Trading Edges with Linda Raschke

Better System Trader – Episode 049

Andrew: Hi, Linda. Welcome to the show.

Linda: Hey, Andrew. Thank you for having me.

Andrew: It's really an honour to have you here today. I think we've been planning this session for maybe 8 to 9 months now, right? So it's really nice that we finally got together for a chat.

Linda: I know, I know. I kept on putting you off by trying to push it to the next episode, which I'd love to do in honour of Nelson Freeburg, but we'll do this one first but I hope people definitely take note when I get a chance to speak about Nelson's work.

Andrew: Yeah, I'm looking forward to that one as well. Most people would probably already know your background and there are plenty of other interviews out there that go through your career progression, so I don't really want to spend too much time on that aspect but perhaps give us a very quick background for a little context here?

Linda: Yeah, because that will definitely add some character to your theme of system development and trading philosophies and so forth. When I started, it was on the options floor doing market making and equity options, and this of course was right after 1980. It was a very new market and business and nobody knew how to price them per se so the arbitrage opportunities were huge. Being an options market maker was much different than being in a futures pit for example, which is very directional and paper flow, and options were much more strategically oriented, a stronger math game, and everything about options is about relationships. You're arbing the relationship of the price in one series to the price of another or the underlying stock and of course, this was before we had such computerized models that could keep everything right in line and there is really no edge anymore at all.

So coming from that and being from the trading floor, it was a strategic orientation. It was a relationship-driven strategy, and at the time, too, we didn't have computers like we have now, so you're still having to watch the screen all the time and process many different markets and series at once manually. If I'm in a pit with five primary stocks, and each stock is displaying a series of 12 calls and 12 puts, you can see all of a sudden you're juggling a lot right there. We just had the old ticker tape at the bottom and you could see the big blocks go by and you definitely needed tape-reading skills. It wasn't the same as being in a futures pit where you're getting the cues from the broker or the crowd, the noise levels although you did have some of that.

Also the person that originally backed me was a mathematician and relied heavily on logging indicators and bar charts at night, so I had some really good mentors, and I stayed on the trading floor in

Philadelphia and San Francisco for about let's see 8 years, 7 years before I went upstairs to the screens. So it definitely is a different background probably than many of your speakers and influenced my style from there.

Andrew: Okay, so we are actually going to explore those changes that you've seen in a little while, but first let's jump to the trading that you do today. Can you give us some insight into the style of trading that you do?

Linda: I tried to do a blend of three different programs and timeframes. I say program but I use that loosely because I tried to break them out into separate profit centres, so they're not statistical systematic programs per se that would be mechanical in orientation. But the first thing I do is the S&P day trading, and I love day trading the indices and position trading them, but I started the S&P the very first day they were listed. That was a long time ago, and it's just a big S&P contract, and of course, you had to call down to the floor to place your trade or to a trade desk.

And then the second thing I do is pretty much in one day out the next day or two days that was influenced a lot by a different type of modelling where nowadays I always like to say it's get the main idea right, and for me the main idea right is really capturing the trend for the day. That's an important theme for people to think about and perhaps not even the whole 24-hour day. It could just be the 4-hour session. I'll describe a little bit later how I break that up.

Then the third program that I do is for when I get those less frequent sort of daily/weekly chart formation setups where perhaps you could put on a position for a holding period of anywhere from 4 days to 4 weeks.

Then lastly, I always have a special little – since every trader likes to have a little gray area to play around with, I call them special situations. It could be a unique stock or there were one or two seasonal trades that I always used to do, so I kind of lump those into the fourth category because there are things that are awkward to try and model from a quantitative point of view. But perhaps my experience or my whatever it might be, is making the compelling case for me to put on a trade.

Andrew: Okay, so a little bit further on that. I know that you used modelling a lot in your own trading, and I think it's probably used for the concept of as you said "getting the main idea right". Can you explain a little bit more about the role of modelling in your trading?

Linda: Well, first of all modelling is nothing more than asking questions. I like to ask questions of the market and then see what I get back. So I modelled everything under the sun from time of day functions to what happens if you break out a 15-minute bar, what happens if you do that at this time of day and what happens if you try using a derivative of price, which is not very successful. My initial modelling efforts were aside from your basic market timing models, which is what I started off with, such as things like put/call ratios, the McClellan oscillator, breadth ratios, things like that. But then I got down to more nuts and bolts price-oriented things. That's where I started the basis for my money management program, which I did in a formal way starting 1991, when I became a CTA, then I had my own fund.

That was a lot with the edge that a two-period rate of change gave, which is so minute. You're not going to make a living with that in and of itself, but it helped me to capture this 2- to 3-day rhythm that is very prevalent for a good portion of the time in these markets. That was of course influenced by that *Taylor Trading Technique* book and at the time, I had a research partnership with Steve Moore of Moore Research, and he lives out of Eugene, Oregon, and has done really fine work over the ages.

At the time, we didn't have the resources available to us nowadays where you could just run things on TradeStation or something and grind away. But Steve could write everything in his own code. He had a programmer do all this and so we used to grind out thousands of runs on everything from volatility breakout systems to what happened if you bought the first day the the 2-period rate of changed flipped up to everything and the way that we would test it out, we always run it across a portfolio of 20 different markets. We would say that happened if you exit on the close, what happened if you exit on the next day's open, what happened if you exit on the next days' close. We would break out the long trades and the short trades separately, and then we would also block things into periods of 3 years at a time, so you could see if there was an upward bias in the market or a flat period in the market and which markets were outperforming for that block and why.

It was a very robust way of doing this work. It wasn't with the intent to develop a mechanical system. It was an intent to see where is the edge and so that's always influenced my modelling to this day if you think of it more along the lines of actuarial tables, which is very much where Steve Moore comes from because he's doing seasonal work, which is along the lines of actuarial tables. In terms of these windows, these windows but it might not be timing sensitive in terms of your initial entry or your initial exit. That's definitely influenced all the modelling that I do. So from there, I was very blessed with a brilliant programmer who was part of my hedge fund team for many years and brilliant just because he could make TradeStation cry the way he could program it, but we actually used quite a few different programs to do the modelling, and RINA Systems and portfolio modelling, and things like that. That's all he did for 8 years.

I'd say "Hey, Nigel, tell me what the first hour range is in these S&Ps." Then you could see, we could look at 5 years later, "Hey, what's the first hour's range in the S&Ps." For example, when we first started doing this type of stuff, it was 45 percent of the day's range occurred in the first hour and now it's 60 percent of the day's range. You can see all across the board in many of the type of models that we would develop this increased urgency on the part of the market participants. You see urgency off the opening in Asia. You see urgency off the opening in Europe. You see urgency off the opening in the US sessions. That in and of itself then lends itself to doing more modelling, taking these changes in behaviour.

It's a process. It's always a process and it's always just asking questions and I put it in the category of a hobby. It's like the greatest hobby in the world because in truth, I've never been able to develop a mechanical system that I felt 100 percent confident to trade my own money on and there's numerous factors as to why, which I can go into later. But suffice to say, that's coming from a background of an individual. With the fund, we did run some mechanical systems over periods, but honestly the value added to the bottom line was pretty minimal by the time you hired people to oversee the systems and you had to deal with the friction in terms of moving size, it's very difficult. I've never felt comfortable trading them even though the actual models that I use are extremely durable and robust.

