then on the back end, we pull it back out and right now it is being done in Excel, as far as maintaining tracking of performance. All that will ultimately end up back in the Java program.

Andy: *Would you say that the main development platform for new models and ideas is the Java platform that you have just described?*

Mike: It is. We call it Cadence. The program is Brandywine Symphony program, keeping with the same orchestral musical theme.

Andy: *With Cadence, that's not just with the backtesting and development platform, it's the execution platform*

as well, in terms of triggering the signal, so the code that you used to generate the backtest is the same code used to generate live trading signals. Is that right?

Mike: Exactly, that's right. We don't have to worry about some sort of conversion problem.

Andy: *When that is running live, what is the plumbing between that and Patsystems as the front end? Are you feeding the trades automatically through an API into Pats?*

Mike: We're not yet. It is on the development schedule to use the Pats APIs and integrate with Pats, although we're also looking at using TT. There will still be some markets that get hand-entered, for example some of the Mexican markets or some of the other markets that we're in that don't have the interface set up in Pats between Pats and our brokerage. The intent is ultimately everything will be an automatic API. There will be a sanity check by a human for a number of the trades but for the most part it will go in automatically.

Andy: *I am interested to know about how you set on Pats. Was it just a front end that you were used to using?*

Mike: Pats had the broadest coverage of the markets that we were trading in. So it gave us the ability of automating the most number of trade executions.

Andy: *So the trade signals from Cadence flow straight into Rob's blotter in Pats?*

Mike: Right now Rob gets the trades out of Cadence, and he gets them in a screen display and data file. He then hand enters or transfers them into Pats today. So the next step will be that those go automatically into Pats with a check valve for Rob to approve.

Andy: *At that point you are becoming virtually fully automated, but he's got a last-minute sanity check on what is happening.*

Mike: Right, and even that over time … pretty quickly evolves into where there isn't even the sanity check, everything is pulled into the model to do the automatic execution.

Andy: *So if all goes according to plan at some point you might be in the situation where it is completely STP all the way through right into the market.*

Mike: Correct.

Andy: *You have been in this industry since 1979, so you must have come up with a lot of trade ideas over that time. Inevitably, with the way of such things, you looked at some, gave them a quick try and thought 'No, forget it', and shoved them on the backburner. Are you finding now that something that was just not right 10 years ago could be reusable, at least in part?*

Mike: For the most part, if it got discarded, it was because we felt that there wasn't really a sound underlying concept that was valid. So generally I wouldn't say that we resurrect stuff. With some of the seasonal strategies I described earlier, I was always very suspicious of anything seasonal as just a data experiment. Generally it was people saying, 'Ah, if you buy on this ▶