

OrderFlows Delta Trading Course

Lesson 3 – Delta Numbers

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When dealing in order flow delta there are different delta numbers you can look at:

Delta – Which is the current delta reading for the bar and when the bar closes is the final delta for the bar.

Max Delta – The most positive delta was in a bar.

Min Delta – The most negative delta was in a bar.

Cumulative Delta – The running delta for the session.

Cumulative Delta / Volume – The cumulative delta divided by the total volume for the session up to that point in time.

When looking at delta the type of chart you look at will give you very different delta readings.

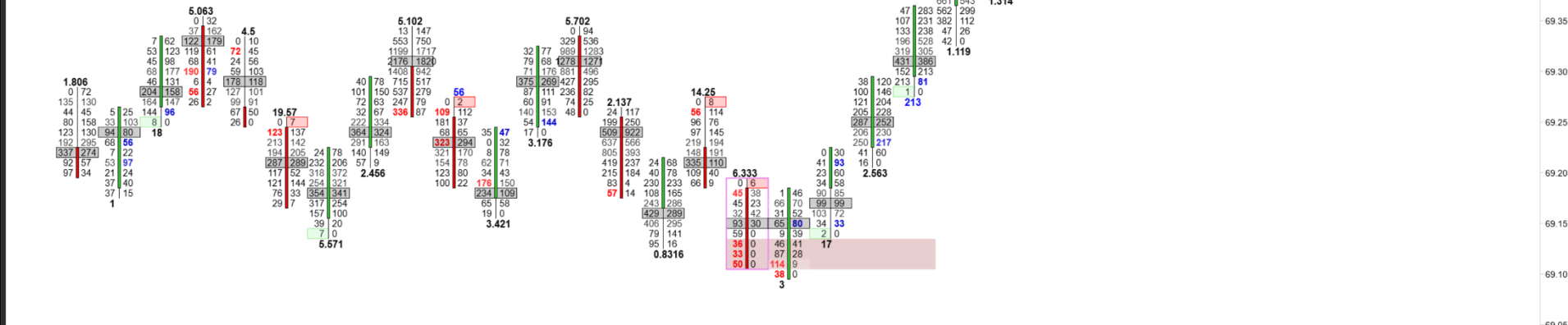
Minute based chart versus range based chart.

Range based charts give you clearer reading on price movement than time based charts because a new bar will only form if price is moving.

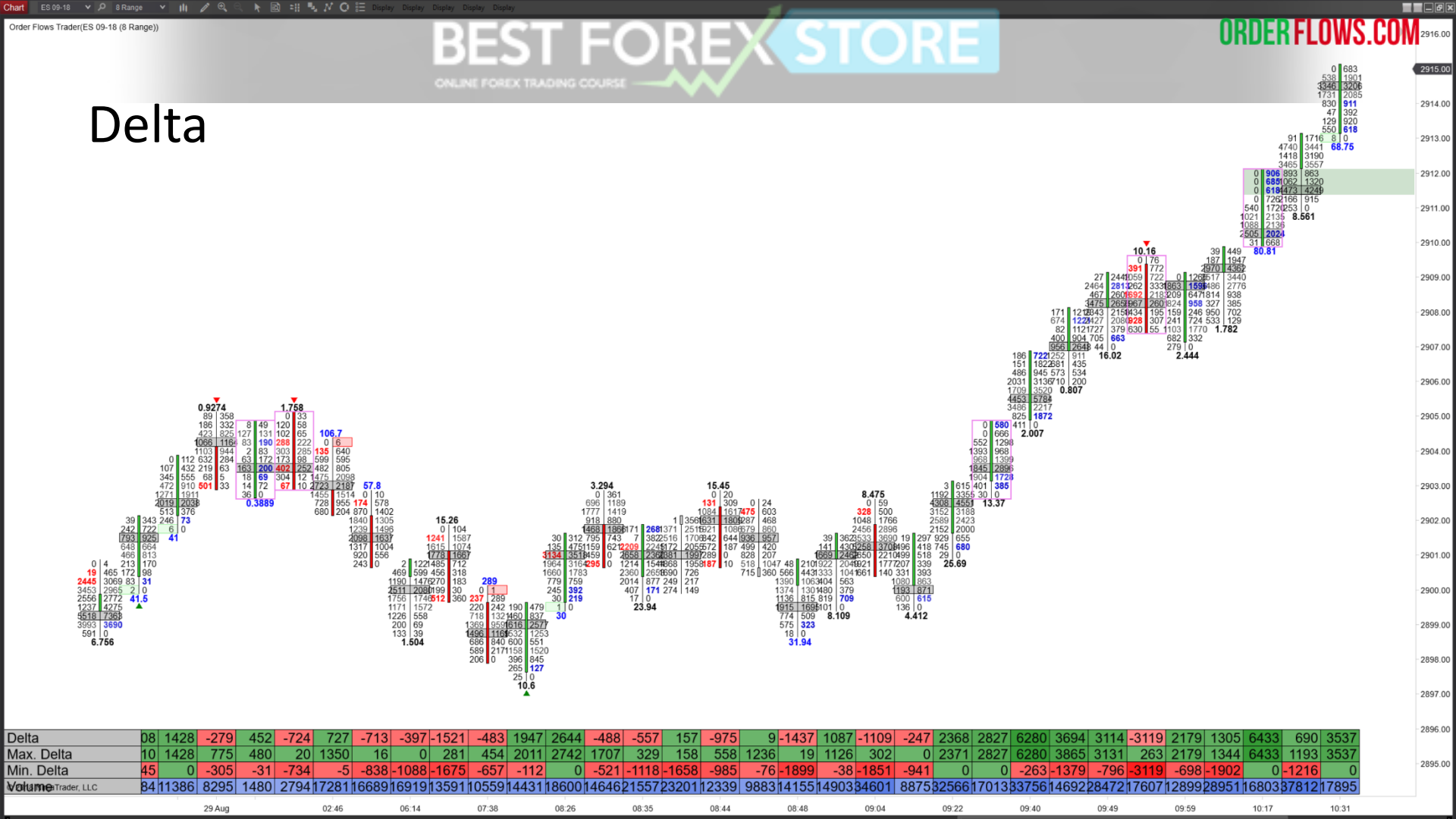
Delta – is the difference between aggressive buying and aggressive selling in a bar. While the bar is forming, the delta number is constantly changing as trading is occurring. The delta will go positive or negative. Once the bar is closed the delta will not change.

Delta – You have to remember that delta in a bar, while the bar is forming, the delta value can change from a strong positive to a strong negative and vice versa. You need to be careful taking a trade early while a bar is forming based on your thoughts of delta because it can change in an instance.

Delta



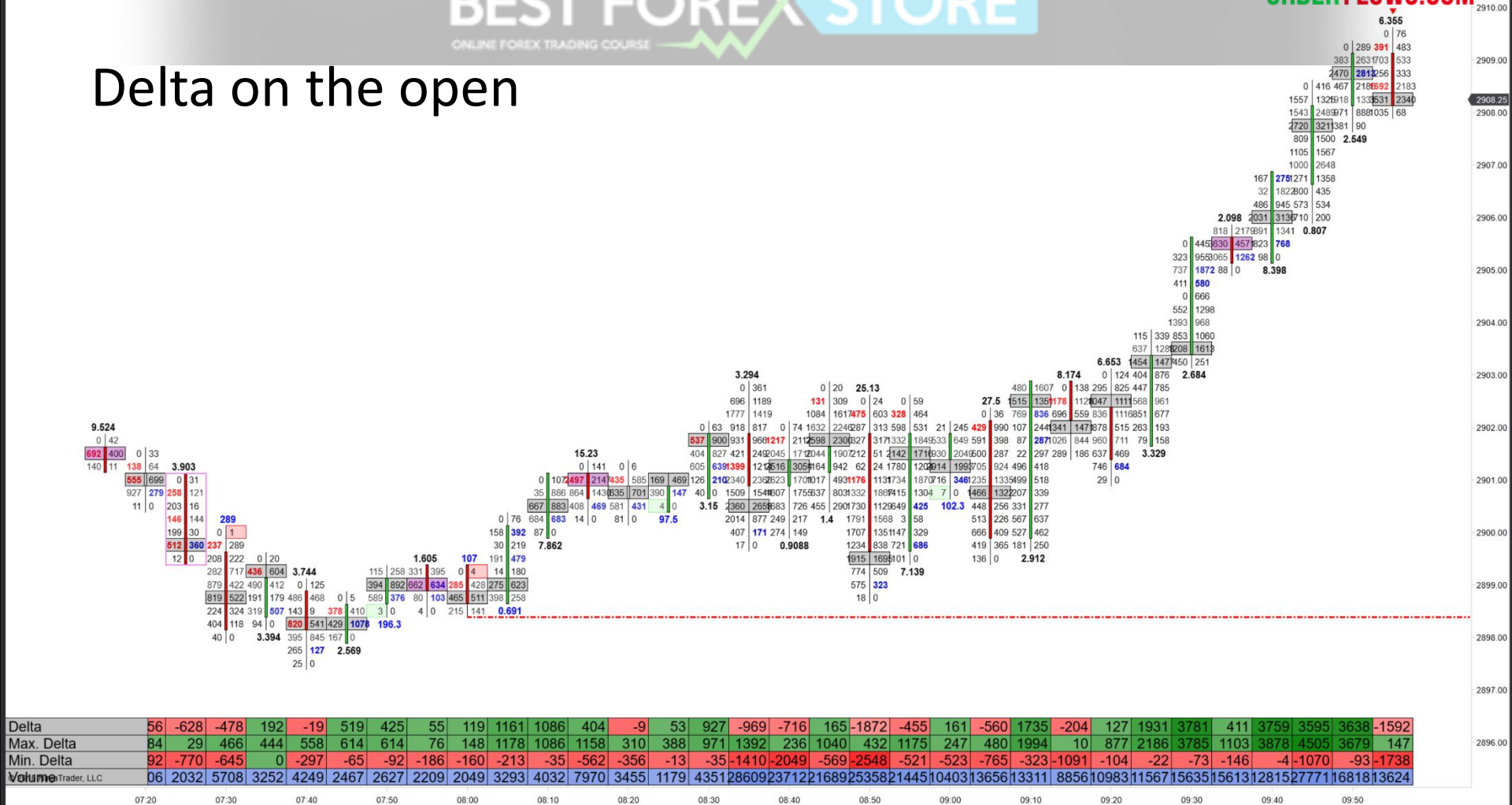
Delta	253	-37	-78	-144	-10	18	-846	-519	-45	174	-180	-261	-83	-239	-254	-92	104	193	666	103	384	654	1157	-23	461	-21	-270	-389	-238	72	272	-110
Max. Delta	260	158	78	10	58	81	84	0	15	234	188	186	26	77	0	0	104	211	682	233	401	672	1157	353	478	210	69	0	119	143	279	151
Min. Delta	-68	-39	-89	-204	-103	-116	-855	-525	-165	0	-180	-275	-120	-239	-254	-197	-46	-2	-35	-167	-18	-20	0	-380	-4	-231	-271	-391	-243	-191	0	-119
Volume	731	1211	1226	2176	3394	2656	13522	2239	1221	2004	8344	5635	3225	2013	532	822	956	2721	3864	6283	2370	5228	3061	6185	2051	5295	4912	1879	3398	9136	3006	1616