Andrew: Okay, so if we take that one-step further, so if I identified some models that determine a positive edge, how does that actually apply to taking trades like what's the progression from that model to doing actual trades.

Linda: First of all, you need to have a game plan for starters. As Taylor, I always go back to him because he's like my little bible with some of his quotes even though he was 100 percent discretionary but you can see he had a process. He had a process for managing his data and organizing his data. That was very important and he always say things like 'having a game plan is better than having no game plan because if you do have a game plan, you know very quickly if it's the wrong game plan'.

So back to that thesis of trading is about relationships. If you're looking for an upward bias and you've come in and you can evaluate off the 7:00 AM reading, you'll know very quickly whether you've got the right game plan or not, so little nuances like that. I'll come in with a bias of perhaps either we're poised for a breakout or a swing reversal, or sort of a mean reversion type of reaction down, or perhaps we're just in one of those persistency of trend extended runs where you want to keep on entering in the first hour in the direction of the trend because when you are in a strong trend, the first hour always offers the opportunity for the day.

Okay now I'm not going to get into the 24-hour session versus the US pit session, but this is a little bit of theoretical and practical for people to keep in mind so you come in with a bias in a game plan. Then it's very much I hate to revert back to tape reading but I'm really good at that. That's part from all the experience, all those years before, but I would bet that anybody that's been trading for at least 10 or 12 years minimum is pretty decent at tape reading, which is just watching price relative to another price. It's nothing more than that, seeing if there is an uptrend, or a downtrend, or starting to hit resistance, or it stopped going down. Okay so that's finding support. That's basic, tape reading.

But you can frame these things out if you want. You can say, "Okay, I will use the breakout of a 5-minute bar or 15-minute bar to initiate. In other words, you start to show you're coming back on the swing and you can devise entries along those ways. In fact, most of the day trading models in the S&Ps will either use a breakout function to enter. Or if you're doing mean reversion, it usually waits until it comes back a little bit in the other direction so you have a little bit of reversal and then it will enter for those who like to do modelling because I know that's pretty much your primary crowd.

Back to what I was saying, you can set up structures but the real key I think is that if you can note an increase in volume, which is a very easy thing to quantify, an increase in volume, range and activity. That gives you your confirmation where your green light is go, that potentially there is a higher timeframe player or stronger money flows at work, which is really the key for the game because face it, 90 percent of the time, your trades are two steps forward, one step back, nickel and dime, nickel and dime. I don't care if you're trading a trend-following system, a short-term volatility breakout, or you're a discretionary trader, it doesn't matter. Ten percent of the trades are probably going to yield 60 percent of your profits. It's just like that. A small percentage of the days of the year are going to yield a larger percentage of the profits. Three months might make your year in bulk, so that's just the nature of the numbers.

The real key is when you get that volume and that confirmation that you've got the right game plan that you've modelled, you've got the right bias, it's really important to increase leverage. It's really important to step it up or tee it up, and you might only do that on 10 percent of the trades but that's a big part of money management that's neglected.

Everybody likes to focus on the risks and the drawdown, which is important, but I think that with the use of discretion, you have a better handle on when to really use that leverage where a model or a system isn't going to tell you that. Does that make sense?

Andrew: Yeah, it does, yeah. If I can just go back to the start where you made a comment about reviewing your models, I think you said, I don't know if it was just an example or not, 5 years. How often do you review or update those models?

Linda: When I start to question that something is changing, some I never review because they still seem to work, you know. For the most part, the modelling that I do tends to use really no more than two variables and maybe one filter. If you do the work along those lines and the type of modelling I also do, I end up with a sample size of like hundreds and hundreds, then I get to see if this a thesis that can work across multiple asset classes and so forth, which builds your confidence even higher. If I have a model that cause a fairly robust outcome like it still holds up.

The main changes in the market that I see and this is something that with systems, you need to be cognizant of because a human can observe theses changes much quicker than a system in general. Okay, so a system usually needs a little bit more data under its belt before it can make the change in context, which is really important. So the context that I'm talking about would be this alternation between the consolidation areas, which are much noisier than ever before, and the ranges are noisier and wider than ever before. In theory, your stocks would need be wider than ever before like for example, 3 ATRs versus the standard 2.5 ATR is a generic way of looking at it. I think this is one of the things that nipped the trend followers in the bud over the last number of years is they are so reliant on that one or two markets outliers to make up for all the stop outs, that's why the individual I don't think is really well suited towards trend following. I don't think they understand that every trend follower has a 40 percent draw down at some point and how long does it take to make back up those losses. These are very important statistics for the people that do the modelling, with your peak drawdown to a peak equity type of timeframe.

The human can identify the changes quicker than the model, and it's all about the context, so you go from these extreme states of very noisy consolidation to extremely efficient mark-ups once that trend occurs or the breakout. I'll just call it a breakout. You can trend on any timeframe. You can trend on a 1-minute timeframe or you can trend on a daily timeframe, but once the horse has left the barn, to use an old expression, you're not going to get the same retracements or back and fill or checks as you used to 10 years ago or 20 years ago, or even 30 years ago. You don't get the small continuation patterns unless you go down to very small timeframes.

And so dealing with these radical state changes is very difficult if you lump all the data together when you're doing your modelling, but then how do you tell your system that you're in a certain type of environment. That I think is a challenge with people that have an initial urge to just lump all the data together and grind 10 years and see if we can come up with some type of edge after optimizing everything, and it's not just going to hold up over time.

Andrew: Are you saying there that the type of environment shouldn't be included in the model?

Linda: I think that you need to be very discriminating as to the model that you're developing and what you're trying to capture. So for example, if I'm just simply modelling what percent of the day's range occurs in the first hour, then it's not significant. If I'm modelling some long-term market timing system along the lines that Nelson did, then absolutely you need to include bull markets, bear markets, flat markets, noisy markets, all these types of things. But that little middle ground is very difficult to determine how you're going to include a filter in your system, you see.

It's very difficult to then pick and choose, or I'm just going to model this 3-month period where we were consolidating after we just had a 5-standard deviation move on the weekly charts. But if I lump together that large period where you were trending for example the breakdown in euro currency, I'm going to get perhaps answers to the question that might not be appropriate for the current environment. So I try to stick with let me put it this way, my program, too, which is a 2- to 3-day timeframe is really a nice sweet spot because I found it's very difficult to look out too far beyond the 2 to 3 days and have a sustainable edge.

But here's another point to make, and I am getting a little bit ahead of myself on some of the type of work that I've done, and that is once you hit these pockets where there is persistency of trend where you throw this little 2- to 3-day timeframe of back and fill out the window, and instead we look at how many closes do we have above or below the 5-period SMA. Boy, I've given away all my lifetime secrets on the YouTube videos all over the Internet that people can Google left and right, but the truth is, I really don't mind sharing this stuff. We modelled out that happens when we have seven closes on one side of the 5 SMA, simple moving average. When we do our modelling, we do again break it down into 5-year segments, 10-year segments, and we'll model every market across the board that we can, and it was kind of interesting because the frequency of occurrence is one thing that we look at. So you would have periods where you hit at least 7 closes on one side of this 5-period simple moving average, 9 to 12 times a year, which is actually significant. Then we would ask what happens if you entered in the direction of that trend on the close of day 7.

