In this lecture, I'm going to make a carefully detailed analysis of price in order to determine the precise reasons why the market displayed major and minor reversals. The goal of this is to apprehend every little movement of the market. Keep in mind that this kind of exercise represents only a half of what a real analysis should look like, because as I often say, trading is about maintaining a perfect balance between attention to detail and an overall perspective of the market, which is not an easy task. It's very easy to get caught in minor details believing they will represent major changes because sometimes they do. However, that's not the norm. You cannot expect that every single detail will spark a large event.

We first begin the analysis with the detection of a dynamic frequency breakout from a downward to an upward price vector. I want to call your attention to the level of smoothness in the transition. That's one of the important aspects of validating the dynamic frequency breakouts because when we have a rough and chaotic collection of bars, these breakouts tend to work less efficiently because each bar that creates the breakout will rip price apart and create theoretical price entries that are way too far from the origin of the price vector. Needless to say, that's a major problem in dynamic frequency breakouts because we want to maintain a good level of accuracy in the analysis. The higher the accuracy, the smaller your stop and the larger your target, which means you can gain more risking less.

When we have a smooth transition between price vectors like we have here, the dynamic frequency breakouts are much more efficient, reliable and easy to see as well. I would argue that dynamic frequency breakouts work very well in standing flows, running flows and smooth beating flows. We want to avoid this type of technique at all costs when the market is clearly in a Brownian flow. One interesting aspects of this technique is that it's kind of the opposite of the other techniques where we have a number of barriers that will nudge price to a reversal. A dynamic frequency breakout means that price has a green light to move, meaning that it has open space to travel in whatever direction the breakout is pointing.

The breakout of the inward frequency of a price vector will occur after price hits a cluster of barriers for obvious reasons, but that can also occur when price doesn't encounter any barrier as well. That's an important thing to know because you can add this little trade to your arsenal and produce some very interesting trades sometimes if you have the surrounding context to do it of course. In this first chart we have a smooth dynamic frequency breakout. Notice how the down vector has predominantly bearish bars and it seems to form a smooth arc transitioning to an up vector. We can also see that the current bullish bar, which is a fractal bar, is breaking the inward frequency shown by the horizontal black line. That's a clear signal for the beginning of the next up vector.

IMAGE 2

In this second picture we can observe a few details about the nuanced transition between the price vectors. The black polyline I drew represents the tiny flow embedded in the price bars. You can see how at the end of the down vector and into the fractal bar we have a small expanding pivot in there. In that setting, the down leg of the expanding pivot shows sellers advancing their agenda, but the upward leg of the expanding pivot formation created by the fractal bar shows buyers advancing their agenda despite the sellers. That's a clear advantage to the buyers.

This is one of the reasons a fractal bar can be so powerful. Beyond showing a fractal divergence in a lower fractal dimension, a fractal bar will sometimes imply an expanding pivot formation. Notice that the current bar comes back directly to test the upside of the inward frequency line, and after the test, you can clearly see the bullish pressure at the lower

wick of the bar. I also drew an outward frequency line at the high of the chart to show a simple resistance barrier for price. Let's see what price does next.

IMAGE 3

In this picture you can see that the outward frequency line at the high was able to generate a small bump down that translated into a downward vector embedded in the roughness of those two candles up. However, as expected, the outward line was not enough to stop price from going up. This relates to what I said about price hitting barriers that are strong enough to nudge it in the opposite direction. We have two things to consider when we talk about this. The first thing is the implied momentum of price, and the second thing is the strength or robustness of the barrier or cluster of barriers. Logically, the larger the number of barriers, the stronger they are.

In here, since we are talking about an uptrend in the major dimension as we can observe higher highs and higher lows, the upward momentum is strong. If we compare that with the strength of that outward line, which simply shows a point of exhaustion of buyers, and not a solid birthplace of sellers, it's not difficult to see how such a barrier shouldn't pose any challenge to buyers going up. At the top of the chart we have a mirrored image of the beginning of the upward price vector, and once again, a quite smooth dynamic frequency breakout.

Every single bar low in this upward vector is higher than the previous one. That makes a dynamic frequency breakout so much stronger because it's an explicit and violent disruption of a silky-smooth pattern, just like a hammer breaking a smooth piece of glass. This analogy with shattered glass is interesting because we can think about smooth glass as standing and running flows where the movement is clear, and Brownian flows as shattered glass. If you beat smooth glass with a hammer, the difference is obvious. If you hit shattered glass with a hammer, there is no significant break in the pattern. Very simplistic analogy, but it seems to fit well to what I'm trying to say here.

Another point of interest here is the outward frequency line that served as a confirmation of the buyers' power. That line is both an outward frequency line and a support line now, and the market already expects it to be a barrier for the sellers on the way down. Let me call your attention once again to the smoothness of the dynamic frequency breakout. Beyond the bar lows being in a smooth pattern, the bar highs are also in a smooth pattern. The inward frequency along the formation of that vector doesn't retrace even once.

The current bar, despite not being any sort of bar pattern, represents a triple disruption of the pattern we have been seeing so far. It's the first time that a bar creates a lower high, a lower low, and a breakout of the dynamic frequency, so despite this being a small and apparently insignificant bar, the disruption in the pattern is really significant, and once again, we can only say that it is significant because we have the smoothness in the price vector as a point of reference. In a Brownian flow for example, everything is disrupting, so there is no clear counterpoint or point of reference to detect a change in the overall patter of the price vectors. Let's what happens next.