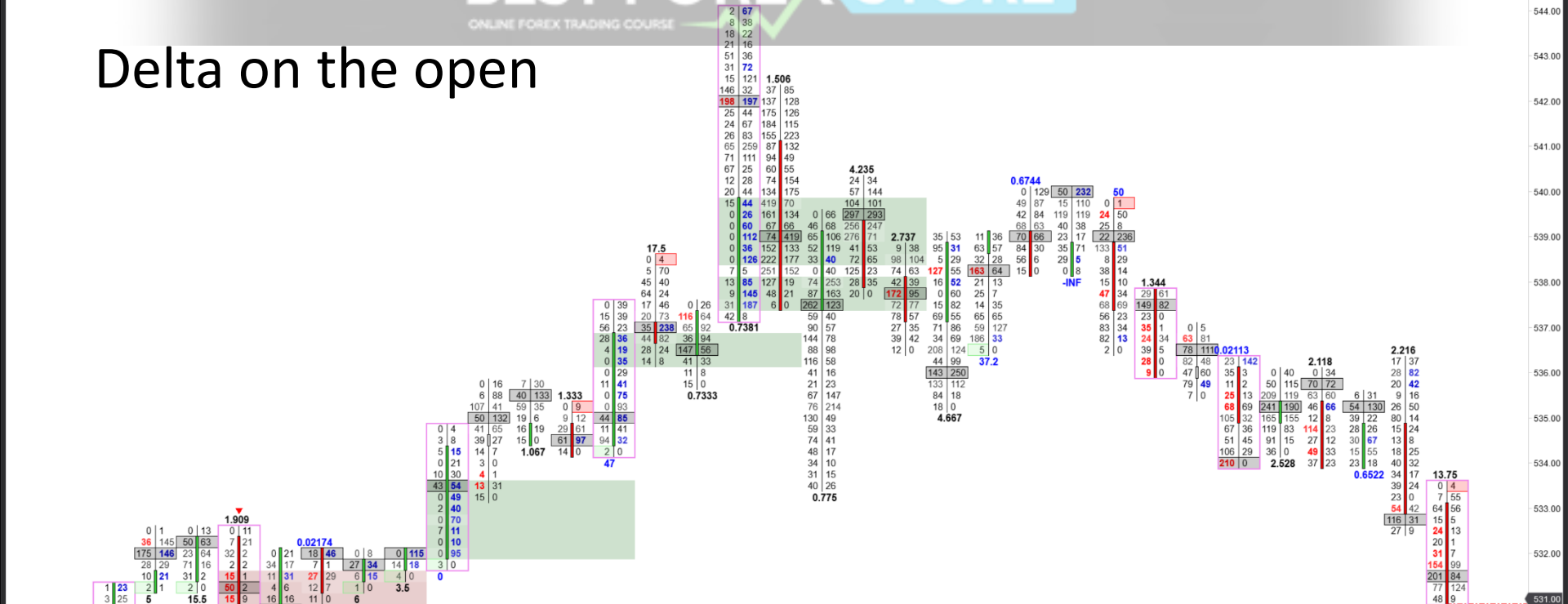
Delta is related to volume. When an underlying cash market opens and volume picks up the delta numbers overall will generally be bigger.

Opening and closing times may exhibit larger than average delta numbers due to the larger than average volume at the time period.

Delta on the open



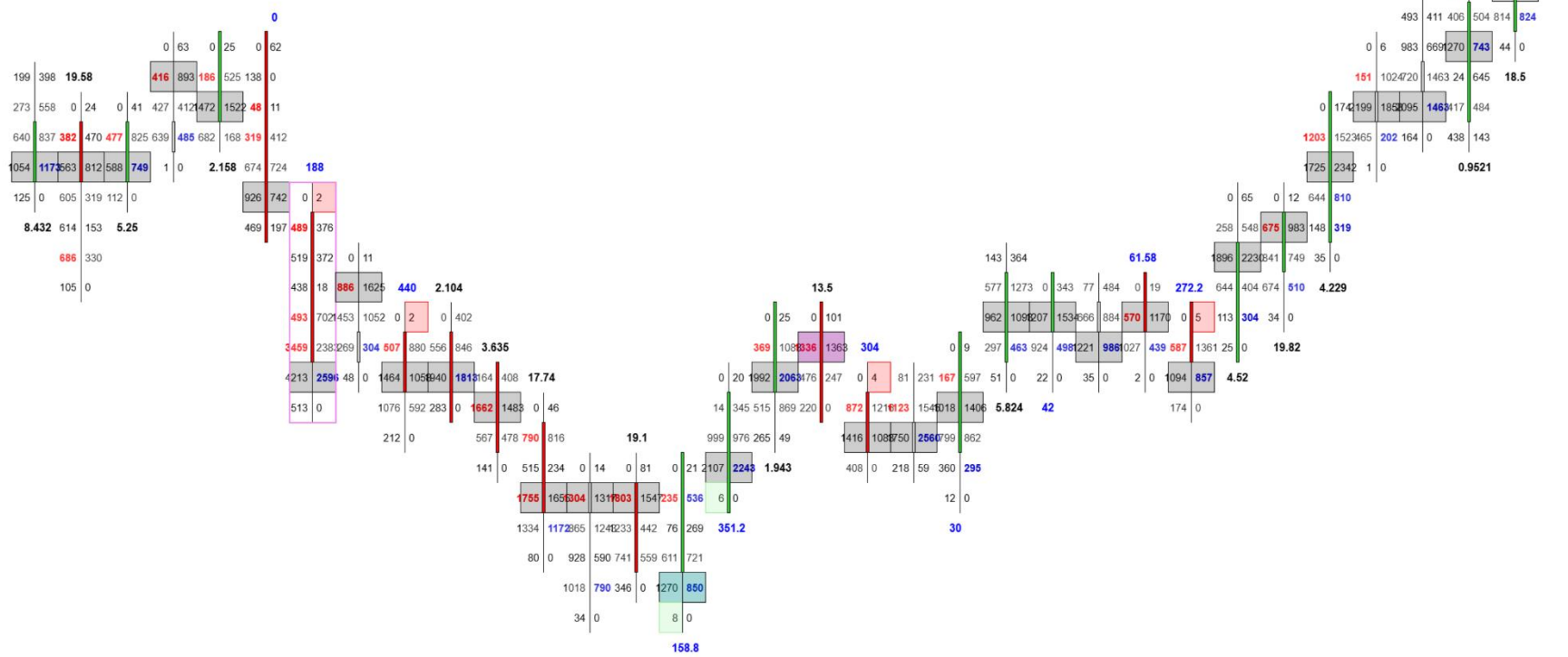
Delta on the open



Delta	92	-19	-94	108	8	23	115	334	116	67	66	322	337	-58	1179	-231	163	-234	-73	78	-179	81	289	-31	-153	-2	-330	-194	-87	154	-106	-184
Max. Delta	217	3	27	114	32	34	115	340	192	125	101	377	337	70	1662	158	170	92	73	211	18	215	421	221	26	73	105	135	140	188	166	65
Min. Delta	-2	-78	-97	-3	-5	0	0	0	0	-11	-8	-54	0	-75	-2	-437	-406	-240	-183	-312	-241	-13	0	-71	-153	-40	-404	-243	-112	-14	-146	-315
Volume	594	335	190	284	158	91	151	480	700	379	292	852	881	804	3013	5259	3637	2366	1173	2272	1109	849	911	1175	519	710	1072	1628	749	544	1012	1098