This would be very counterintuitive for a discretionary trader because for example let's say that natural gas is just down so hard and it's closed 7 days in a row on one side of the 5 SMA, your instinct, your human instinct would be like, "This is oversold. I'm going to look to buy and see if it can retrace 2 to 3 days back towards the moving average", your old proverbial regression of the mean type of thing. In fact, if you entered on the close of day 7, then it tells us what happens if you exit day 8, day 9, day 10, day 12. No stops or anything, but then again this actuarial window. Of course the answer is the longer the holding period, the larger the profits.

Again more counterintuitive but in a sense, you've got a huge mark-up or markdown and you can't predict how far or how long that is going to go. My experience is then it always goes further than you can perceive or think, and there is no way to measure or predict. I've found every market on the board has gone anywhere from 24 to 28 closes on one side of a 5-period simple moving average.

Andrew: Wow!

Linda: It's extreme. It's extreme so there's a real goldmine here and we can go back and we can look with discretion and say, "Okay, what were the conditions preceding these moves? Is that something that we can capture in our modelling?" See? You can use this deductive logic and build and build, and I guarantee that if you have a spouse, they will never see you for 3 months. It's like going down the rabbit hole. But that's just a good example of this persistency of trend theme, and one of the things that came up with many of the questions that you sent me that people had asked had to deal with the struggle or the challenges that newer people in the business seem to be having. I always see that there is this tendency to want to predict, there is this tendency of saying, "Oh, gee, this market has gone too far, too fast. It needs to come back a little bit."

These exercises, if you will, tell us that we're not very smart if we do that, and the reason I did this modelling it's because it's human instinct. I mean I'm like, "Oh, my gosh! It's sold down 14 days in a row." It's got a little reaction back up, and then once you get your head handed to you two or three times, it's like, "You know I think I want to be on the other side of this for a change. How can I set up this that I can actually capture this instead of having to go through a few learning experiences?"

That's where most of my modelling originated is, "Gee, I don't know what's going on. I know what I'm doing isn't working. How can I find a way to be on the right side of this?" That's the thing, too, about trading is that if you're a discretionary trader or even if you're a systems trader, which I know very, very few people that make a living for their own account off of systems. But if you're interested in this business, you have to understand that things that feel comfortable usually don't work and oftentimes the things that are the right things to do feel the least comfortable. That's where this exercise of modelling things and quantifying things and reducing things down to just little numbers helps eliminate some of these behavioural biases, this whole school of behavioural finance and these human biases that seem to get in everybody's way. Some people can never let go of those biases, but I guarantee if you get down to doing research system testing modelling, essentially doing stuff by hand, it's the best tool in the world for helping you get rid of some of these human biases.

Andrew: All right. Thanks, Linda. That was some great stuff there. You've already mentioned some changes that you've seen in the markets over the past three decades. I think you've mentioned an increase in noise and range and also the impact that that's had on some types of strategies, for instance trend following, but can you give us a little bit more insight into the changes that you've seen and the impacts it's had on other kind of trading approaches or models?

Linda: Well, I have to say every decade I've seen products come and go, so I think that traders need to always keep an open mind that a great product could be there and it might not be there the next year. I mean I remember the one time I trade the value line options in the pit. Well, that's gone. The value line futures are gone. The fancy futures are gone. A lot of these things are gone. I mean look what happened to the soes bandits. I mean there's always new markets coming on board and other products that just fall out for whatever reason, so I think trading in general it's good to start off with one market. I think the S&Ps and the E-minis will always be there, but you know always keep an open mind, too, because here's a great example. I remember it was I think 2006, 2007, and the volatility in the S&Ps

was getting crushed and the average range was getting crushed. I remember joking that it came to fruition that the average daily dollar range in corn exceeded the average daily dollar range in the S&Ps for a period of about a year there, depending on what your look back period was there for evaluating the dollar average range.

That's a pretty strong statement that corn, the most boring but deep market is starting to come to life right now, by the way, for all of those of you who are sleeping on the grains, but the corn had a bigger dollar range than the S&Ps, so the actual volatility changes greatly. At one time, natural gas was a crazy insane trader and now we have changed to the fundamentals, it's probably never going to be that way again because we've got so much supply and new ways of processing it. Fundamentals can change that can actually change the volatility of the market. It can make it greater or it can kill it. It can become a dead market. The efficiency of the movement has definitely become greater.

There's subtle nuances to execution; for example nowadays at least in the futures market, everybody uses icebergs, or hidden orders or time slicing, these types of tools at our disposal and same thing on the stock side. You know I think 20 years ago, your average trade size was 1,500 shares and then it dropped down to 1,000 shares and now it's 100 shares. That's pretty crazy to think about all the volume that's done and your average trade size is 100 shares. That's really pretty crazy. Without saying obviously the impact of 24-hour global markets and the monies that have come out of the Asian sessions has impacted things.

Andrew: What about strategies or models that have lasted the test of time? Have you noticed any commonalties between those types of strategies?

Linda: Well, here's something that will never go away and there's a zillion ways to skin a cat. It's a good exercise. I don't trade them, but the simple volatility breakout systems will always have an edge. The problem is that the friction because you're entering in the direction of the price movement usually at periods where there is less liquidity, so you're not going to be able to move much size on them, and they are also a lot of work. They're probably a lot more work than people think even if you think that you're running it 100 percent mechanically off of your trade station.

If you're doing it across the board, you need to pay attention when some of these sugar opens and whatnot and things like that. It's not an easy game but I think their role has been on an edge with that type of short-term breakout phenomena. But with that said, like I said I like to do the modelling because it's a good exercise to understand when not to take a mean reversion type approach, which seems to be a favourite strategy of short-term traders. It's a good exercise for people to do.

Andrew: On the flipside of that, what about stuff that is broken down?

Linda: My very best system that I ever had was called the golf system and it's something that I developed by hand in 1991, and it was on the S&Ps and it initiated on the close. I felt so comfortable with this that I was doing it myself 100 lots on the big S&P contract, which sounds huge but when you consider the S&Ps were 500 or something back then, it's not as bold of a statement as it might sound. It was exiting for a fixed amount and that's a strategy that still works but then what happened is you have the Asian crisis and I believe it was in 1997 when the Thai currency and all of a sudden the gaps started becoming an issue and it broke down that type of modelling or system.

I had called it 'golf' because it was working so well. All my friends were doing it. I was faxing to everybody. We're all just like initiating our trades on a close and the joke was like, "Hey, we go up play golf the next day." Everybody's dream, right?

Andrew: Yeah.

Linda: I'm just going to let this little printing press run in my basement while I sit on the beach and drink coconut drinks. It's so easy, right? All good things come to an end. So yeah there's little fundamental changes in trading hours or things like that that can impact systems.

Andrew: You've mentioned some of the changes you've experienced over the past three decades, but even today, there are really huge changes occurring. For instance, in recent years we've had an explosion in processing power or computing capabilities, which have kind of, well they've increased the accessibility and utilization of techniques like AI and machine learning. What do you think about these techniques?

