

AUTOLIV INC AUTOLIV SDR

SELL 6,500 @ 374.771

OrderID = 1:65644660 (No Basket)
 SE0000382335, SEK

PM ID: Decision Time: -
 Flow Type: VWAP Arrival Time: 27-Jul-12 08:47:05
 Note: First Fill Time: 27-Jul-12 08:47:05
 User Def: Last Fill Time: 27-Jul-12 16:19:30

Trading Summary

Value Traded: **SEK2,436,009**
 Volume Traded: **6,500**
 Number of Fills: **99**
 Average Fill Size: **SEK24,606.15**
 Duration: **7h 32m**
 ParticipationRate: **1.81%**
 Book Spread (depth): **10.02 BPS**
 Book Spread (touch): **9.91 BPS**
 Execution Style:

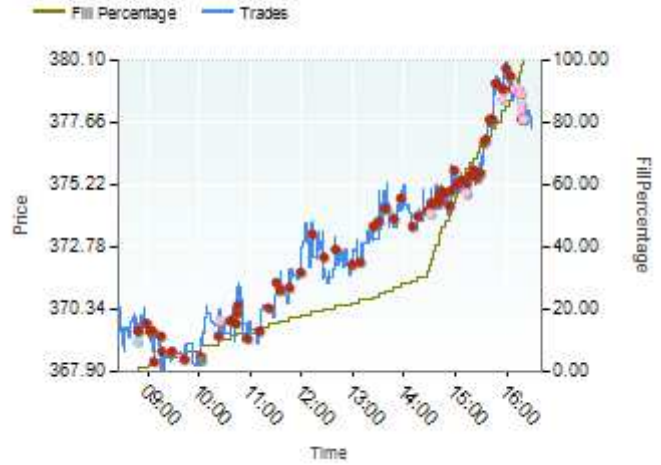
Aggr	Pass	Mid
22.2%	77.8%	0.0%

Venue Types:

Prim	MTF	Other
15.6%	83.4%	1.0%

Venues Traded:
 CHIX: 83.37% XSTO: 15.58% XUBS: 0.98% TRQX: 0.08%

Order Execution History

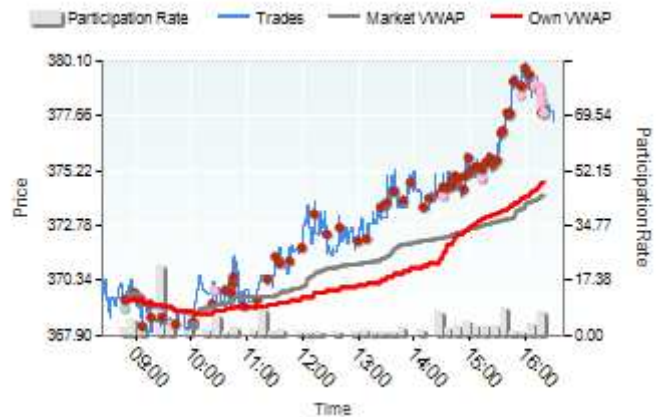


Performance Summary

Imp. Shortfall (Arrival touch): **151.309 BPS**
 VWAP (First To Last): **17.524 BPS**
 Avg. Spread Capture: **76.59%**

Benchmark	Price	(+/-) BPS
Price Achieved	374.770600	
Arrival Price (touch)	369.100000	+151.309
Arrival Price (mid)	369.250000	+147.306
First Fill Price (touch)	369.100000	+153.633
First Fill Price (mid)	369.250000	+149.508
Previous Close	367.500000	+197.839
Opening Price	371.900000	+77.187
Closing Price	377.400000	-69.671
VWAP (First To Last)	374.114988	+17.524
VWAP (Daily)	374.140716	+16.835
VWAP (20% Part.)	369.285311	+148.538

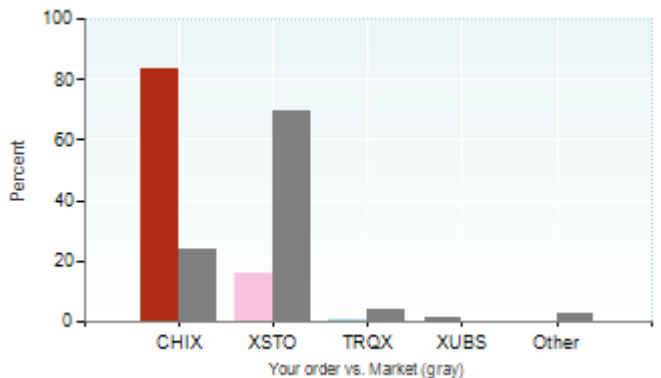
Order Execution History - Own VWAP vs Market and Participation Rate