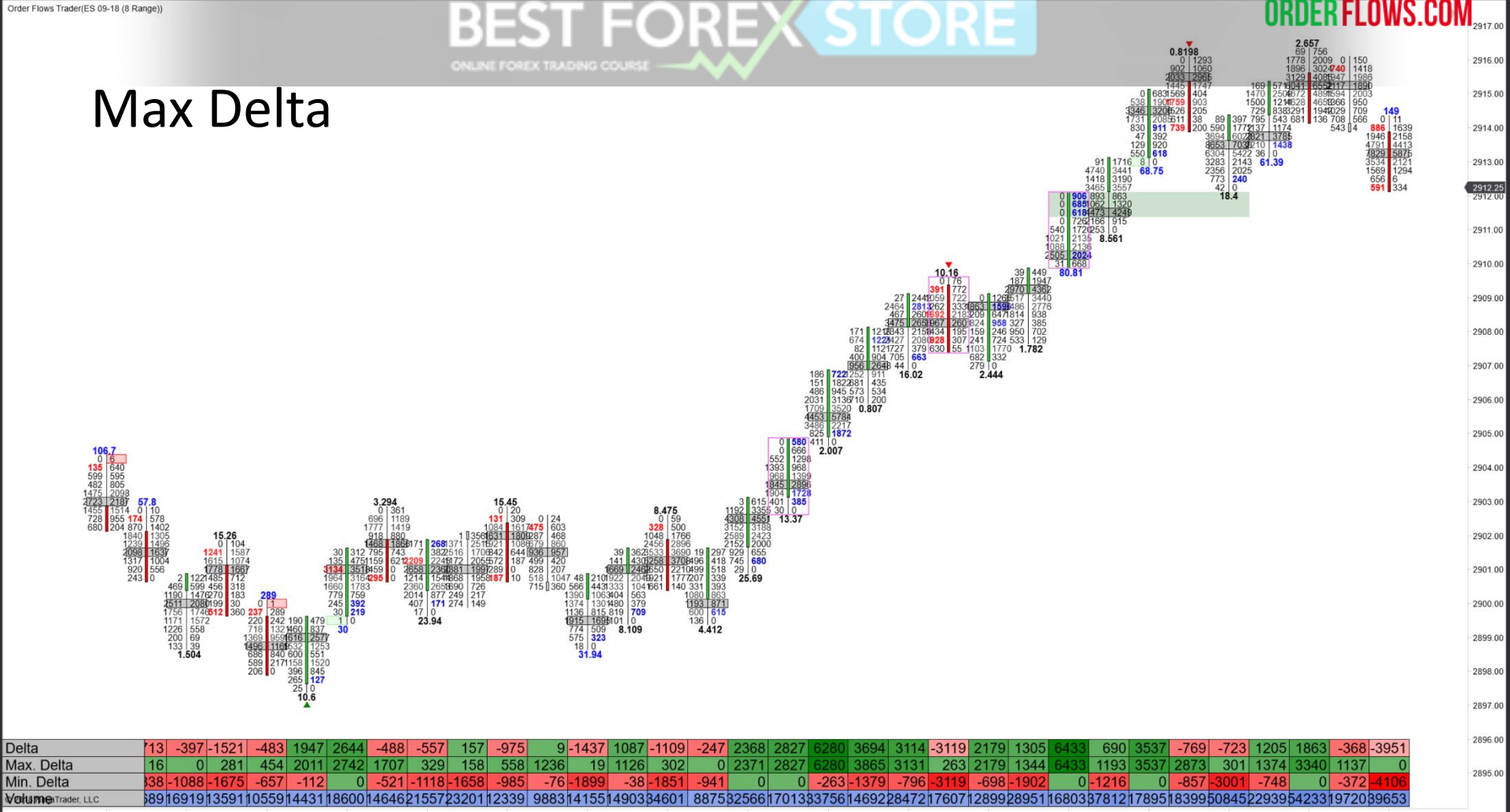
Max Delta is the strongest delta was on the positive side. This means how strong aggressive buying was at one point in the bar. A final delta value that is close to the max delta value indicates aggressive buyers dominated the bar.

Max Delta



Delta	47	438	370	-100	-426	-3675	336	-727	282	-165	-551	-195	-1494	197	458	948	-321	-393	1223	813	1163	222	355	29	368	615	30	1413	274	371	193	1692
Max. Delta	90	654	657	181	61	0	891	0	790	243	74	87	2	222	694	1138	359	69	1681	895	1411	366	471	80	395	868	236	1533	434	1499	685	1693
Min. Delta	43	-54	-1	-544	-635	-4106	-26	-1459	-120	-328	-944	-963	-1495	-329	-2	-281	-321	-458	-16	-327	-25	-241	-426	-537	-298	-22	-623	0	-253	-405	-138	-3
Volume	63	2792	3336	4580	4722	16573	5648	5791	5840	4903	8397	8103	6752	4597	6710	7230	3743	4999	7567	5525	5223	4528	4353	3227	4078	6487	4478	8923	5906	10919	5899	7762

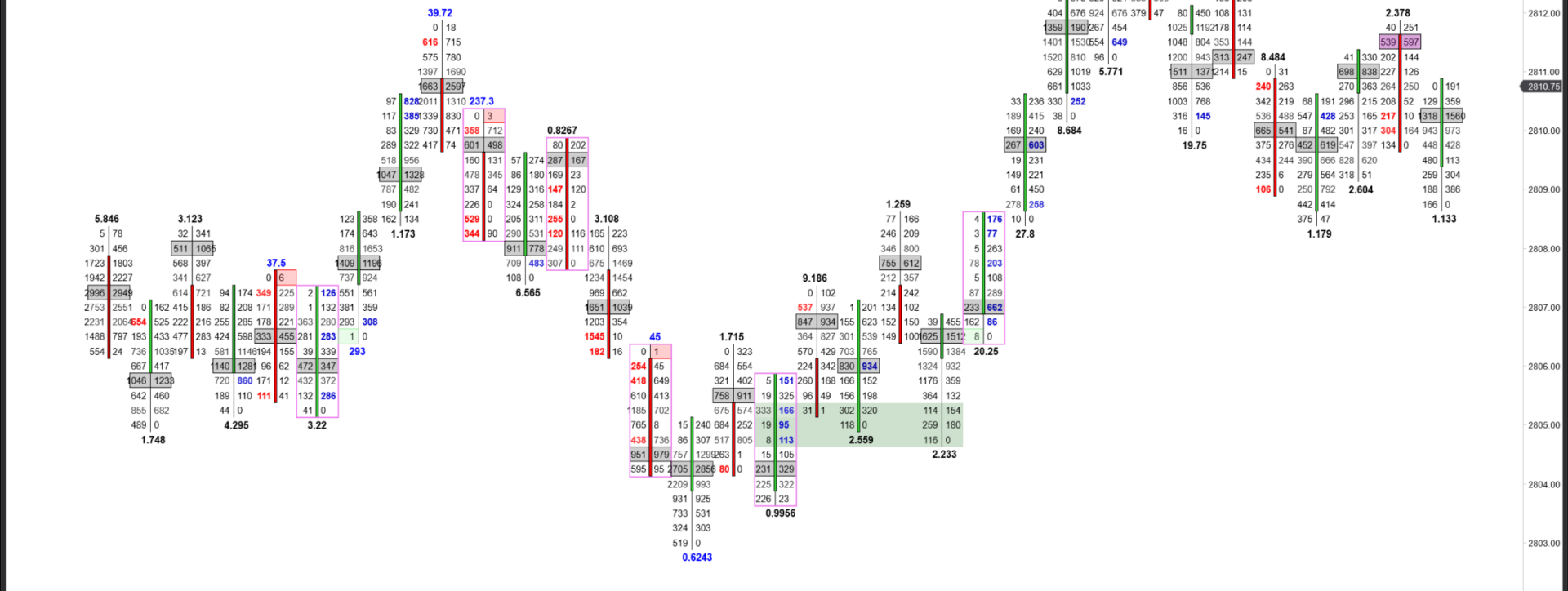
Max Delta



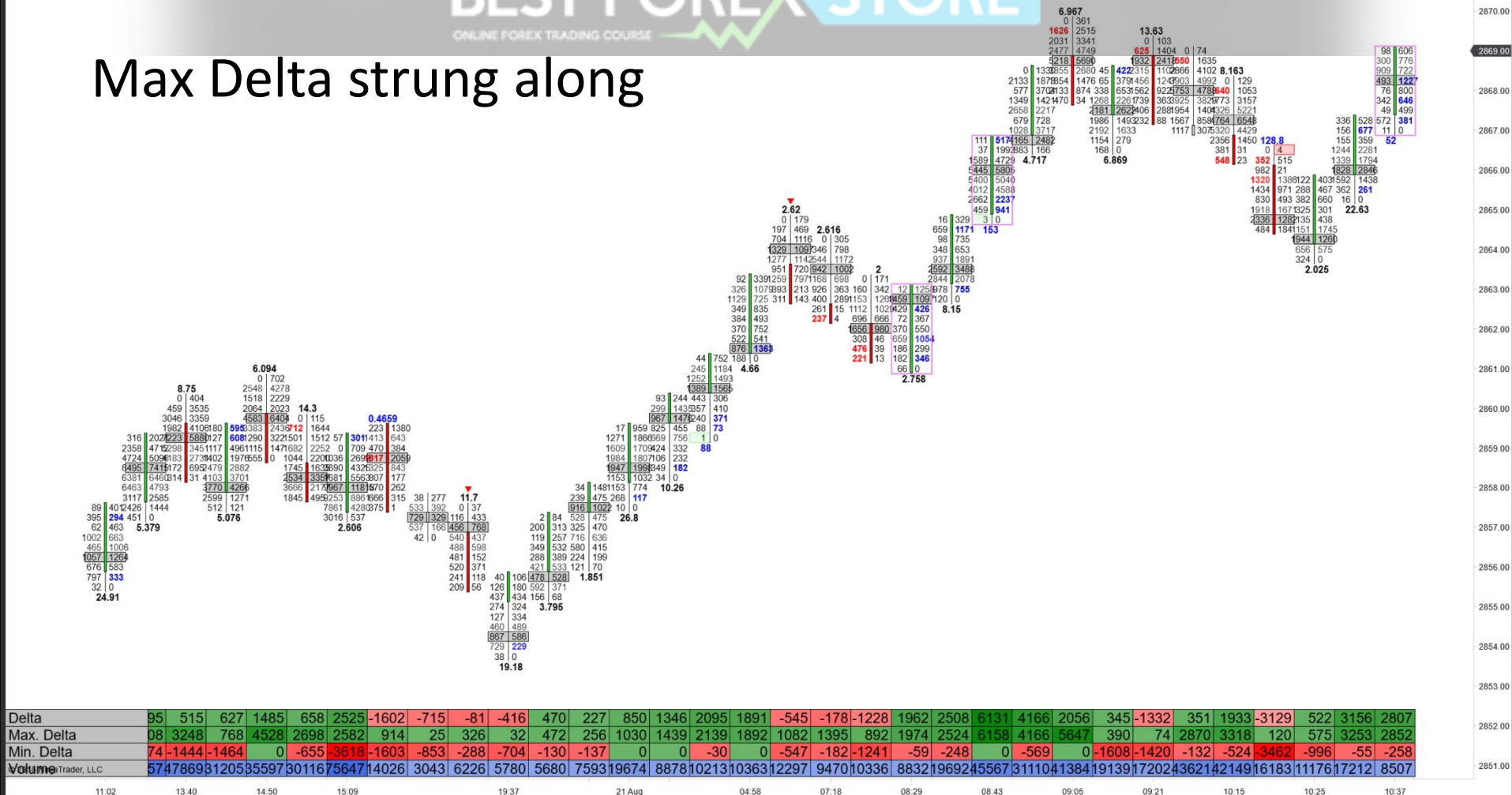
Delta	13	-397	-1521	-483	1947	2644	-488	-557	157	-975	9	-1437	1087	-1109	-247	2368	2827	6280	3694	3114	-3119	2179	1305	6433	690	3537	-769	-723	1205	1863	-368	-3951	2896.00	
Max. Delta	16	0	281	454	2011	2742	1707	329	158	558	1236	19	1126	302	0	2371	2827	6280	3865	3131	263	2179	1344	6433	1193	3537	2873	301	1374	3340	1137	0	2895.00	
Min. Delta	38	-1088	-1675	-657	-112	0	-521	-1118	-1658	-985	-76	-1899	-38	-1851	-941	0	0	-263	-1379	-796	-3119	-698	-1902	0	-1216	0	-857	-3001	-748	0	-372	-4106		
Volume	89	169	19	1359	10559	14431	18600	14646	21557	23201	2339	9883	14155	14903	34601	8875	82566	17013	33756	14692	28472	17607	12899	28951	16803	37812	17895	18399	50845	22939	54233	19720	89653	
Volume by Trader, LLC																																		

What I like about Max Delta is when, over a few bars, the Delta finishes near the Max Delta and the Min Delta is relatively small, it indicates strong aggressive buying and the strength often builds on itself and the markets tend to rise.