Linda: I don't think they make an impact at all. I was really fortunate to have a friend whose name was Ernie – I won't share his last name – but his son was one of the first to do artificial intelligence for NASA and we got out hands on some neural nets. We used to run this stuff in the early '90s with neural networks, which was very primitive compared to what they've got nowadays but some of these things were – a neural network is not something that's going to be a system. It's what you would call a pattern classifier, so it could be a component in a system. It's just going to be a pattern classifier. In fact, that might be an appropriate type of tool for categorizing context that we were talking about earlier, but it's not going to be a system for yourself and people have got to keep in mind with the AI and stuff like that. So what? Everybody has got it. Everybody is competing against everybody.

It just creates more noise, and as far as I'm concerned, I love it. I love it because it gives liquidity. I mean people have no idea how fabulous it is these days to have the liquidity that we have. It's brilliant and you've got billions of dollars on long-term macro strategies. You've got short-term speculators and you've got the commercials and you've got everybody else in there on different timeframes moving, slashing different sized monies around, so I don't think it's changed one thing.

Andrew: Okay, excellent. Do you ever think about where trading could be heading in the future and kind of adjusting your approach to that?

Linda: No. There is one common factor and that is money makes a merry go round, so as long as there is liquidity, that's the number one thing that a trader needs to be concerned with. If there is ever an environment where liquidity starts getting taken out of the system, that's when it could become much more challenging but we've had quite the opposite at huge magnitudes. So I think it would have to be a serious reduction in liquidity before it really impacted some of the modelling that I've done, and then if it happened we'd have some big old ugly depressing bear market, then we just bottom out and flat line like a patient goes dead for a while. Kind of like we had something sort of similar in 1980 and something sort of similar in 1991-1992, the patient was just dead for a while and then they started pumping that liquidity and magically it came to life.

Andrew: Okay, if we just switch back to trading for a few moments, I'd like to ask you about intraday trading because it's a very popular approach especially I think there's a lot of appeal to it, but it can be challenging. You've been doing intraday trading for quite a while, why do you think you've had so much success with that type of approach?

Linda: Well, a good part of it just comes with experience. There's so many subtle nuances to the tone and colour of a market, and it takes a long time to build up to processing numerous relationships, which all aids in day trading. For example, if I'm day trading the S&Ps, I can assess in a pretty brief period of time whether I've got confirmation or non-confirmation with the Russell, with the NASDAQ, with the Dow. I can assess instantly what the market internals are, if there is leadership in stocks, if I've got some momentum for stocks making new highs or stocks making new lows, what the range was before, and where we are relative to the close and so forth, and so forth. Because of experience, I'm able to put this together pretty quickly, and I think that really aids a lot with the intraday day trading.

Now you also need to have a vehicle that has a pretty good length of line and length of line just simply means that if you straightened out all the intraday swings, it makes a pretty good long tape measure there unlike something like corn, which can basically be low to high or high to low and be pretty straight line. It's not going to offer intraday opportunities.

I think all these things are very important for day trading because there's so many extra clues and wealth of information that the market can give us. But I think the people have to understand that putting that altogether is something that takes a long, long time. It's like a radiologist has to go to medical school, then a special school, then he has to spend 2 to 3 years as an apprentice studying all these x-rays or MRIs or whatever the heck they look at nowadays, CAT scans, before he has enough pictures in his head that he can say fairly quickly, "This little gray area on the upper left of this skin is not right." You see? That's what the newer trader is challenged with.

Now there is actually all these wonderful tools that I think are helpful for people. I personally am not a market profile person in that it's not something that I rely on during the day, but I think it is excellent for newer people to look at and evaluate because it allows you to put stuff into a context without getting caught up in this linear bar chart type of thinking. You see it's very, very difficult to sit there and make a living trading solely off like a 5-minute bar chart, even though I would recommend that somebody starting off start off with that and practice making two or three trades because you're going to get high frequency of occurrence.

Don't over trade. Just look for two or three spots. Notice the way that the market tends to have basically three main swings or legs a day. It might rally up, then it has a midday correction back, and then it finishes strong, something like that. That's an oversimplification. But I also thought that Jim Dalton's book, *Mind over Markets*, did a wonderful job of describing – I think it's around page 36 or 40 or something – the six types of days that you can have.

Another reason why it's difficult to model the systems futures run all this generic data on a day trading thing, but for example a trend day, a double distribution day, a normal day, a neutral day, as well as the types of action that you can see off the opening price, which is really important when you start to look at intraday or discretionary trading because in the morning session, there's a lot more uncertainty. And so you tend to get a little bit more back and fill and testing in either direction as opposed to the afternoon where the trend is more known and the temptation to make a countertrend trade in the afternoon is less forgiving if it's wrong and there's usually not the same type of edge. If you want to make a mean reversion type of play, you'll have more success looking at a time of day function such as the first four hours of the morning, something along those lines. These types of movement that we can get off the opening price, is it an open drive? Is it an open test reject? The book describes this. I'd get this book just for these 8 pages or 10 pages, *Mind over Markets*, and the book describes this.

If you're a newer discretionary trader looking at stock index futures or even crude oil or something, I think that's worthwhile. The main change nowadays versus say 20 years ago or however long that book was written is that – I'll just take this one step further. I've mentioned some of the testing that we did around market opening and that is again you can get this type of movement off of Asia open. You can get this off of Europe open, or can get this off of US open. Actually, there's a 7:00 AM Central Time reading because 8:00 AM is when the bond traders used to sit down at all their institutional desks in New York and pretty much still do, that's when they sit down and you get a little surge of activity or volume right around that time, even in E-minis, believe it or not.

Back to another thing that we did with our modelling just for fun, and that was you know I told you I had this brilliant guy who could model anything under the sun. First we started off modelling time of day functions with the S&Ps, basically the pit functions, and found the sweet spots in the distribution of the times, where the high for the day or the low for the day was made. For example, if it was going to be an up-trending day, the low for the day came most frequently about 25 or 30 minutes after the opening, so you can test down a little bit first and then move up. Interestingly enough on the short side, the high for the day would usually come in the first 5 or 10 minutes.

The message is that the urgency on the short-sided market is much greater as a parallel in many of our models. That's why we always break up the long side and the short side, the short side had a lower holding time than the long side. These 2- to 3-day models, we can be long for 2 to 3 days, and it tests out best but the short side, you may want to close it out after a day and a half, and that's just that the markets go down a lot faster when they go down.

Back to this time of day function, so I was like, "This is such as piece of cake! I bet we could do this with every market. Wouldn't that just be a dream to find a few little sweet spots in the day, right?" Of course we grind everything out and came out with zero, zippo, zippo that was statistically significant. I'm like, "No! That's not right because I'm seeing this and I know. I know there's something here." So we ended up modelling it out by breaking down the session openings and of course that's where all the gold is because the high for that session or the low for that session pretty much comes around that first 30 minutes of the session opening like okay.

That's how I ended up breaking down my day into four segments. I've got Asia open, Europe open, US open, and then basically US afternoon, which can be dull in some markets but actually not so dull in other markets. I'm sure everybody is aware of the time of day function with Europe close, that's a given. More often than not, your trends are going to end Europe close plus or minus 30 minutes and then if it resumes, then that is in part depending on the volume for the day and some other factors. So it's just another fun example of modelling, but it's not going to give you a mechanical system, but it gives you very useful information by which you can incorporate either as a confidence level. If you do have a system, it's going to give you that extra bit of confidence that you're with that trend for the session.