IMAGE 4

In this picture we can see that price starts to fall after the triple breakout mentioned in the last slide, but price immediately encounters the outward frequency and support line roughly in the middle of the last upward vector. Here we have a judgement call to make because we have price hitting a barrier and then creating a smooth dynamic frequency breakout to the upside. The question is: Which market player is stronger? The sellers from the top of the chart or the buyers from the middle of the last vector.

However, if we look at the underlying mathematical structure of this market, we'll see that it conflicts with the new dynamic frequency breakout up. Let's talk about this pitchfork for a moment. Take a look at the perfection of how this fork fits into price action. The BC line of the fork cuts very nicely through the upward price vector, and the two bars near the a-axis of the fork show a perfect validation. Look how precisely the particular angle of the fork catches those two bar wicks.

This pitchfork is telling us a few things. First is that sellers didn't reach the center line yet, which means that they didn't fully exhaust their energy. On the other hand, this could mean the Hagopian's rule of pitchforks where a failure to reach a fork line means price will revert violently to the opposite direction. However, I don't think the Hagopian's rule is valid here because what's causing this bump up in price is the horizontal line that we identified a while back. The sneaky detail in here is that if we draw an inward parallel using the fork angle as a proxy, we'll see that the high of the current candle could be a second chance to enter this market for the downside, and not open space for price to go skyward, so let's advance price a little bit more to see how it responds.

IMAGE 5

In this image we can see how the horizontal line in the middle of the last upward vector acts as a weak barrier that gets violated and tested immediately after price hits the inward parallel, which was a stronger barrier, but also a lot less obvious. After turning a the support line into resistance once again, price continues its way down with no significant barriers until it reaches the major inward frequency line coming out of the major solid low in this chart. We can see price already creating a bump up and violating the dynamic frequency of the current down vector.

This is definitely a change to go long in this market due to its context. However, entering after this bullish candle seems to be a bit imprecise since the candle showed a decent amount of volatility to the upside. Let's study what a secondary entry in this market could look like in a more precise level keeping in mind that precision is a deal breaker in terms of risk management because it allows you to increase your rewards with a lower risk. Let me erase the current chart and update the line work to make things a bit clearer.

IMAGE 6

Take a moment to let this picture sink in. The black upward lines are Newtonian extrapolations of the modified Schiff version of the black for we were using so far in the analysis. You can see that it creates a suggestive place to trigger a long trade if price retraces down a little bit. The red fork with thicker lines is also a modified Schiff one, but taking into account the current price as the potential c-axis. We have nice validation on this fork as you can see its tail catching the frequencies of that bump up in the middle of this last major downward price vector.

The red and the black forks intersect with the inward frequency line that has been tested and proven already. In terms of the counterpoint between the market players, there isn't too much to discuss here because we are in a running flow with smooth transitions between well defined price vectors. That means that one market player is letting the other breath without too much intervention, and that's what creates the predictable oscillating motion of price that most traders like. Let's see what happens next.

IMAGE 7

In this last picture we can see the effects of price retracing back to a strong and well-defined demand area, and how price kindly gives a second opportunity to enter at a more precise point. Observe how price hugs the black line of the Newtonian extrapolation of the

modified Schiff fork, and how it runs out of energy at the upper red fork line. Examples like this show how it is important to maintain an active perception about the little details of price and in the peculiar mechanics of how one major price vector makes the transition to the next significant price vector.

I hope you appreciated the fact that the type of flow the market displays is of paramount importance for the use of certain techniques. As I said in the price action course volume one, we want to avoid the Brownian flows where there are too many barriers affecting price, which makes the movements very unpredictable and dangerous to trade. The classification of flow types may seem like an unnecessary formality to some, but in this example and in other examples of this second volume as well, you can see how this is as visceral and foundational as the techniques and the reading of context.

I'd like to repeat one thing that I said in the volume one, which is the fact that trading has a lot to do with classes of information and pattern detection among different classes of information, meaning that we need to establish all these different ways in which we see price, and then attempt to find a common ground between these classes of information. This intersectional approach to price action really makes all the difference in the end because the analysis becomes a lot richer and refined. This is also what enables us to access these deeper layers of the mathematical underpinnings of price action.

Even though all of this might seem too complex in a first moment, I generally feel that there is a flavor of mathematical elegance and simplicity in how all of these techniques and layers of analysis work. For example, the fact that a pitchfork is able to generate a specific angle with such precise outcomes in the imminent future of the market is a tremendously elegant mathematical idea. This elegance I'm referring to is the fact that there is so much meaning contained in these tools, and yet they are not so difficult to draw. It's amazing to see how a few simple lines can tell you so much about price.

If you think that the market is some sort of condensation of all the information contained in the economy, and that there is a physical reality to this reflection that we can infer based on the recent past of price, you'll see how these things never cease to fascinate. I've been in touch with these ideas for several years now, and it never fails to amaze me how we can do all of these things in a chart with such level of precision. This is some sort of mystery until this point in time, and nobody really can understand why that's the case. We just know it works for whatever reason.

Of course we can do our best to come up with models of how financial markets move, but nobody up to this point came up with a complete chain of causality for the movements, and I sincerely doubt anyone will due to the use of knowledge in society as it was pointed out by the economist Friedrich Hayek. Hayek pointed out that the flow of information in a society is tremendously huge, complicated and capillary. For that reasons, it seems wildly unrealistically to expect any sort of objective description of markets without any nods of potential subjectivity.

However, that's possible in a few specific moments like in the analysis we saw in this example. In Brownian flows I believe this is virtually impossible to achieve. Nevertheless, we can benefit from the moments where the market is indeed very predictable.