Max Delta strung along



Delta	35	472	1133	-137	402	1517	1715	-263	-1190	312	-1057	-2314	-1588	-825	-160	548	860	1000	453	-1499	1279	1479	1260	2002	-164	-846	-363	-865	1313	-256	-541	383
Max. Delta	0	1227	1187	200	404	1620	1742	1306	246	321	43	712	0	0	871	594	1336	1001	998	147	1283	1512	1363	2002	1523	0	386	0	1580	11	333	383
Min. Delta	80	0	-171	-268	-35	-285	-48	-370	-1280	-444	-1057	-2330	-2171	-1974	-255	-200	0	-111	0	-2011	0	0	-576	-216	-372	-1732	-378	-865	-125	-1192	-541	-777
Volume	29	7226	8191	3069	3928	10487	8295	17233	4876	5950	2539	14154	8844	15733	7804	2710	6718	6464	5023	11715	2449	3829	13944	11018	8530	13264	2955	5001	7093	6848	3729	8245



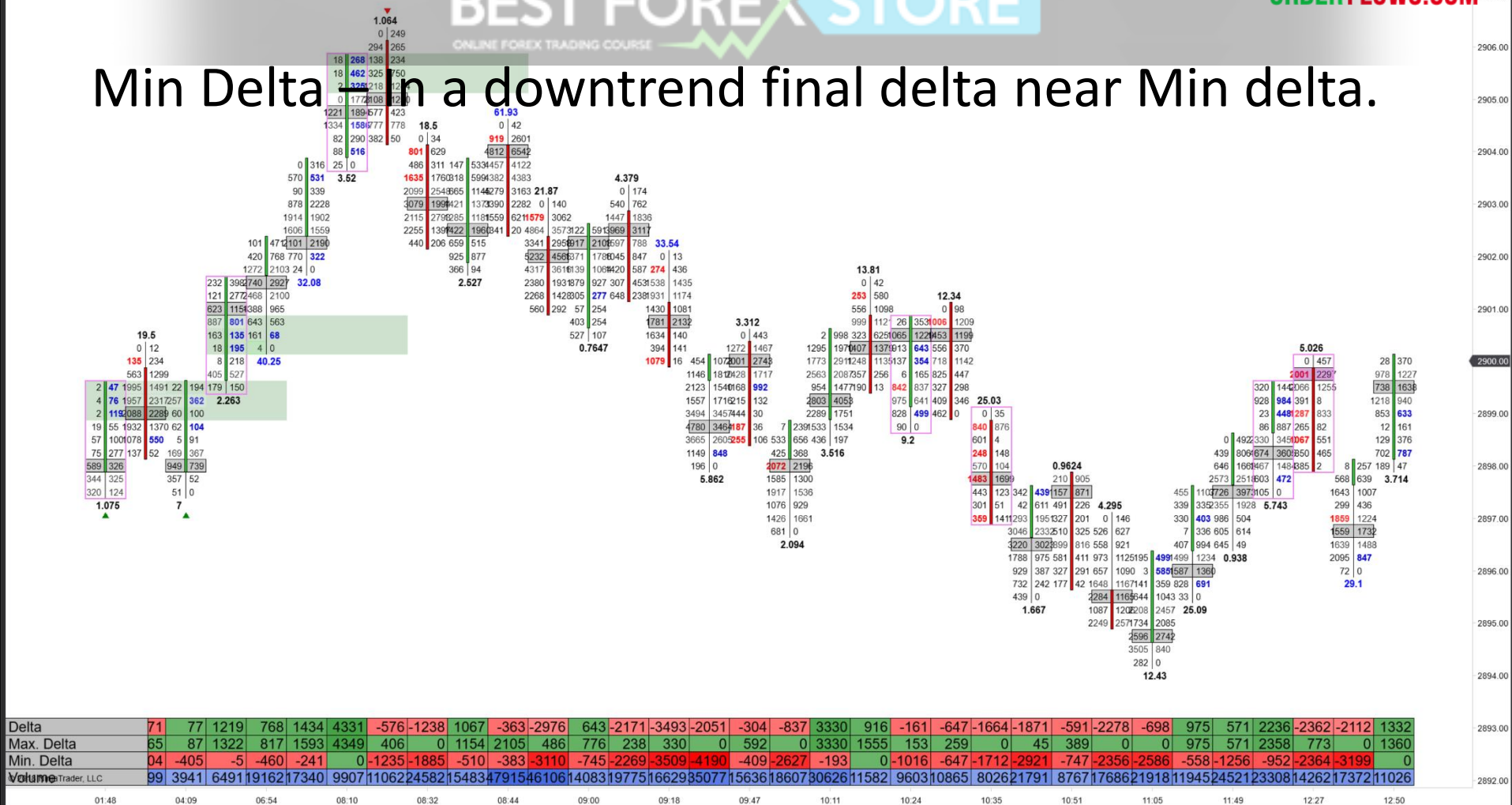
Min Delta is the strongest delta was in the negative side of a bar. Meaning how strong aggressive sellers were in the bar. A close near the min delta number indicates aggressive sellers dominated the bar.

BEST FOREX STORE



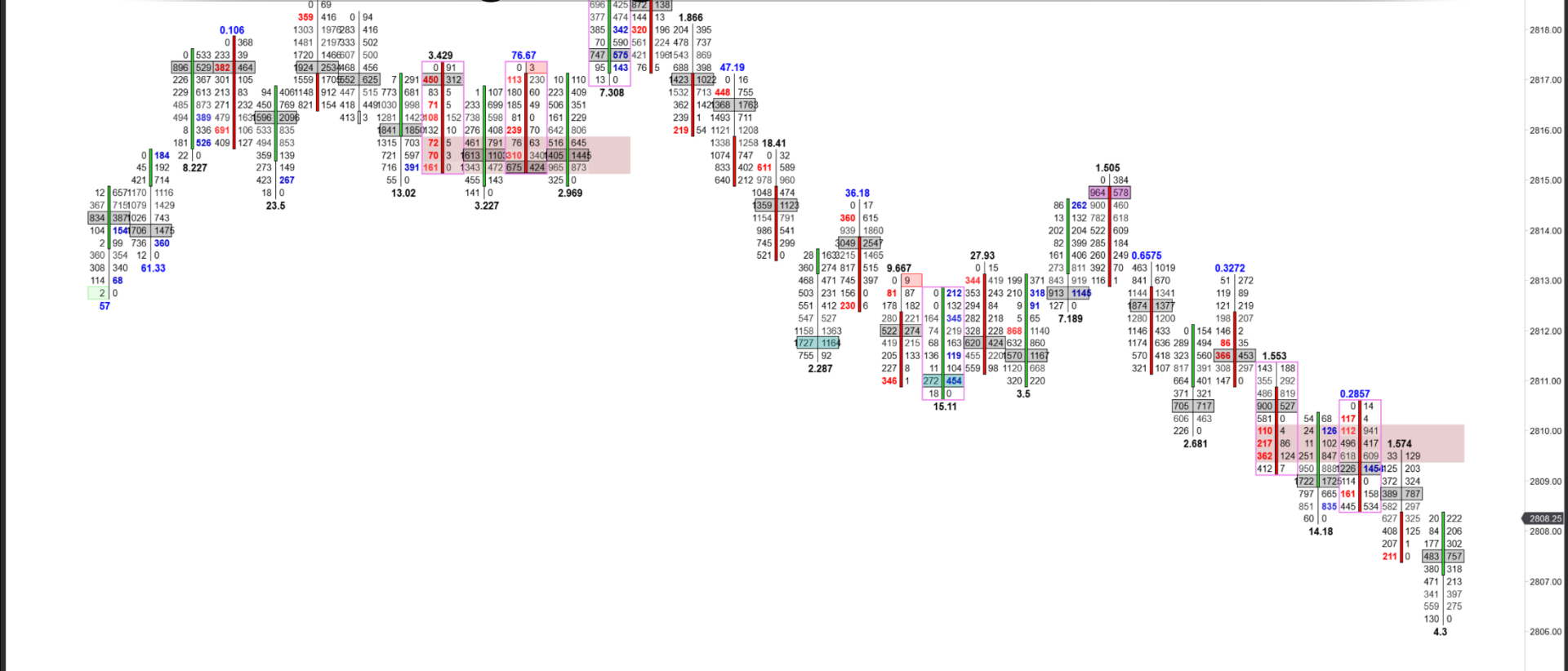
BEST FOREX STORE

Min Delta in a downtrend final delta near Min delta.