Then here's another thing that we modelled out. It's really rare that you get four consecutive sessions of trend. It's less frequent – I mean it's not so frequent that you get three consecutive sessions of trends, so for example what percent of the time do I get Europe trend or Asia trend, Europe trend, US morning trend. You see what would be more likely if you trended strongly in Asia and strongly in Europe, the US morning will be rotation or consolidation and you might trend in an afternoon, or you could get Asia rotation. Perhaps people are waiting for Europe numbers or something and then Europe can trend and US morning can trend real strong. They're just little subtle nuances that you see build up in your head over time, and these are some things to model and you can actually if you wanted to do little breakout systems, I don't know break out about 15-minute or 30-minute bar off the first opening range. That concept of moving outside the initial balance is not a new one. Like I said, you won't see your spouse for 3 months once you start going down this rabbit hole.

Andrew: Yeah. You just gave people a lot of stuff to have a look at into investigate it further. Thanks for sharing that. It was really interesting. Now I'd like to move on to audience questions. We have had an absolutely huge number of questions submitted, literally pages of them, so we're not going to get time to go through all of them, but there are quite a few that were very similar so I'm going to condense some of those into some more general kind of conversations.

The first one I'd like to chat about, which we have already discussed a little bit already, there are lots of questions on what's your favourite setup, your favourite entry technique, favourite indicators, so can you give us some insight into your favourite setups?

Linda: First of all, the best setup has unfortunately a low frequency of occurrence. You'll see that flat out. It is important to be discriminating and selective when you are a discretionary trader, if you're looking for a particular configuration. But those ones I like to call them 90 percenters, they just don't happen very often but I love daily weekly chart formations, for example an ABC consolidation and an overall trend. When you're in a trending channel, that's something that will work on any timeframe. It just really doesn't happen as often as you might think. I love using the 20- to 40-minute charts because they support this 2 to 3 days up, 1 to 2 days down, and we model all of this with ATR functions in terms of being able to quantify structure. The length of the swings, duration of the swing, I mean you can go to town with this stuff, but I love the type of chart formations that you can see say on say two 40-minute timeframes for those of you that like bar charts.

I love terminal wedges like the daily weekly chart formations. For example, I mean a beautiful one that occurred a couple of months ago, was in the Canadian dollar. They all have the same even crude oil bottomed after an extended weekly downtrend and those three pushes and that terminal wedge leads to an upside swing. But again, your frequency of occurrence is just not that often. The other thing to think about with setups, you know everybody loves to talk setup, what's a setup. Well, you have to keep in mind that when you go down and you allow not just the 90 percent trades to creep into your portfolio if you will, what will happen is you need to then just treat it as a big numbers game and recognize you can have a setup and you can initiate. But the volume might not come in. The market is just going to give you whatever it's going to give you and it might not be that much. Really you want to go where the volume is and the market that's already in play, I think that's really important instead of trading these dead markets or anticipate to break out I think is an exercise in frustration.

Andrew: Okay. Another common group of questions that we got were on trading performance; for example, why do traders fail, how to cope with losses, the attitudes of successful traders and how to get out of a trading rout. So you've seen a lot of traders I guess come and go over the years. Has there been any commonalities between the traders that have succeeded and perhaps those that haven't?

Linda: I think so, absolutely although everybody has different personalities, but they first of all are a bit of loners. They're very independent. They don't sit there and look at Twitter and blogs and TV and all this nonsense during the day. I really think that if you want to be successful in this business, you have to make an extremely concerted effort these days to eliminate all these distractions. It's going to take you out of your game. It's going to make you question it. You need to do your own work. I see people when they come into this business, they're not cynical enough, honestly. You need to question everything. Everything is being put out there and you really need to be cynical about it even anything I say.

If I give you something and say, "Hey, this is a great pattern," don't believe me. Go test it for yourself. Do your own modelling. Do your own research, and make it your own and do not believe anything that anybody says out there in print. You have to do your own work and learn it for yourself. I would also say that the people that I see with the best success either have some type of background like professional sports, or poker, or cards or music or some performance-oriented discipline because you got to stay in the moment. You've got to take it one day at a time and you've got to understand it's just a game. You have to put it in a context of numbers and a big stream of numbers.

If you are fairly emotional, or reactive, or impulsive or anything along those lines, this is not just the job for you, period. But on the other hand, the gold is if you can find your own little groove, or create your own little playing board. That's a better way of putting it is create your own playing board, that it is so scalable that there's really an insane amount of money in this business, it's so scalable if you can come up with your own playing board and that's what everybody should strive for is ultimately, where this is going to be scaling so your own trading account increases in size. As it grows – trust me – the compounding is incredible, or if you really want to take it to the next step in the big leagues, there is a hunger out there for new talent. But don't go knocking on doors until you have a real-time track record with your own money and have done your own research and have your own game that you can offer something new and say, "I am not going to be correlated with this group and your portfolio and I'm not going to be correlated with this group and your portfolio because I just specialize in seasonality in the grains, or I just specialize in this short-term breakout on tick charts.

Whatever it might be that you need to find your own little niche is really important and most of the successful traders that I see, I could be on Skype with three or four of them and one person will be saying, "I'm long right here. It doesn't mean anything to any of the others." It's like they're not going to care. I don't care what anybody's position is, and you have to be that way. If it's going to influence you, you can't let it into your day. Anything that influences you or pulls you out of your game, don't let it into your day.

Andrew: Okay, so we have a question here from Casper. Casper's trading results have been stuck in a rut for a few months. He would like to know what should he be looking at?

Linda: Well, two things. You want to make sure that you're not overtrading or making impulsive emotional reactions and so forth and so forth, stuff you've already heard. But let' just start with trade management because if everybody out there could eliminate their one or two biggest losers, I guarantee their bottom line would probably be 50 percent better, so start with trade management. If you're in a rut or you just feel you're a little burned out or too close to a market, it's okay to step back and do research. I mean after my biggest losses, I find it extremely therapeutic to do research because it actually makes me feel productive although probably 95 percent of my research ends up going by the wayside.

But let me just address this issue of trade management because it is probably the most neglected area of system development, and I don't think it's true that you can just flip a coin and with trade management end up with a profitable bottom line. Definitely, your entries count. There's no doubt about that, definitely but the way that you manage a trade really can be addressed in a simple exercise. I'll tell you what I do. We went and we analysed market structure, you know the swings, the retracement, and a trend, is it a double bottom, is it this or that, all these types of things.

We categorized everything. Does it optimize out to play for a small target? Is it best to play it for a large target? Or is it best to trail a stop ? All right. Let's assume you weren't able to scale out. You just had single in and single out. Let's make this a little game. I use a charting platform for my execution called PhotonTrader. It's actually pretty cool because it has these candle volume charts and you can see the volume on the size of the bars. It's really swell, but I always said wouldn't it be fun to put a little menu on the right-hand side for newer people and all they have to do is initiate the trade. I mean because people love to look for entries, right? Nobody knows where to get out of these things but we just love to pull the trigger.

