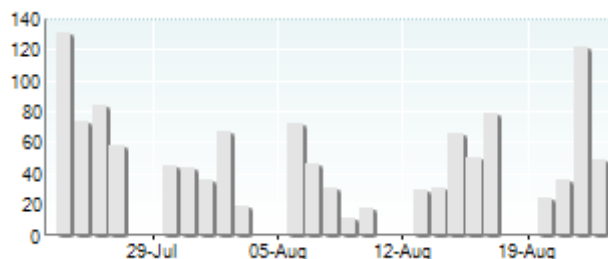


Trading Summary

Value Traded:	€ 10,791,300
NumberOfTrades:	1,215
Average Trade Size:	€ 8,882
Average On-book Spread:	14.67 BPS
Distinct Instruments Traded:	165

Daily number of Trades

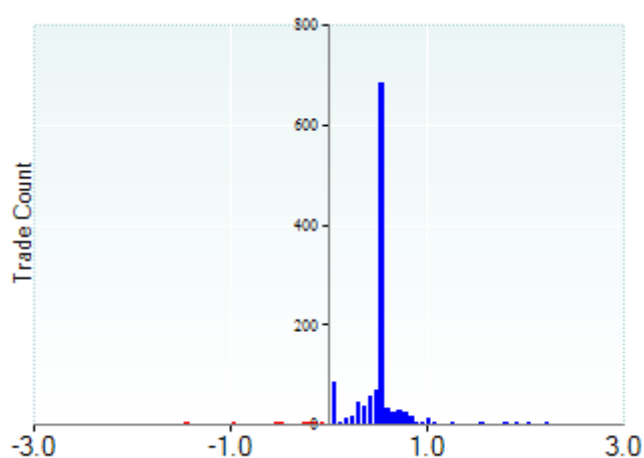


Performance Summary

	% By # of Trades	% By Value Traded
Percentage Success	98.52%	99.64%
Percentage Better	91.36%	97.12%
Percentage Equal	6.75%	2.32%
Percentage Worse	1.48%	0.36%
Not Benchmarked (N/B)	0.41%	0.20%

Average Improvement/Shortfall Value	7.57 BPS (€8,077)
Spread Capture	51.61%
SOR Improvement Potential Value	0.01 BPS (€12)

Spread Capture Histogram



Performance Breakdown by Execution Venue

Venue	# Trades	Value(€)	Val(%)	% Better	% Equal	% Success	% N/B	SOR (EUR)	SOR (BPS)	Imp(EUR)	Imp (BPS)	SC (%)	Spread (BPS)
Chi-Delta	1,215	10,791,300	100.00%	97.12%	2.32%	99.64%	0.20%	12	0.01	8,155	7.57	51.61%	14.67

Performance Breakdown by Instrument Traded

Instrument	# Trades	Value(€)	Val(%)	% Better	% Equal	% Success	% N/B	SOR (EUR)	SOR (BPS)	Imp(EUR)	Imp (BPS)	SC (%)	Spread (BPS)
WIENERBERGER AG WIENERBERGER ORD SHS	42	56,405	0.52%	96.46%	0.00%	96.46%	0.00%	1	0.24	63	11.19	49.91%	22.42
BOURBON SA BOURBON ORD SHS	42	67,005	0.62%	100.00%	0.00%	100.00%	0.00%	0	0.00	35	5.23	56.43%	9.26
VOESTALPINE AG VOESTALPINE ORD SHS	40	247,934	2.30%	100.00%	0.00%	100.00%	0.00%	0	0.00	133	5.38	80.65%	6.68
VOLKSWAGEN AG NON VTG PRF NPV	40	97,181	0.90%	95.93%	4.07%	100.00%	0.00%	0	0.00	28	2.88	47.86%	6.01
TELEKOM AUSTRIA AG	34	97,822	0.91%	100.00%	0.00%	100.00%	0.00%	0	0.00	116	11.82	52.74%	22.42