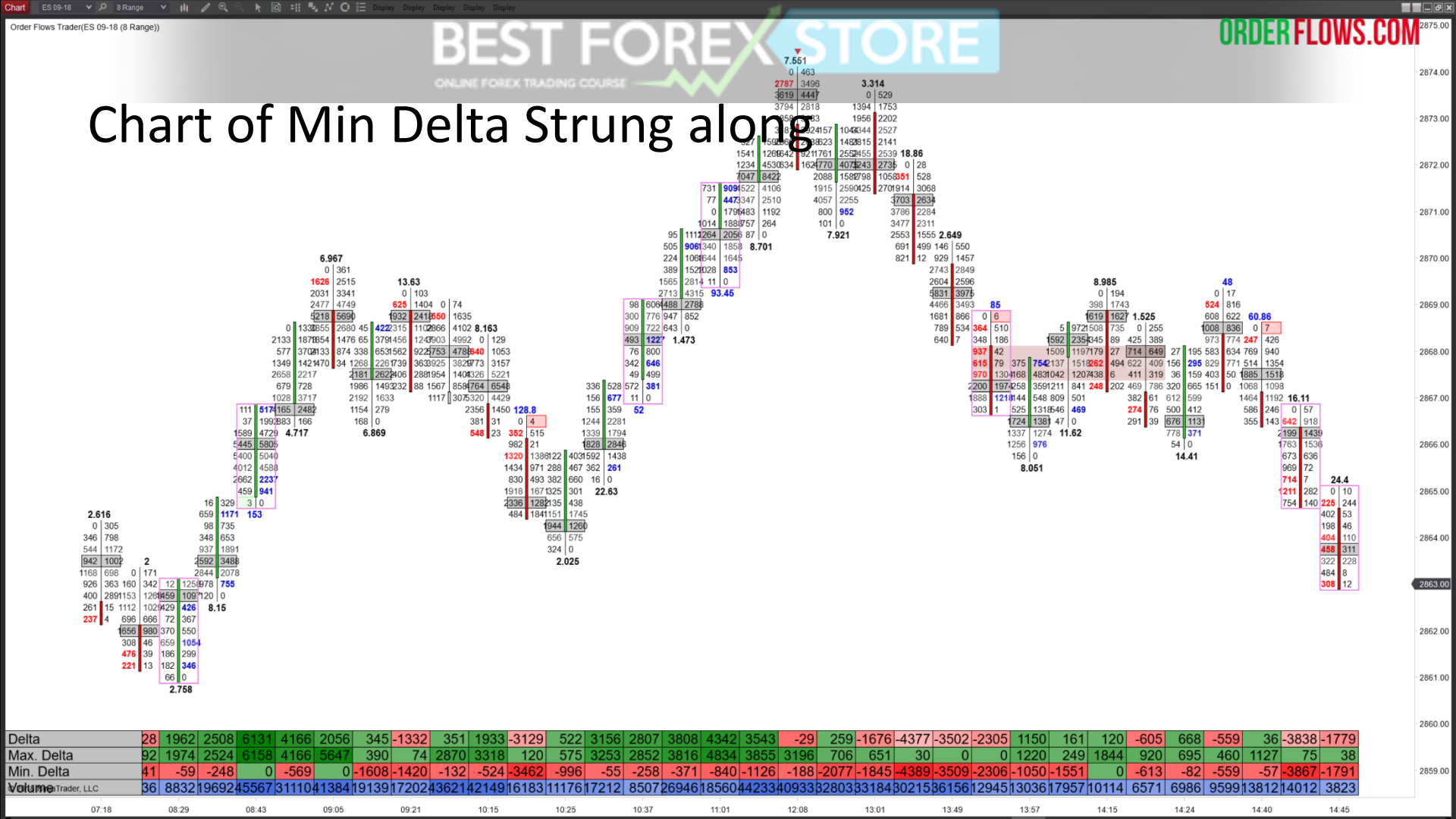


What I like about Min Delta is when you string together a few bars where the bar Delta finishes near the Min Delta number it is a great potential short opportunity.

Min Delta Strung along



Delta	18	1625	-1292	1274	1114	39	-805	-564	-940	-620	115	848	-1764	-2357	-1243	-2593	-1400	-2089	-1128	1005	-1286	-33	1578	-1068	-1612	-500	32	-1519	536	842	-763	45
Max. Delta	31	1892	352	1356	2437	862	48	85	206	225	624	1133	73	470	745	0	0	167	189	1005	112	100	1664	186	219	194	487	249	563	967	328	241
Min. Delta	55	0	-1404	-520	-333	-33	-1365	-564	-1635	-836	-410	0	-1769	-2411	-1307	-2593	-2443	-2095	-1129	-16	-1296	-1330	-163	-1089	-1617	-1262	-58	-1526	-975	-828	-763	-871
Volume	08	6707	4666	9754	21744	7081	14673	1730	9582	3098	9621	6112	4196	11019	15387	12211	10794	16933	3388	2491	5184	9833	6978	7374	16014	7502	3116	5613	9976	7420	5145	5335



There are different ways to analyze the max and min delta that give a trade an insight into the market not visible anywhere else.

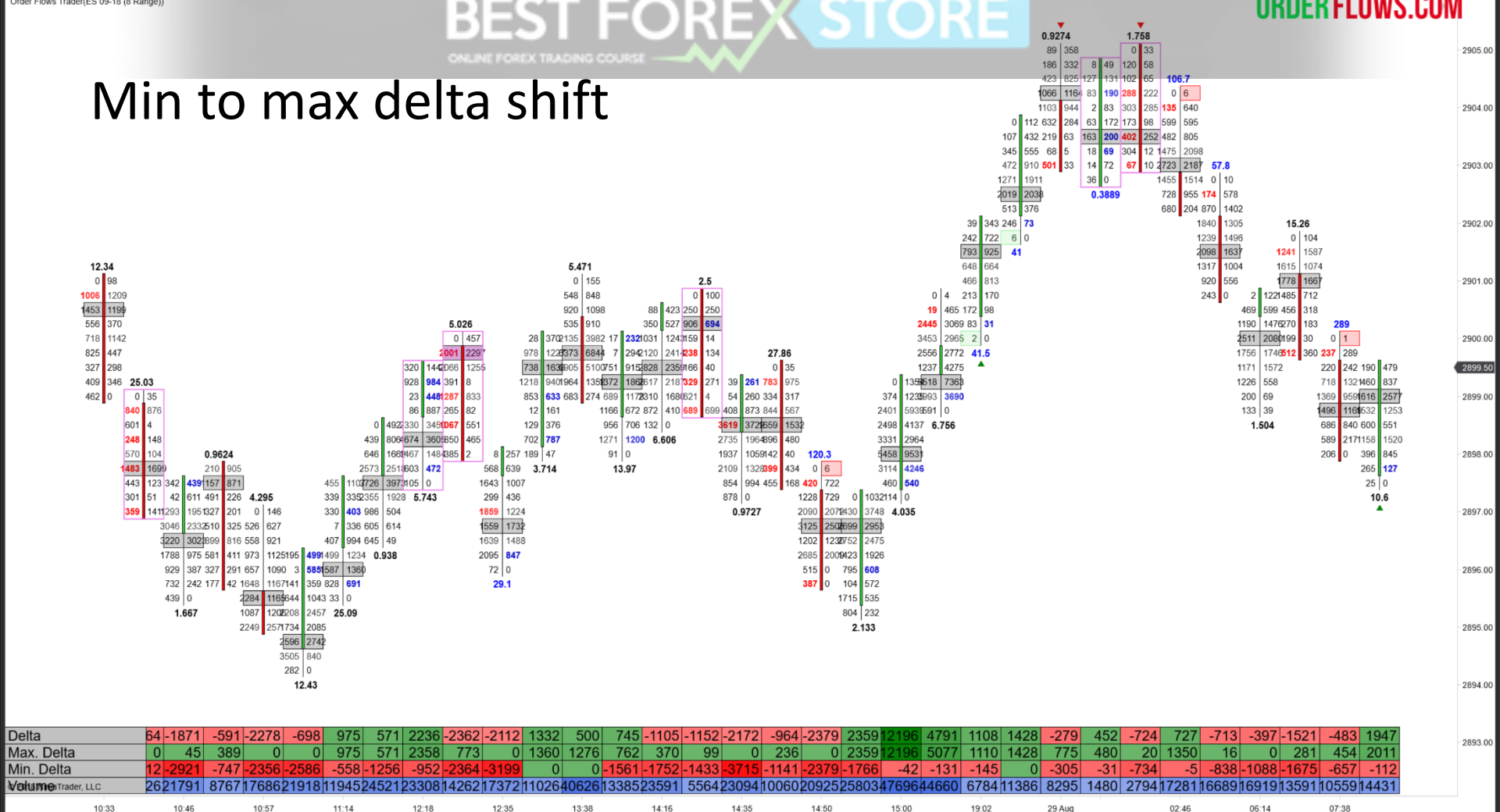
It can help you to see shifts in supply and demand.

How can you see shifts in supply and demand?