Venue Breakdown

Venue	Trades (#)	Order (%)	Market (%)	+/-	Success (%)	Imp (BPS)	SC (%)
CHIX	82	83.37	23.52	-59.85	100.00	9.67	92.8
XSTO	15	15.58	69.62	54.04	100.00	0.00	0.0
TRQX	1	0.08	4.08	4.00	100.00	0.00	0.0
XUBS	1	0.98	-	-0.98	0.00	-6.79	-121.2

MarketShare Analysis



Detailed Analysis and Breakdowns

Performance Breakdown by Execution Venue

Venue	# Trades	Value (SEK)	% Illiq.	% Better	% Equal	% Worse	SOR (SEK)	BPS	P/L (SEK)	P/L BPS	SC (%)	Spread (BPS)
Chi-X Europe	82	2,030,811	0.00%	92.68%	7.32%	0.00%	0.00	0.00	1,963	9.67	92.76%	10.42
OMX Stockholm	15	379,410	0.00%	0.00%	100.00%	0.00%	0.00	0.00	0.00	0.00	0.00%	8.14
Turquoise	1	1,846	0.00%	0.00%	100.00%	0.00%	0.00	0.00	0.00	0.00	0.00%	10.84
XUBS	1	23,943	0.00%	0.00%	0.00%	100.00%	16.25	6.79	-16.25	-6.79	-121.24%	5.60

Performance Breakdown by TradeSize

Trade Size	# Trades	Value (SEK)	% Illiq.	% Better	% Equal	% Worse	SOR (SEK)	BPS	P/L (SEK)	P/L BPS	SC (%)	Spread (BPS)
1: Tiny (0-1k)	1	756	0.00%	0.00%	100.00%	0.00%	0.00	0.00	0.00	0.00	0.00%	7.93
2: Small (1-5k)	5	14,139	0.00%	80.00%	20.00%	0.00%	0.00	0.00	12.00	8.49	85.71%	9.90
3: Medium (5-10k)	14	97,147	0.00%	71.43%	28.57%	0.00%	0.00	0.00	70.00	7.21	71.72%	10.05
4: Medium II (10-25k)	35	645,970	0.00%	82.86%	14.29%	2.86%	16.25	0.25	441.65	6.84	77.58%	8.81
5: Large (25-50k)	38	1,369,300	0.00%	76.32%	23.68%	0.00%	0.00	0.00	1,194	8.72	84.19%	10.35
6: Large II (50-100k)	6	308,697	0.00%	66.67%	33.33%	0.00%	0.00	0.00	229.70	7.44	67.28%	11.06

LiquidMetrix Calculation Methodology

Benchmark Prices

The results shown in this report are calculated by comparing prices achieved by each Order with market prices and liquidity about the time of the Order. More specifically:

- The individual Trade Fills of Parent Orders are compared with lit order book liquidity (bids and offers on lit venues) at the time of each fill. Based on this, an assessment is made of whether the price of each Fill achieved the best possible price available in the market at that time. The benchmark used for this assessment is the price that would have been achieved by sending a single aggressive order with the same volume as the Trade Fill in question to the best lit venue at the time of the Fill.
- Overall performance of the Parent Order is based on an assessment of the average price achieved by the Parent Order with various metrics measured over the lifetime of the Order. These metrics include 'Implementation Shortfall' type measures based on the Arrival Price of the order and 'VWAP' type measures that compare the average price achieved in the market around the time of the Parent Order.

Results shown in this report are a combination of 'Trade Fill' level and 'Parent Order' level benchmarking.