TELEKOM AUSTRIA ORD SHS													
OMV AG OMV ORD SHS	33	127,980	1.19%	97.90%	1.27%	99.16%	0.00%	0	0.01	51	3.98	43.18%	9.21
SKANDINAVIS KA ENSKILDA BANKEN AB SKANDINAVIS KA ENS	33	727,285	6.74%	98.78%	1.22%	100.00%	0.00%	0	0.00	347	4.77	42.87%	11.13
TELENET GROUP HOLDING NV TELENET GROUP HOLDING ORD	33	123,887	1.15%	100.00%	0.00%	100.00%	0.00%	0	0.00	35	2.79	35.32%	7.89
CS GROUP N	28	188,823	1.75%	81.15%	18.85%	100.00%	0.00%	0	0.00	42	2.24	35.81%	6.25
ELECTROLUX AB ELECTROLUX B ORD SHS	26	95,325	0.88%	93.67%	6.33%	100.00%	0.00%	0	0.00	43	4.46	48.76%	9.15
RAIFFEISEN BANK INTERNATIONAL AG RAIFFEISEN BANK I	25	60,564	0.56%	100.00%	0.00%	100.00%	0.00%	0	0.00	80	13.15	49.00%	26.84
VOLVO AB VOLVO B ORD SHS	25	296,962	2.75%	100.00%	0.00%	100.00%	0.00%	0	0.00	93	3.12	51.90%	6.02
SSAB AB SSAB A ORD SHS	24	114,538	1.06%	87.54%	12.46%	100.00%	0.00%	0	0.00	45	3.91	43.73%	8.94
RHI AG RHI ORD SHS	21	97,400	0.90%	100.00%	0.00%	100.00%	0.00%	0	0.00	112	11.51	40.28%	28.58
DEUTSCHE BANK AG DEUTSCHE BANK ORD SHS	20	73,025	0.68%	97.12%	2.88%	100.00%	0.00%	0	0.00	18	2.46	42.51%	5.78
ERSTE GROUP BANK AG ERSTE GROUP BANK ORD SHS	20	71,147	0.66%	99.98%	0.02%	100.00%	0.00%	0	0.00	34	4.78	44.69%	10.69
BWIN.PARTY DIGITAL ENTERTAINMENT PLC ORD 0.015P	20	241,577	2.24%	100.00%	0.00%	100.00%	0.00%	0	0.00	747	30.92	56.28%	54.94
MODERN TIMES GROUP MTG AB MODERN TIMES GROUP MTG B	20	309,937	2.87%	96.44%	0.19%	96.63%	0.00%	2	0.08	815	26.30	71.81%	36.63
INVESTOR AB INVESTOR B ORD SHS	19	139,580	1.29%	95.69%	4.31%	100.00%	0.00%	0	0.00	60	4.28	45.19%	9.46
AKER ASA AKER ORD SHS	19	112,992	1.05%	100.00%	0.00%	100.00%	0.00%	0	0.00	238	21.02	48.27%	43.54
ELEKTA AB ELEKTA B ORD SHS	19	44,425	0.41%	87.63%	12.37%	100.00%	0.00%	0	0.00	19	4.33	82.23%	5.26
VERBUND AG VERBUND ORD SHS	19	56,378	0.52%	100.00%	0.00%	100.00%	0.00%	0	0.00	66	11.63	51.50%	22.59
ETABLISSEMENTS DELHAIZE FRERES ET C GROUPE DELHAIZ	18	100,060	0.93%	100.00%	0.00%	100.00%	0.00%	0	0.00	65	6.50	46.90%	13.86
TELE2 AB TELE2 B ORD SHS	18	87,047	0.81%	97.25%	2.75%	100.00%	0.00%	0	0.00	37	4.25	48.58%	8.75
AB SKF SKF B ORD SHS	18	107,313	0.99%	97.75%	2.25%	100.00%	0.00%	0	0.00	36	3.39	47.31%	7.17
SCHOELLER BLECKMANN OILFIELD EQUIPM-SCHOELLER-BLEC	17	97,609	0.90%	100.00%	0.00%	100.00%	0.00%	0	0.00	54	5.50	32.34%	17.01

SVENSKA HANDELSBAN KEN AB SVENSKA HANDELSBAN KEN A O	17	159,713	1.48%	71.50%	28.50%	100.00%	0.00%	0	0.00	25	1.54	35.84%	4.30
SVENSKA CELLULOZA AB SCA SVENSKA CELLULOZA B ORD S	15	452,273	4.19%	100.00%	0.00%	100.00%	0.00%	0	0.00	301	6.66	60.55%	11.00
ERICSSON ERICSSON B ORD SHS	15	43,392	0.40%	97.23%	2.77%	100.00%	0.00%	0	0.00	16	3.80	48.61%	7.82
ATLAS COPCO AB ATLAS COPCO A ORD SHS	14	174,620	1.62%	94.46%	5.54%	100.00%	0.00%	0	0.00	54	3.08	47.10%	6.55