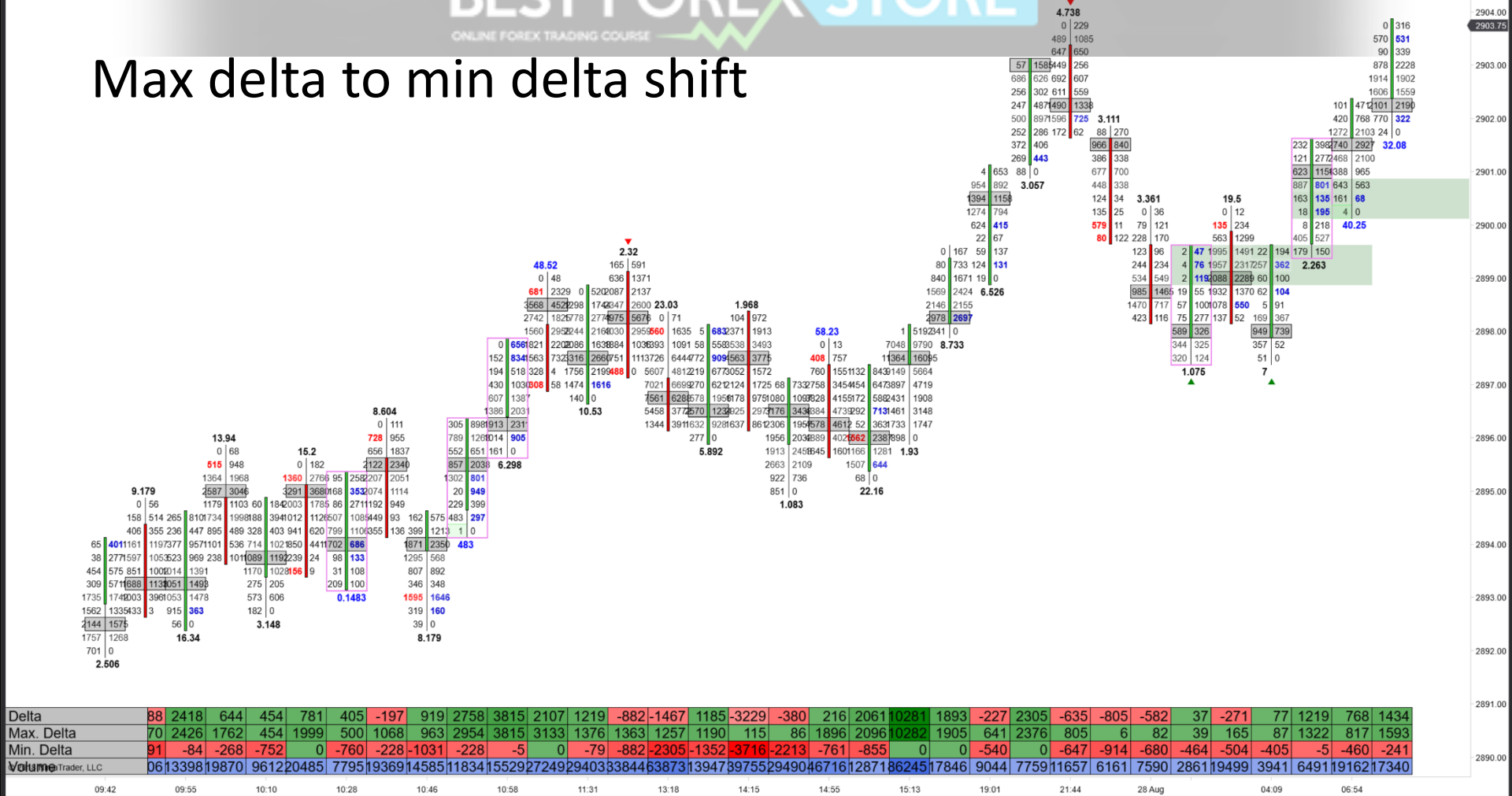
There will be bars that have a large max delta value and a large min delta value, then closes near one or the other.

For example, a market has a min delta of -1766, a max delta of 2359 and a delta of 2359. Which way do you think the market is going to go? Higher or lower?
Higher.

