



MODULE 4 UNIT 1

Video set Video 1 Transcript

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NIR VULKAN: Hi guys, welcome back. We're about to delve into perhaps the most technical part of this course where we will take you through a very detailed spreadsheet, and where you get a little bit of a flavour of what it's like to build and optimize a trend model. I hope you will enjoy it.

NIR VULKAN: We have this long spreadsheet. It's going to take some time to go through it. I will guide you through the different tabs and then there will be a set of questions at the end, and you have the ability to then interact and play and spend as long as you need with the spreadsheets and all the add-ins that we have created there for you.

So, we begin with Tab 1, and as you can see, what we have here in Tab 1 is a simple data file and this is the DAX index future data. And this is from the end of 2000, so the beginning of 2001, and it goes all the way down, all the way down to the end of 2012, the first day of 2013.

We have here, if you like, the graph of what I did is I graphed the daily prices of the DAX index. The DAX is the future index for the German Stock Exchange. I want to tell you something about this graph, and those of you who know futures will already be saying, "What's going on?" because the DAX index, like most futures, roll four times a year, which means at the end of every three month period, one contract matures and then a new one becomes what we call the "front month". And this is to do with the history of future markets and they were initially created for people to, of course, use them in order to hedge against fluctuations in currencies and stalking the six movements and so on.

The way we use it, because we're just speculators on this market like pretty much 99% of the other people who use future markets, is we're just speculators and therefore we don't want the contract to mature. What we do is, a week or two before the maturity date, we roll, which means we move our positions from the futures that's about to mature to the next forward month. What you see here is a 1 file – and that's what you have to do if you want to trade these things – that you artificially connect by connecting the contracts every three months when they roll. And the way we do that is we look at the date of the roll, we basically look at the close of the new contract and the close of the old contract, and if there is a difference between them we artificially add that value backwards to all the data that we had so that they look continuous. So that you see in the data, there's no jumps due to rolling, yes.

So the market goes up and down based on the, obviously, on the futures of the value of the future of the DAX index which corresponds to the value of the DAX, of course, but you don't see any discontinuity to do with rolling. This is something that people do, so, in reality, if you actually hold the position, so if you're trading a system, and you're holding a position, and you have a position in the DAX that's a long position in the DAX, and your contract that you're holding is about to mature, what you would do is you sell that position and you buy exactly the same position at the same day, pretty much at the same morning, in the new month.

And so, what I have here is, as I said, is the stitched-up-together close value for the DAX index where it's been backward rolled. In other words, the exact values of the Open, High, Low, and Close are only correct in the last few days. If you look backwards, they have been

backward adjusted, and if you look 12 years back, they've been adjusted so many times, because every time the contract rolled, it's been backward adjusted so there is a lot of additions that have been made to that. But what you still is, remains true is that if it went up one tick or down one tick in a day that will still be in the data. It's just that there's a shift of the data so that it looks continuous.

If you want to learn more about how you roll future markets, click on the following link.

Click the icon to learn how you roll future markets.

NIR VULKAN: Okay. With that in mind, we can now look at this market, and look at it with your eyes and see what you think. Do you think there are trends in this market? Do you think there are trends? Do you think there are periods where you could make money by following the trend in the market? Well, I think so. I think you can clearly see that there are long periods when it's sort of directional, and there are also periods when it's very choppy, so you can sort of see that a trend model, potentially, can be fitted here and possibly can help make money.

And what we're going to do in the next few tabs is go through this process, and I'm going to guide you through this process, and we'll see how it works in this relatively simple example.

Welcome to Tab 2. So what I want to show you now is what a very very simple model, not a good model, looks like. So what we're going to do is we're going to restrict ourself to a position of 1 that can be either long or short, okay? And we're gonna hold that position for the whole 12 years of our data. What I would like you to see is that the spreadsheet automatically then builds a model, what a model like that would look like in terms of your P and L. So you can see the highlighted yellow and you can click on this thing here, and let's select "long". And, what happened here is the model then assumes you were long the whole time, so you bought a lot of 1 at the beginning of the model and you held it for the whole 12 years, okay?

Again, not something I would recommend to do, but look what happens. So you can see we're losing money for a long long time, then we're making money for a bit, and then there's actually an area where we're having some profits, hooray, and then it sort of goes away. So, this is what a model that holds position of 1 looks.

And what about if we go short and we, sort of, we minus 1 the whole period, it's sort of a mirror image which is what you'd expect of that. So it's a better, it's a better model, but it's still not a very good model because if you would look at the risk-adjusted returns for a model like that, it wouldn't be great. Nevertheless, this is a beginning of a model so you can see what the model looks like.

Now, we're going to look at more sophisticated models where we can, sort of, buy and sell based on signals of the market, but you can see that the spreadsheet does that in stages. I encourage you to look and to see exactly how this is done, and if you scroll down the spreadsheet you can see how that's been aggregated and how the P and L is computed.

The principles are very simple. If you hold the position of 1 and the market went up and you're long, you made a profit. That's it, yes? And that's the model then credits you with that profit and so on. In reality, of course, you wouldn't— this is what we call theoretical

profit or theoretical loss because you don't actually incur this profit or loss unless you sell your position, but this is your theoretical profit and loss for the whole period.

So go through this carefully, see that you understand the principle, because this kind of mechanics will then be used now in the next tabs when we move into more sophisticated models.

So I suggest we now move to Tab 3.

NIR VULKAN: Did you understand all of the concepts in this video? If you would like to review any of the questions, click on the corresponding button.