Performance Breakdown by Country

Country	# Trades	Value(€)	Val(%)	% Better	% Equal	% Success	% N/B	SOR (EUR)	SOR (BPS)	Imp(EUR)	Imp (BPS)	SC (%)	Spread (BPS)
SE Sweden	374	3,499,633	32.43%	95.61%	3.82%	99.44%	0.00%	9	0.02	2,479	7.08	53.98%	13.12
AT Austria	287	983,367	9.11%	99.21%	0.17%	99.38%	0.00%	2	0.02	738	7.51	49.06%	15.31
DE Germany	138	2,153,258	19.95%	98.89%	0.58%	99.47%	0.00%	1	0.00	1,233	5.73	55.69%	10.28
FR France	85	432,700	4.01%	97.80%	2.20%	100.00%	0.00%	0	0.00	128	2.96	50.79%	5.84
FI Finland	83	2,096,274	19.43%	93.37%	0.72%	100.00%	5.91%	0	0.00	1,920	9.73	48.37%	20.12
CH Switzerland	65	503,425	4.67%	89.06%	10.94%	100.00%	0.00%	0	0.00	295	5.86	46.05%	12.73
BE Belgium	53	227,792	2.11%	100.00%	0.00%	100.00%	0.00%	0	0.00	100	4.39	42.11%	10.43
NO Norway	37	158,931	1.47%	97.79%	2.21%	100.00%	0.00%	0	0.00	270	16.97	48.11%	35.27
NL Netherlands	27	215,144	1.99%	100.00%	0.00%	100.00%	0.00%	0	0.00	65	3.04	51.11%	5.95
GI Gibraltar	20	241,577	2.24%	100.00%	0.00%	100.00%	0.00%	0	0.00	747	30.92	56.28%	54.94
GB United Kingdom	18	74,427	0.69%	97.35%	2.65%	100.00%	0.00%	0	0.00	13	1.71	46.14%	3.71
DK Denmark	11	43,074	0.40%	86.93%	0.00%	86.93%	0.00%	0	0.08	19	4.52	41.26%	10.96
IT Italy	9	132,439	1.23%	100.00%	0.00%	100.00%	0.00%	0	0.00	63	4.77	50.00%	9.55
BM Bermuda	4	17,658	0.16%	58.63%	41.37%	100.00%	0.00%	0	0.00	3	1.47	31.38%	4.68
LU Luxemburg	3	11,436	0.11%	100.00%	0.00%	100.00%	0.00%	0	0.00	3	2.87	30.53%	9.39
PT Portugal	1	167	0.00%	100.00%	0.00%	100.00%	0.00%	0	0.00	0	6.29	75.00%	8.39

Performance Breakdown by Hour Of Day

Hour Of Day	# Trades	Value(€)	Val(%)	% Better	% Equal	% Success	% N/B	SOR (EUR)	SOR (BPS)	Imp(EUR)	Imp (BPS)	SC (%)	Spread (BPS)
08:00 -09:00	132	1,758,771	16.30%	98.75%	1.08%	99.84%	0.00%	2	0.01	2,068	11.76	53.25%	22.08
09:00 -10:00	192	1,441,087	13.35%	97.27%	2.58%	99.86%	0.00%	2	0.01	936	6.50	44.36%	14.64
10:00 -11:00	184	1,210,389	11.22%	92.60%	7.40%	100.00%	0.00%	0	0.00	1,263	10.43	60.67%	17.20
11:00 -12:00	120	1,809,445	16.77%	97.17%	1.68%	100.00%	1.15%	0	0.00	1,107	6.19	46.39%	13.34
12:00 -13:00	103	884,117	8.19%	97.81%	1.79%	99.60%	0.00%	3	0.04	698	7.90	52.36%	15.08
13:00 -14:00	78	575,980	5.34%	94.83%	5.09%	99.92%	0.00%	0	0.00	502	8.71	51.79%	16.82
14:00 -15:00	180	1,299,504	12.04%	96.66%	1.46%	98.47%	0.36%	4	0.03	721	5.57	54.45%	10.23
15:00 -16:00	170	1,470,233	13.62%	96.48%	2.95%	99.43%	0.00%	0	0.00	719	4.89	49.90%	9.80
16:00 -17:00	56	341,773	3.17%	96.51%	3.25%	99.76%	0.00%	0	0.01	122	3.58	48.96%	7.32