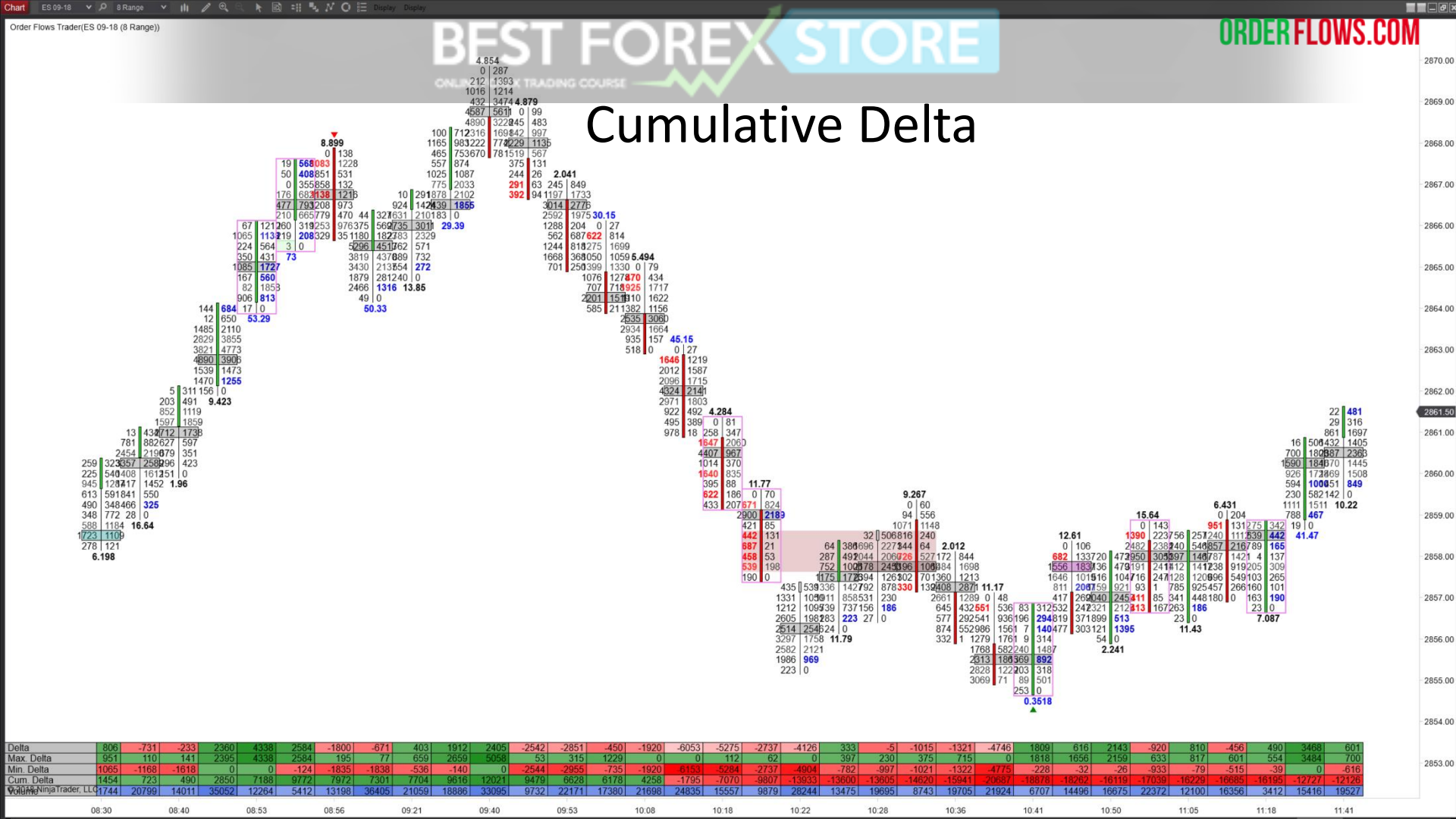
Min to max delta shift

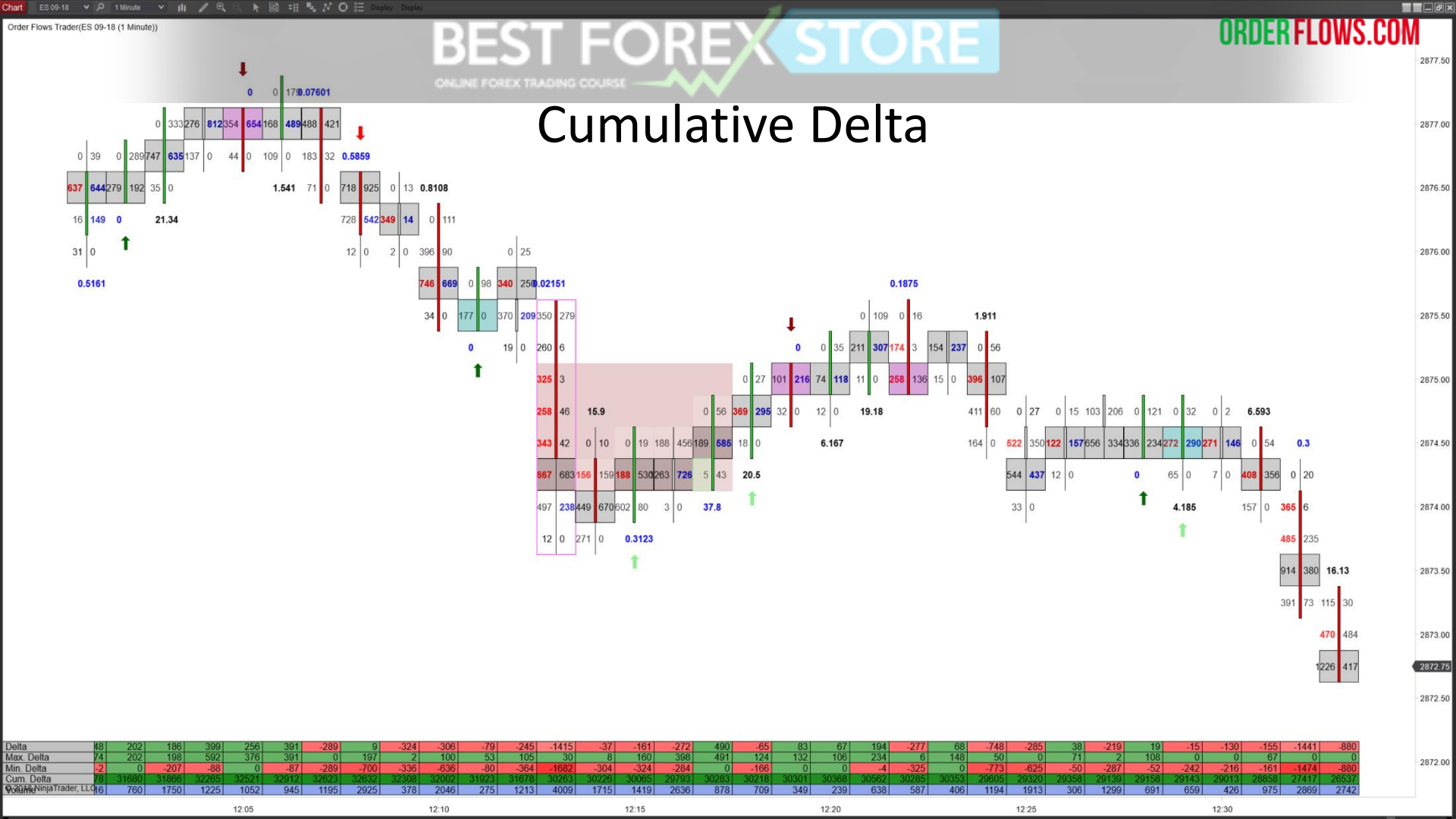


Max delta to min delta shift



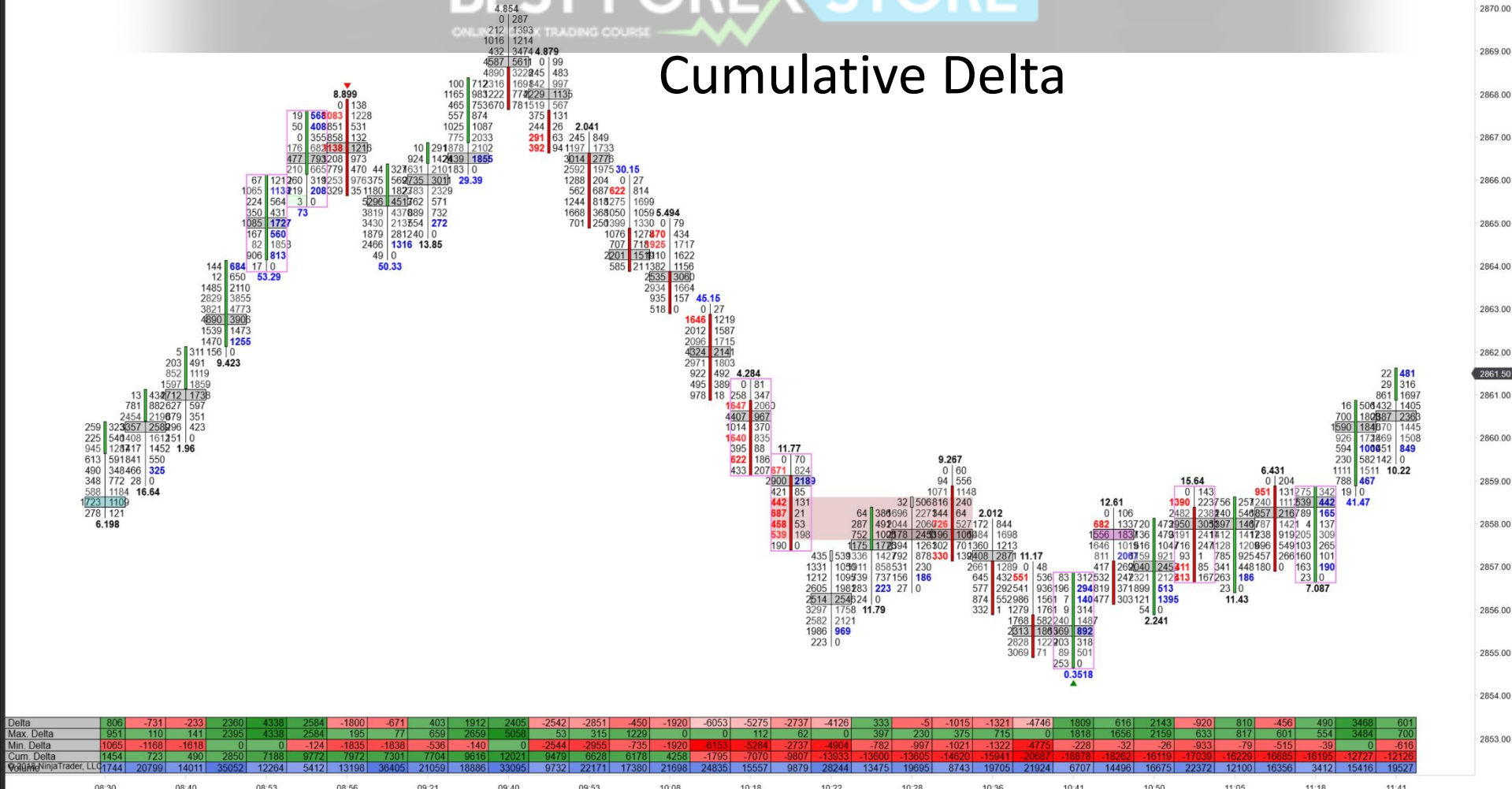
Cumulative Delta is the running delta for the entire trading session. Take the delta for each bar and add or subtract it from the total.





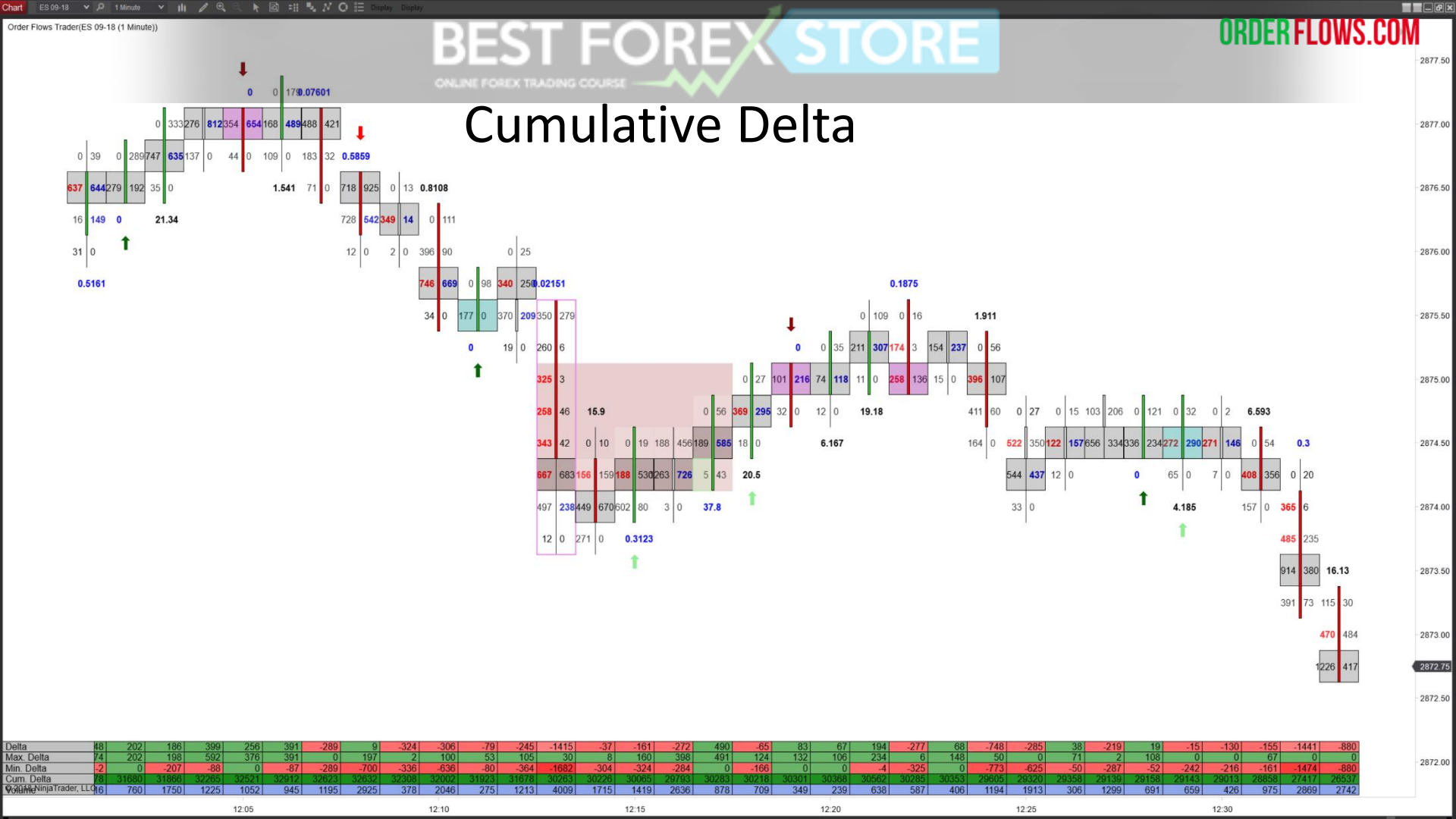
Personally I think cumulative delta can be a lagging indicator because for a market spend hours putting together bars with positive delta to give you a positive cumulative delta, that it will take many bars of negative delta to turn the cumulative delta negative.

Cumulative Delta



Cumulative Delta

There are some traders who say “trade in the direction of the cumulative delta.” I find that incredibly bad advice because for example, if you are trading a 1 minute ES chart and the cumulative delta is positive 32623 and you get a short signal you won’t take the short trade and you could miss a lot of otherwise great trades. On a minute based chart where you only get bar deltas in the hundred, it will take a lot of negative delta bars to turn the cumulative delta negative.



Those are the issues I have with cumulative delta. That is not to say it is not a useful tool. Instead I just want to show you the pitfalls of cumulative delta.

Cumulative Delta / Volume is the cumulative delta divided by the total volume for the session at that point in time.

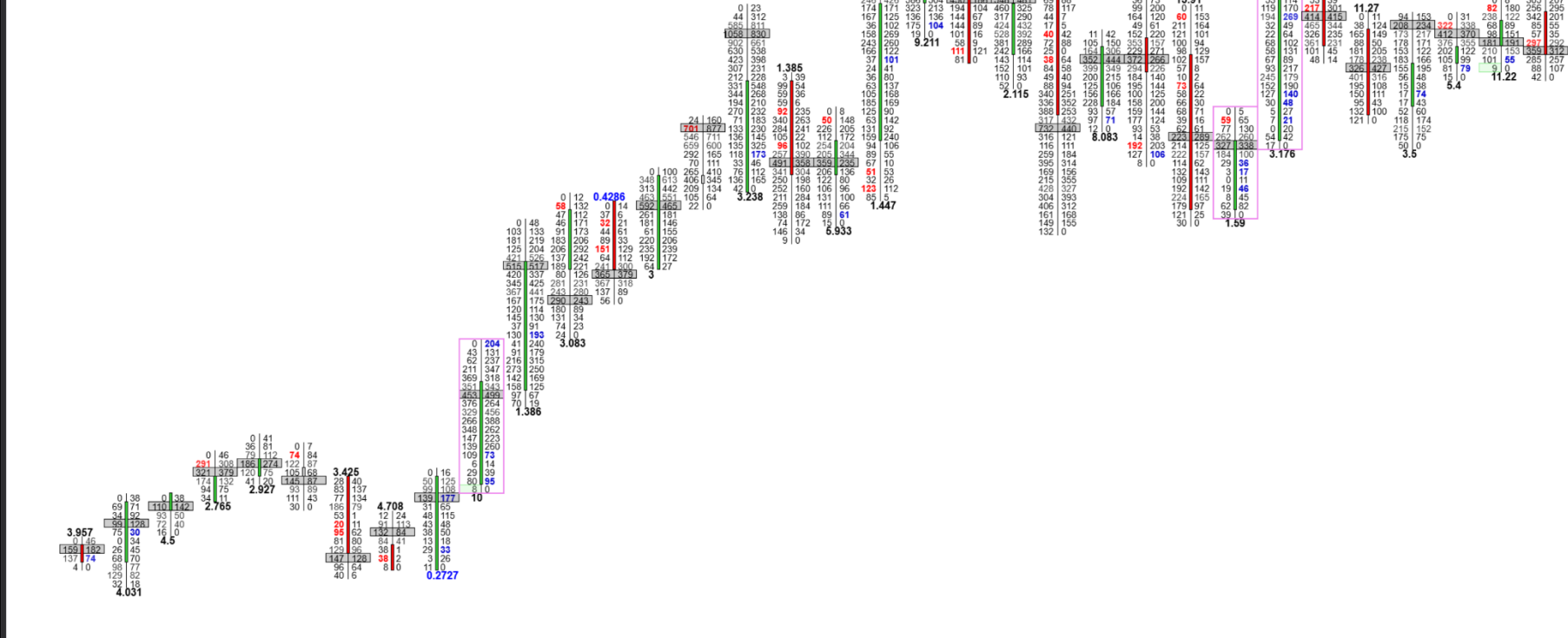
When the ratio is close to zero it is indicative of a small cumulative delta.