What we did is we modelled playing for these three options. You can pretty much draw some very robust conclusion about the types of patterns, or if you want to call them setups or whatever conditions that justify trailing a stop, which actually doesn't happen nearly as often as you might think versus the types of patterns that model out best playing for a small target, which is the highest frequency of occurrence versus playing for a large target. I used to joke with this Photon platform that I trade off of it wouldn't it be cool because you can trade off the charts.

It's probably easier than any other platform out there that gets filled a little box on the right-hand side and the trader could find the entry because everybody likes to look for entries and then check, do you want to play for a small target? Do you want to play for a large target, or do you want to trail a stop? Of course, it puts in an initial stop, and then it hikes it up after a certain amount of time goes by, sort of like a parabolic type of function. Then you can go to the kitchen and make your peanut butter and jelly sandwich. You could take the dog out for a walk, whatever the case maybe. Let the machine manage it

because that's where everybody messes up. Everybody likes to get into trades and it's messed up trying to manage them.
If you're in a rut, look at your own trading, and I guarantee a good part of it either you're overtrading or the trade management attentiveness is falling apart and everybody is allowed one mulligan in this business for sure but you can still bleed to death with a zillion other nicks, right? It is true. A zillion nicks, you'll bleed to death, and you don't want to end up in that way because it's very frustrating, so if you find yourself frustrated, you're not going to be in a good spot for discretionary trading for sure.

Pour yourself into research. Why don't you look at your setups and say, "Will this model our best trailing stop, or would it model our best playing for a few ticks type of thing?" Make a little game and try and reduce the ego and the calling of where the market is going to go and having control over it and reframe it, you see you're reframing it into can I pick the best trade management option. If you wanted to, you can keep a little notebook of these things. Then you kind of see, "Oh, I picked option A where option B was best," or "Gee! I'm trailing a stop too often and therefore I'm giving back too much in retracement," or "Wow! Lo and behold! I'm not putting any stops at all. Maybe that could be a problem."

I do subscribe to using very wide stops initially because they should be worst case scenario. From my own trading, I try not to let my stops get hit. If it doesn't feel right or it's not working or whatever, my favourite button on my trading platform is the flatten key because it gets flattened. It's uncomfortable and it eliminates all resting orders and everything. In fact, I even had my programmer build in a 'flatten my portfolio' button and you would be surprised how often I use that.

Lots of times for a good reason though, for an exit on these big reactions and I might have five or six different positions on it, I just wanted to capture. I see the equity curve bounce up, and by the way I do tend to trade a lot off of my equity curve as well since somebody asked. I found that my equity curve too much was going well up in the morning session and then I was giving it back. I'm like when I see that equity curve get up to a certain point it's like the biggest loser. I want to bank it, and so sometimes I found out it it's very difficult even for me to be managing five positions at once, so if I just flatten out, it gets rid of everything and then I can regroup and I can look and say, "You know I really like that position. I want to put it back on."

I can do that and I can usually do it fairly gracefully. I might only put on one more thing, so that's what worked for me, but that trade management is really important for sure, for sure, for sure, and by that, your equity curve, your bottom line is even more important because I like to trade a lot of correlated markets and you've got to keep that in mind. If you're long in gold and silver, that's a 90 percent correlation there for periods or same thing when you've got this old risk on risk off, which isn't so prevalent anymore, so it's not even managing an individual trade. It's managing the correlation in your portfolio.

Andrew: Yeah, thanks for sharing that insight into trade management, Linda. A question from James. "Can you identify a couple of reasons why profitable trading is so difficult and takes years to achieve?"

Linda: I think the ratio of valid patterns to noise is very low, probably much lower than people realize. And so this change between states that we talked about at the very beginning, this efficient trend versus this

consolidation noise is more extreme than ever. That's hard for people to grasp. Then beyond that, these human biases are so difficult for people to overcome, so that's why there's this whole area of behavioural finance, and I'm not even going to get into the fact that probably 90 percent of these people shouldn't be trading because they're not suited towards it with the right temperament and so forth.
But you'll also have much greater success if you don't have to make money for you. Let's say you have a spouse who has a very steady job and you don't have to worry about paying the rent. That's a challenging position for people to be in because most people cannot let go of the dollar amount. They feel that they to make a certain amount and that's a very difficult place to be in to make it as a trader. It's like a professional golfer saying, "You have to make this chip shot on this 17th hole or you're going to drop out of the rankings." I say many people can't deal with that.

Andrew: All right, thanks, Linda. So I might jump up to some questions on trading technique. We have a question here from Karl, which you kind of touched on a little bit at the start of the chat, but Karl would like to know, "Could you share with us why you have chosen discretionary trading based on indicators rather than automated trading?"

Linda: Well, automated trading, you need a serious infrastructure and serious ability to run zillions of strategies 24/7 around the globe, so if you want to see the Kentucky Derby winner of auto trading, just simply Google Renaissance Medallion Fund, all right? It's a different type of business model. Suffice to say, I have yet to see a person with auto trading make a successful living for a prolonged period of time. By that, I mean you got to be able to put two or three kids through college, mortgages, everything under the sun. You need a very consistent sturdy revenue stream and I've never seen that happen on a mechanical system. With an individual, and I'm not talking about not just 3 or 4 years but being able to do it continually. When I had my hedge fund, we did make a foray into trying to build the infrastructure to take advantage of a lot of the modelling that I had done.

It was pretty serious just so you know that I invested a lot of money, over $3 million. We bought a technology firm that had about 80 servers. This is before the CME had moved out to CMARC, and we hired a person that was writing our own gateways, which was a very serious venture then. We didn't have access to the type of data now where you can write somebody else's API and use third-party data on the backend so this is what you had to do 10 years ago, write your own gateways if you wanted that type of infrastructure.

It's intensive because you know every single exchange has to have different gateways. They have to be managed, and updated and all of a sudden you got like a team of five people employed just in this one area and then everything becomes outdated and it was crazy. You know I think after about $3.5 million, I stopped the bleeding and cut bait, and said, "This is not the road I want to go down." It's a very, very intensive business and I have the greatest respect for these organizations that have been able to do that, but it's not trading. It's a different type of business. These people when they start worrying about algos and this kind of stuff, let them do their thing. More power to them. They provide liquidity to the market, but it's a different game. It's a different business and I'll just leave it at that.

Andrew: Okay. Thanks, Linda. I've got an interesting question here from Bengt. The first part of it we've kind of discussed already. Bengt is asking about strategies that you maybe had to adjust or stop using over the last so many years but the second part this question is quite interesting and it says, “In your opinion, are there any eternal truths that can be applied to shorter-term trading?”

Linda: Well the truth is (1) You can’t predict. I think too many people try to predict. (2) It’s a numbers game. It will always be just a big numbers game like poker. You can have a great hand but that doesn’t mean that you’re going to win the pot. You have to keep playing the game and stay in the game. I think the biggest truth for me is something I already repeated once that the bulk of the profits occur in a very low percentage of the days usually when they tend to be an increase in volume and range, so it really has nothing to do with setups per se. It’s staying in the game and waiting for the market to give you that opening and that’s always going to be the case.

Andrew: So I’ve got an algo trading question here from George. It says, “At the moment, around 70 percent of trading activities by algo trading by big banks, and around the corner we have AI such as Google’s Deep Convolution Net.” George’s question is, “Where should the private trader focus to make a profit when the likes of Google AI team up with Google Capital to enter the trading market?”