Performance Breakdown by Trading Month

Month	# Trades	Value(€)	Val(%)	% Better	% Equal	% Success	% N/B	SOR (EUR)	SOR (BPS)	Imp(EUR)	Imp (BPS)	SC (%)	Spread (BPS)
Aug-2012	782	7,332,241	67.95%	97.35%	2.15%	99.76%	0.27%	8	0.01	5,661	7.74	53.67%	14.42
Jul-2012	433	3,459,059	32.05%	96.40%	2.84%	99.24%	0.00%	4	0.01	2,497	7.22	47.52%	15.19

Worst Performing Trades

Showing up to 5 trades with a shortfall worse than 0.00 BPS

Trade Time	Venue		Instrument	Val (€)	Qty	Price	Benchmark Price	Best	Impr (BPS)	SC (%)	Impr (€)
15-Aug-12 12:33:04.484	CHID	B	HOLMEN AB HOLMEN B ORD SHS	2,514	121	172.65	172.5	XSTO	-8.69	-1.50	-2.18
15-Aug-12 12:33:40.531	CHID	B	HOLMEN AB HOLMEN B ORD SHS	208	10	172.65	172.5	XSTO	-8.69	-1.50	-0.18
25-Jul-12 14:28:20.406	CHID	S	ALLIANCE OIL COMPANY LTD ALLIANCE OIL COMPANY SDR	751	101	61.75	61.8	XSTO	-8.10	-1.00	-0.61
07-Aug-12 09:11:44.328	CHID	B	WIENERBERGER AG WIENERBERGER ORD SHS	1,999	300	6.6645	6.66	CHIX	-6.75	-0.56	-1.35
15-Aug-12 12:33:40.781	CHID	B	HOLMEN AB HOLMEN B ORD SHS	1,288	62	172.6	172.5	XSTO	-5.79	-1.00	-0.75

Best Performing Trades

Showing up to 5 trades with an improvement better than 0.00 BPS

Trade Time	Venue		Instrument	Val (€)	Qty	Price	Benchmark Price	Best	Impr (BPS)	SC (%)	Impr (€)
07-Aug-12 10:13:44.291	CHID	B	MODERN TIMES GROUP MTG AB MODERN TIMES GROUP MTG B	93,156	2,500	309.6	311.6748	XSTO	67.02	0.81	624.29
17-Aug-12 08:52:53.754	CHID	S	BWIN.PARTY DIGITAL ENTERTAINMENT PLC ORD 0.015P	52,575	42,582	97.675	97.14424	LSE2	54.34	0.58	285.69
03-Aug-12 12:53:46.892	CHID	S	TAG IMMOBILIEN AG TAG IMMOBILIEN ORD SHS	23,387	2,970	7.8745	7.837575	XETR	46.89	0.83	109.67
20-Aug-12 10:13:21.126	CHID	B	GAM Holding AG	13,054	1,340	11.7	11.75	XSWX	42.74	0.50	55.79
17-Aug-12 08:52:40.875	CHID	S	BWIN.PARTY DIGITAL ENTERTAINMENT PLC ORD 0.015P	24,421	19,774	97.7	97.31959	LSE2	38.94	0.57	95.09

LiquidMetrix Calculation Methodology

Benchmark Prices

All results shown in this LiquidMetrix report are obtained by comparing the price of each trade versus a **benchmark price** that reflects the best possible price a participant could have got by routing a single aggressive order to the trading venue with the best price available at the time the trade executed.

Benchmark Prices are calculated by the following process:

- For each trade, based on the ISIN and CCY of the instrument traded, a list is compiled of all lit venues where that instrument could have been traded at the time of trade.
- The **benchmark price** calculated is the best price that could have been obtained by routing an **aggressive** order to that venue. Volume is taken into account; so if necessary the simulated aggressive order will match up the order book of a venue to obtain an average execution value.
- It is possible for a **price improvement** to be measured in cases where customer orders are executed via passive limit orders placed on lit books or on dark midpoint matching venues, have been traded off-book via broker crossing networks or similar. In such cases the benchmark price for the best possible on-book aggressive order may be worse than the actual price achieved by the customer.

Details by Section

Trading Summary Section

- **Value Traded** : The sum of all the notional values of all trades in the reporting period.
- **Number Of Trades**: Number of distinct trades (fills) analysed.
- **Average Trade Size**: Average notional value of each trade (fill).
- **Average On-book Spread**: This is calculated by measuring, at the exact instant of each trade, the on-book bid/offer spread of the lit venue with the tightest spread. These values are averaged over all trades (weighted by trade value). This measure gives an indication if the trades are in liquid, low spread stocks (small number) or less liquid, high spread stocks (larger number).
- **Distinct Instruments Traded**: Number of distinct ISIN/CCY instruments for which trades are included in this report.
- The graph on the right shows one of four things:
 - The total number of trades performed each day.
 - The total value traded each day.
 - A summary of the percentage of times each day (based on trade count) that trades were better than (dark blue), equal to (light blue) or worse than (red) the benchmark price.
 - A daily value traded summary where the bar is sectioned according to value traded at better than benchmark prices (blue), value traded at exactly benchmark prices (light blue) and value traded at worse than benchmark prices (red).