The thing is total volume will always be growing while cumulative delta can expand or contract.

What I look for is areas where the cumulative delta/volume is close to 0.000 and then look to trade in the direction of the strong delta that follows.

It is kind of an area of absorption and consolidation, traders are nearly equal for the session and I am just waiting to see the direction the market goes.

Cumulative Delta / Volume



Delta	55	-21	37	141	-215	-197	-138	277	827	753	327	-121	367	278	489	-397	-131	881	596	-245	-486	-788	148	-182	-486	66	870	-422	-188	63	-119	-38	31
Max. Delta	77	28	166	206	0	92	28	286	990	1139	334	7	526	813	1368	31	162	1034	750	172	135	102	160	298	148	215	930	10	183	201	117	52	488
Min. Delta	-135	-63	-16	0	-217	-232	-139	-10	-5	-4	-338	-287	-15	-59	-22	-647	-265	-210	-336	-252	-544	-832	-96	-239	-492	-43	-29	-445	-205	-179	-131	-113	-12
Cum. Delta	897	1876	1913	2054	1839	1642	1504	1781	2608	3361	3688	3567	3934	4212	4701	4304	4173	5054	5650	5405	4919	4131	4279	4097	3611	3677	4547	4125	3937	4000	3881	3843	3874
Cum. Delta / Volume	0.15	0.015	0.015	0.016	0.014	0.013	0.011	0.013	0.019	0.023	0.024	0.023	0.024	0.025	0.026	0.023	0.022	0.025	0.026	0.025	0.022	0.017	0.018	0.017	0.014	0.014	0.018	0.016	0.015	0.015	0.014	0.014	0.014
Volume	315	561	1865	1065	1145	1873	668	1285	7479	9081	4847	3045	6227	6876	12849	6733	3841	8013	12804	4131	6928	10746	4032	6132	5284	2204	4858	4796	3952	3781	2907	1936	4923
Volume Delta	1059	124620	126485	127550	128695	130568	131236	132521	140000	149081	153928	156973	163200	170076	182925	189658	193499	201512	214316	218447	225375	236121	240153	246285	251569	253773	258631	263427	267379	271180	274007	276003	280926

I also look for areas where it is quite high (in an absolute sense). A ratio above 0.050 is what I consider high.

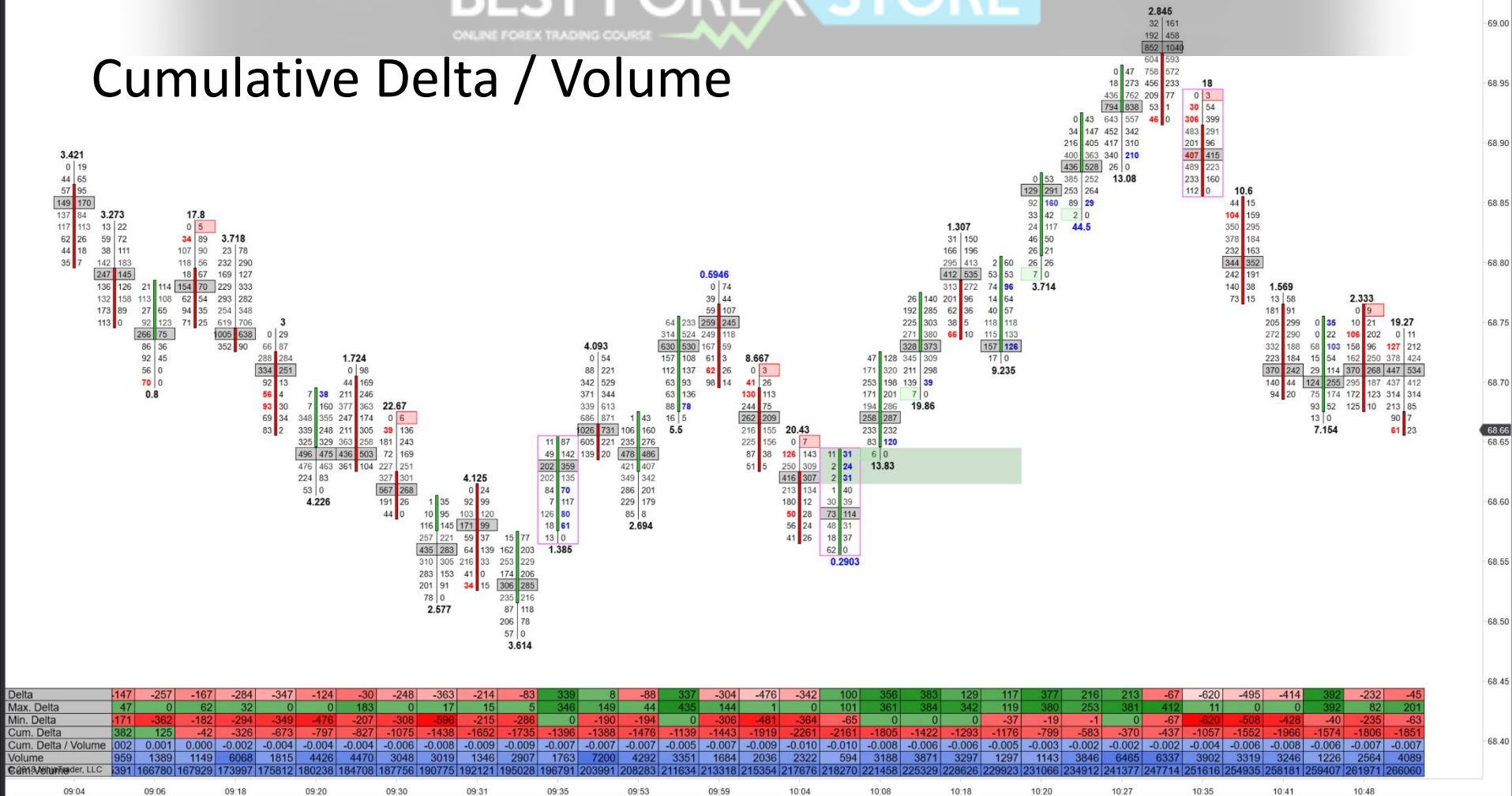
It shows an underlying strength in the market.

Cumulative Delta / Volume

Delta	17	-560	1735	-204	127	1931	3781	1111	3759	3595	3639	-1592	-91	990	985	4475	3376	1401	2229	398	-1418	-1294	45	1993	999	-583	1112	1981	-501	-864	323	900	-410
Max. Delta	17	480	1994	10	877	2186	3785	1103	3878	4505	3679	147	597	570	1006	4752	5039	1558	2865	3989	28	2	637	1759	1064	411	1222	2168	47	64	552	1283	44
Min. Delta	23	-765	-323	-1091	-104	-22	-73	-146	-4	-1070	-93	-1738	-2341	-1216	-285	0	-415	-697	-548	-253	-1819	-1380	-340	-210	-465	-1247	-250	-208	-790	-929	-236	-3	-486
Cum. Delta	18	258	1993	1789	1916	3847	7628	8039	11798	15393	19031	17439	17348	16358	17343	21818	25194	26595	28824	29222	27804	28510	26555	27948	28947	28364	29836	31487	30986	30122	30445	31345	30935
Cum. Delta / Volume	33	0.001	0.007	0.006	0.006	0.012	0.022	0.022	0.031	0.038	0.045	0.040	0.038	0.035	0.037	0.045	0.050	0.051	0.053	0.051	0.047	0.044	0.044	0.045	0.047	0.045	0.046	0.048	0.047	0.045	0.046	0.045	0.045
Volume	33	13656	13311	8856	10863	15165	15635	15613	12815	17771	16818	13627	18883	10668	10221	13997	20784	16327	20331	25140	19286	9028	8535	9131	72115	11193	9314	8799	5897	5844	6539	6348	5356
Cumulative Delta, LLC	38	286944	300255	309111	320094	331661	347596	362909	375724	390343	409521	433937	458280	463488	473689	487686	508670	524797	545128	570538	589824	598852	605387	614518	621713	632926	642240	651039	656936	662420	668959	673507	680663

A lot of times the cumulative delta/volume is so small that it is useless.

Cumulative Delta / Volume



Another problem with Cumulative Delta / Volume is over time it can flatten. As the day goes on changes are minor. So it will be difficult to see any changes have an effect on the market.

A horizontal timeline bar with a color gradient from blue to orange. It is marked with time intervals from 08:00 to 10:40 in 10-minute increments.

I will admit I don't pay much attention to the cum delta/volume ratio. Personally I just find there is a lot of other information in other forms of delta that is more useful.

By now you should understand the different types of delta numbers available for your analysis and more importantly you should understand what they mean and how to use them.

This is the end of lesson 3. In lesson 4, I will explain in detail order flow delta setups so that you can start looking for them yourself.