Linda: Why speculate on things that hasn’t occurred? I mean I don’t really think it’s going to make a difference. You’ve got like I mentioned before, you’ve got billions of dollars doing macro strategies, offshore hedge funds, commercials. The main opportunities in trading come from supply-demand imbalances. These aren’t things that Google AI creates. It doesn’t create supply-demand imbalance. I just would assume that they’re trying to take advantage of them just like you are, so you have to assume that this marketplace is exceptionally big. You have no idea how much money there is out there, so I really think there’s room for everybody and maybe if you had 20 teams all using the same type of Google AI constructs, they’re going to be competing against each other. Everybody is mining the same data, and if anything they’ll just increase noise a little bit. So what? There’s strategies that then capture the noise level, so I don't think it matters.

Andrew: Yeah, okay. Thanks. The next question is from Marcus, “Is there any single key understanding of the markets that you now know that you wish that you had discovered a long time ago?”

Linda: Yes, relative strength especially in the ‘80s. It took me about 15 years to figure out the power of relative strength and it’s huge.

Andrew: Okay, now. I’ve got a question here from Victor. “How do you adapt trading in difficult market conditions?”

Linda: What are considered to be difficult market conditions? For me, difficult market conditions are low volume chop, in which case I cut back my leverage and activity. Increase in volatility provides opportunity so that’s gold to me.

Andrew: Okay now we have a question here about volume, and the question is from Rory. “What part does volume play in your trading and what volume indicators do you use or recommend, and where can I learn more about volume in trading?”

Linda: You know that's a wonderful question because we have in our disposal volume statistics nowadays that we didn't have in the futures markets 20 years ago, so it's truly a luxury and there's so many different ways of incorporating these new models or even looking at it visually. For example, I mentioned if you want a compelling visual study just look at the volume charts. That's what I have on my PhotonTrader platform because sometimes charts make a more striking impact than statistics, and this candle volume is simply that the width of the bar equates to the volume so it makes very easy to see initiating volume at the beginning of swings, as well as the climactic volume at the end of the swings.

There's also, I noticed there is a huge increase in volume upon the penetration of little intraday swing highs and lows. I suspect it's probably from little strategic algos in the marketplace, little breakouts, they're just there to grab a few ticks. But in general, volume is what gives me my green light go, so anytime I get an increase in volume, it's a confirmation factor, increase leverage, trade bigger size, there you go.

Andrew: Have you found that volume is becoming less important because there is an increasing number of trades that are being executed outside of the exchanges or not being reported as part of that exchange feed?

Linda: No, I haven't found it at all. I mean I can tell you that if I look at the volume, first half-hour volume on the NYSE, which of course is just a very small percentage of the overall volume, but it serves as a proxy extremely well and for what's happening on the day. I can compare today's 30-minute range to the previous 30-minute range to the previous Monday's 30-minute range, that kind of stuff. If there is a significant increase in volume over the previous day, you'll see it in the bonds, you'll see it in the financials, you'll see it in the currencies, you'll see it in the metals, you'll see it in a lot of markets. Until it stops working, I'll continue using that but there's just lots of ways to incorporate volume specially if you're looking at breakouts from daily chart formations, you obviously want to see increase in volume and range or some kind of breakaway gap, or something like that. They're all confirmation factors like yes, you're on the right track. Go for it.

Andrew: Okay, now we have a question here from Geo. "The biggest problem I and probably others have is that none if not few of the things that you usually discuss are actionable. Neither are they statistically verifiable, so I would like Linda and your other guests to discuss at least one repeatable technique that works over 70 percent of the time."

Linda: Ho! Ho! Ho! We want Santa Claus, don't we? Ho! Ho! Ho! [laughter]. Playback my interviews so far. I'm sure you'll find plenty of little tidbits there but first of all let me say a large percent win does not necessarily translate into the most profitable systems like for example that one that I mentioned entering on the close of day 7 and exiting 7 days later when you get these persistency of trends phenomenon. It only works slightly better than 50 percent of the time, but if you trade that across the basket of say 14 markets that's never had a losing year, so it kind of depends on which tree you're barking up. But let me just give you a few little tangible things, you can test channel breakout with a very small target. You can get a win rate of 70 percent. You can do breakouts of 15-minute bars at certain times of the day or breakouts of anything and get 2 to 4 ticks 85 percent of the time. Are you going to make a living off that? Probably not, but I can give you a win-loss ratio up there pretty good.

You can model it to your rate of change, making new highs or lows, say with a 30-bar look back and you can get 0.5 ATR more in the direction of that about 70 percent of the time, or you can model standard deviation functions and get win rates over 70 percent for example after you've just had a large standard deviation move. That would be the appropriate time to employ a standard deviation function. There's a million ways to skin a cat. The problem I see with beginners is that they want to employ something that is statistically verifiable that they expect to occur within the first 10 to 20 trades that they make. Just make sure than when you do your own testing or modelling that you had a large enough sample size, including all different types of market environments, and then you'll build up your own confidence factor by doing that modelling testing yourself, which it sounds like you obviously do. Make sure that you examine the data to see the max consecutive losers in a row because any system that gets a 70 percent win-loss ratio I guarantee is going to have six losers in a row at some point in time so make sure you look at those little nuances in that.

Here's a big tip: I prefer average true range, price-based functions as opposed to anything that's derivative-based but hopefully I gave you a few ideas. How about that?

Andrew: Okay now we have a question here from Ali, I think I pronounced that correctly. "I'm a beginner system trader and I've heard on this great podcast and I'm sure many other places that some traders use walk-forward analysis, some use an out-of-sample in the development, and others just use a whole dataset. So what's your advice for beginners on what to do when faced with such dilemmas?"

Linda: First of all, let me address, you know you phrased your question from extremely successful traders that use walk-forward analysis, okay. Just let me catch you there for 1 sec. How do you know they're extremely successful traders unless you've reviewed and audited long term performance records from being a CTA or hedge fund? 2 or 3 years may or may not be meaningful. I just say this again to caution everybody out there who seems to take everything with a grain of salt, even when I say especially beginners back to this thing who don't have enough cynicism.

My answer is going to be it depends on what type of modelling you're doing. Modelling is simply asking questions, so if I'm going to ask for example what percent of the US sessions range occurs in the first hour, I might look back 5 years and that's fine. There's no need for an out-of-sample testing on that type of question, but I will still update that 3 years later. If I'm developing a system or a timing model, then for sure, I wanted to develop my system of the data in the middle and then see what happened. I'll sample it both at the beginning and the ending blocks of data. There is not one set in path answer to that.

It really depends on are you trying to develop a mechanical system, or I would say if so make sure regardless whether you're doing it out of sample or not, that you do include all types of market conditions, bull markets, bear markets, extreme volatility and flat volatility because what people tend to do is they tend to lump all the data together in their system development, which is not good. That's why I preferred to do 2 blocks, do 2 years, do another 2 years, do another 2 years, and then compare the results because data is very streaky. Something might work great for 3 months and then not work for 3 months. It's very streaky, so you have to see where the wins are coming from, where are the losses coming from, what happens if you drop off the three biggest wins or the three biggest losers.