Performance Summary Section

The percentage success summary table shows the percentage of times over the reporting period that trades were:

- **Successful**: The price achieved was better than or equal to the benchmark price
- **Better**: The price achieved was better than the benchmark price.
- **Equal**: The price achieved was equal to the benchmark price.
- **Worse**: The price achieved was worse than the benchmark price.
- **Not Benchmarked (N/B)**: The trade was illiquid and / or could not be benchmarked. This might be because
 - The trade occurred at a time when there was no continuous trading on lit venues, i.e. before or after normal trading hours.
 - The trade occurred at a time that continuous trading was suspended on the main market or the market was in 'auction' mode.
 - No lit venue had sufficient volume to fully execute the size of the trade.
 - The ISIN/CCY reported did not match an ISIN/CCY in the LiquidMetrix Database.

Percentage values are reported based on both number of trades and by value traded.

Below this there are some summary performance values

- **Average Improvement / Shortfall** : The total value of price improvement (or shortfall) achieved over all trades executed in the reporting period. If all trades were executed at exactly the benchmark value this number would be 0. A positive value implies overall price improvement versus benchmark prices. A negative value indicates an overall shortfall. Numbers are reported both as a total summed monetary value and as a BPS (0.01%) fraction of total value traded.
- **Spread Capture** : For each trade a 'spread capture' value is the price of the trade relative to the bid/offer spread on the venue with the best lit prices. A spread capture of zero would indicate that the trade occurred at exactly the best aggressive price available on the market. A spread capture of 100% would indicate that a trade occurred at the 'far' touch, 50% would indicate a mid-point match. The value reported here is the average spread capture achieved over all trades in the reporting period, weighted by the value of each trade.
- **SOR Improvement Potential** : This metric focuses solely on those trades that were executed at prices **worse** than benchmark. For such trades the value is calculated as the total value lost by not executing at the best price available. By adding up these values over all trades, we arrive at the maximum possible improvement that might be expected if all trades had been routed to the best venue. The value is reported in terms of an absolute amount and as a BPS fraction of the total value traded.

The graph on the right shows a frequency histogram of trades occurring at different **spread captures** (see definition above). Spikes at a value of 0.0 will indicate trades occurring at exactly the market benchmark price. A spike at 0.5 indicates mid-point matches occurring. Spikes at 1.0 indicate trades achieving far touch benchmark prices. Trades that happen at prices worse than benchmark appear as values less than zero to the left in red. This graph can give a useful insight into what type of price improvement/shortfalls are occurring.

Aggregate Performance Breakdown Tables

These tables summarise trading activity and performance split by different characteristics of the trade such as execution venue, instrument traded, trade size, country traded, etc.

Each table has the same structure with the following table columns [not all will appear in all reports].

- **[Aggregate]** : The first column shows the 'value' for which trades are being aggregated in each row. It is different for each table shown.
- **[# Trades]** : The number of trades for this row of data.
- **[Value(CCY)]** : The total value traded for the trades in this row of data.
- **[% Better]** : The percentage number of trades that executed at a price better than benchmark price.
- **[% Equal]** : The percentage number of trades that executed at a price equal to benchmark price.
- **[% Worse]** : The percentage number of trades that executed at a price worse than benchmark price.
- **[% Success]** : The percentage number of trades that executed at or better than the benchmark price.
- **[% N/B]** : The percentage number of trades for which a benchmark price was not calculated (see the performance summary section for details on what kinds of trades are not benchmarked).
- **SOR (CCY)** : The total value obtained adding all shortfalls (trade prices worse than market) for all trades on this row (see performance summary section for more detail).
- **SOR(BPS)** : The SOR value above as a BPS fraction of total value traded.
- **Imp(CCY)** : The total value of all price improvements, averaged over all trades in this row (see performance summary section for more detail).
- **Imp(BPS)** : Price improvement value above as a BPS fraction of total value traded.
- **SC (%)** : The average spread capture in % over all trades in this row.
- **Spread (BPS)** : The average on-book spread in BPS over all trades in this row.