This really could a whole textbook or whole another podcast on this topic. That's my answer. It really depends on what you're trying to model as if it's important to have an out-of-sample or not.

Andrew: Okay, now a question from Mestengo: "What evidence can you provide that you tried the exact same system methods that you sold?"

Linda: I've never sold a system, nor do I teach, nor do I sell courses, nor have I ever sold any courses. I hope you know by now that I tried to do a lot of modelling and discretionary trading. Sometimes you can capitalize on that and sometimes you just have a bad day, or you have the wrong game plan or whatever, but I still think that over time it doesn't matter if it's a system or you're a discretionary trader or whatever. You're still going to be there for a certain percentage of the great trades and you can trade everyday but you're still waiting for that opening where you're in sync and the market is in sync and you can use bigger leverage, and that's really the name of the game. It's not so easy that there is a black and white system, so I hope that gets a little insight.

Andrew: Okay. Now a question from Ken on trend following. "Do you find more benefits trading with the trend or against those trying to trade them using how you would expect the trend follower to trade?"

Linda: You know I wish people would drop this trend following hang-up. Trend following is very loosely employed like it's a classic turtle type of approach, which is not viable for the individual unless you're a very large firm with tons of capital to employ your strategy across a multitude of markets. You're just not going to survive while your portfolio is experiencing an 8-month drawdown, which it will invariably will.

Let me rephrase that for you. Trade in the direction of the supply-demand imbalance and sometimes this occurs right at the start of a new swing in the opposite direction, or it can come from a breakout, from a wedge, which might appear to be a total countertrend trade in the case of a terminal wedge. However, you're trading in the direction of the supply-demand imbalance. Then you will see that trends occur on one minute charts, hourly charts, daily charts, etc., etc., but I think that's a better way of thinking about it is trying to trade in the direction of the supply-demand imbalance as opposed to this "trend-following" cliché. I hope that helps.

Andrew: Yeah, okay. And now we have a final question here before we move on. From Nikhil, "Has the market really changed or is it the same as it was three decades ago from the perspective of market risk?"

Linda: Well I have to say this, the average true range is much higher in almost every market, thus I trade with lower leverage than I did many years ago. I usually break things down by unit size. I'll do a number of contracts per 100,000 and that number of contracts is based on the daily dollar range of that market. So it's much lower now than it was many, many years ago. I can remember when the big S&P contract had a daily range of 3 points for a period of 3 months. I can remember when $2 was a huge daily range for gold. On the other hand, a huge plus these days and I do consider the larger average true range a huge plus, too, is that the liquidity is 10 times better and that is a very important thing when evaluating your risk. In particular, how easy is it to get out.

Nowadays in the E-minis, you can get out of 500 contracts, no slippage, one mouse click in a millisecond. That's a huge luxury. That's a big change from three decades ago. Yeah, you have to be mindful of the leverage that you're using, given the much larger average daily range, so I hope that is a good answer.

Andrew: Thanks, Linda. Well, I think we've covered pretty much all of the audience questions. Thank you very much for that. I just like to start wrapping up with a few quick closing questions of my own.

Linda: The surprise! I can see it. I'm getting blindsided. Okay, lay it on. All right.

Andrew: [laughter] The biggest lesson you've learned through trading?

Linda: Like which one of 5,000? I'm writing the world Britannica of lessons I've learned from trading. The importance of really keeping an even keel and steady balance and I know it's true with me and I know it's true with others that you're going to perform best when you have the least amount of distractions in your life. If you're in a period where you're going through a divorce, or moving, or having an IRS audit, or poor health, or any of these types of issues, even if you think you have a nice little mechanical system running in the background, it still needs attention overseeing it. If you can't give something your full 100 percent committed time, it's okay to step back.

The markets are going to be there every single day, so for me in the beginning it was very difficult for me to take a vacation. It was very difficult for me to say no. There's a time to close everything out and go away and recharge your batteries because it is a very compelling game, and it's a very seductive game. If I take a week off it, it takes me 2 or 3 days to kind of get back into the groove and the flow and like what I like to call my roadmaps. But it was hard for me to do that many years ago and so as true with most people, you're subconscious is going to say, "Sorry, kiddo. I'm going to like let some sloppiness creep in and bite you in the butt where you're just going to need to take some time off." That invariably happens. I learned that a couple of times way back in the '80s but it is important to step back, regroup, get a fresh perspective, recharge your batteries. There's nothing wrong with that.

Same thing with you're not going to make money sitting in front of the screen 24 hours a day. You need to break after the markets close, you need to go out, do some gardening, walk the dog, or go to the gym. I like to go ride the horse, play some tennis. Do whatever it is. Do whatever it is that you need to do to completely get your head out of the game. I think that's really important to not think about the market for a period each day.

Other lessons I've learned just over time is that you just I think that the more I've been in this game, the more I know that I don't know. I think Maria Muldaur wrote a song something along those lines. There's just so much that continues to surprise me and amaze me going on 36 years now. You just never can predict how far markets are going to go up, how far it's going to go down, these types of issues. That's hopefully words of wisdom that can help everybody.

Andrew: Yeah, yeah, that's great. Thanks, Linda. Now you've already mentioned one book earlier, Jim Dalton's book, but do you have any other favourite trading books you can recommend?

Linda: Well, I really like *Taylor Trading Technique* not because it gives any pearly words of wisdom on setups, or conditions, or trading. But you know he's got some of the quotes there are just so appropriate even though he wrote this 30 years ago, coming in prepared to trade each morning and the importance of doing your own work and never make a trade unless it favours your play. I probably went through about 10 copies of that book just highlighting the stuff that made sense to me, which was about 10 percent of it. In fact, I've got a mind to rewrite that book, in which case it will probably be reduced down to about 6 pages, but you can see after all these years, I've got a list of six books that I would love to write. But they're probably never going to get written because the trading takes up all of my time.

Andrew: Yeah. Okay, what's the best way for listeners to get in touch with you or learn more about you?

Linda: Two words: I have a fabulous website. It basically consists of one page. Its intent was to be a blog in which I post to about once a month, so you can see my writing prowess is very deficient. There's a contact form on my website. You can ask any question there and I'm happy to respond back. Just give me 2 or 3 days.

Andrew: That's great. Thanks so much for your time today, Linda. Is there anything else that you'd like to mention before we finish up?

Linda: Just stay tuned for my podcast in honour of Nelson Freeburg, a wonderful person. I just have to say that everything I've shared today hopefully is in part numerous things that people have shared with me along the way in terms of not necessarily these particular details. But I wouldn't be where I am today if certain people haven't helped me along the way and shared things and the camaraderie. That's the biggest appeal of this industry to me, yes I'm a loner when it comes to my everyday trading and so forth, but there's such a wealth of incredible individuals in this business, and I really appreciate you're doing those podcasts. I know that you've been able to be a vehicle to share so much with other people, and I'm just grateful to be part of that process. Hopefully we'll talk again when I do Nelson's talk.

Andrew: Yeah, thank you very much, Linda. Again, I really appreciate you spending time with us today. You shared so much great stuff with us, which I'm sure is going to help lots of people, and I'm looking forward to our little chat about Nelson Freeburg and some of his research, so that one will be coming up very soon. But thanks again for spending time with us today, and it really was a pleasure, so all the best.

Linda: Thank you, Andrew.