Details by Section

Trading Summary Section

- **Value Traded** : The sum of all the notional values of all orders in the reporting period.
- (Bought) : [Optional] The sum of all Buy Orders in the reporting period.
- (Sold) : [Optional] The sum of all Sell Orders in the reporting period.
- **Number Of Orders (fills)**: Number of distinct orders (fills) analysed.
- **Average Order Size (Average Fill Size)**: Average notional value of each order (fill).
- **Book Spread (depth/touch)**: This is calculated by measuring, at the exact instant of each trade fill, 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). The value 'at touch' means that top of the book bid/offer spreads are used. The value 'at depth' means that the size of each fill is taken into account and spreads are based on 'matching down' the lit order book.
- **Distinct Instruments**: Number of distinct ISIN/CCY instruments for which trades are included in this report.
- **Average Trade Duration**: Average time (in hours) from the first fill to last fill over all orders.
- **Execution Style**: Each fill is compared to EBBO and based on this an assessment is made of whether the trade was aggressive (paying the spread), passive (capturing the spread) or mid (capturing some of the spread). A breakdown is then shown of the relative percentages of each type of trade.
- **Venue Types**: A breakdown based on whether each fill is traded on a Primary Exchange, and MTF or 'Other'. 'Other' may mean dark pools, crossing networks or any other venue that is not a Regulated Exchange or MTF.
- **Venues Traded**: A breakdown of the percentage of fills that are executed on each trading venue.
- The graph on the right will show one of four things:
 - The total value traded each day.
 - A breakdown of orders based on the size of order.
 - A breakdown of all orders based on the country of the stock traded (first two characters of the ISIN code).
 - A breakdown of all orders based on the Portfolio Manager associated with the order.

Performance Summary Section

The table on the left shows overall order performance versus a number of benchmarks (some or all may be shown). The table always shows overall average improvement (shortfall) in basis points (BPS) versus each benchmark. It also shows either a breakdown of that performance by buy/sell orders or the standard deviation of individual benchmark performances. The benchmarks available are:

- **Market VWAP First/Last Benchmark** is the VWAP price of all public trades during continuous trading and auctions on all lit venues (primaries and MTFs) over the period of the order.
- **Market Daily VWAP Benchmark** is the VWAP price of all public trades during continuous trading and auctions on all lit venues (primaries and MTFs) on all complete trading days of the order.
- **VWAP (20% Part.) Benchmark** is VWAP price based on participating 20% of the market till the order is filled based on all public trades (continuous and auctions) on all lit venues (primaries and MTFs).
- **Arrival (mid) Benchmark** is the mid price on the primary exchange at the 'Arrival Time' of the order. This is often referred to as 'Implementation Shortfall'.
- **Arrival (touch) Benchmark** is the touch price (bid for a sell order, offer for a buy order) on the primary exchange at the 'Arrival Time' of the order.
- **First Fill (Mid) Benchmark** is the mid price on the primary exchange at the time the First Fill of the order is executed.
- **Previous Closing Price Benchmark** is the previous day's closing price on the primary exchange.
- **Opening Price Benchmark** is the opening price on the primary exchange on the first day of the order.
- **Closing Price Benchmark** is the day's closing price on the primary exchange on the last day of the order.

Below this there is a summary performance and standard deviation for the principal benchmark metric (this is chosen at report level).

The graph on the right shows the daily performances of orders versus the principal report benchmark. The solid rectangles show the mean benchmark performance in basis points (BPS) for that day coloured blue for an improvement and red for a shortfall. The thin vertical lines show 1 standard deviation above and below the mean and give an indication of the variation in order performance day by day.

Aggregate Performance Breakdown Tables

These tables summarise trading activity and performance split by different characteristics of the order such as order side (buy/sell), order size, instrument traded, country traded, etc. Note that orders for which benchmark prices are not available, for instance in the case of a VWAP order that executes instantaneously are excluded.

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 orders are being aggregated in each row. It is different for each table shown.
- **# Orders** : The number of orders for this row of data.
- **Value(CCY)** : The total value traded for the orders in this row of data.
- **Val(%)** : The percentage of value traded for the orders in this row versus the overall order volume.
- **Perf v. [Primary Benchmark]** : Average order performance for this row versus the Primary Benchmark in basis points (BPS).
- **SD (BPS)** : Standard deviation of order performance for this row versus Primary Benchmark in basis points (BPS).
- **Perf v. [Secondary Benchmark]** : Average order performance for this row versus the Secondary Benchmark in basis points (BPS).
- **SD (BPS)** : Standard deviation of order performance for this row versus the Secondary Benchmark in basis points (BPS).
- **Avg Dur.** : The average duration from First Fill Time to Last Fill Time for orders in this row.
- **Avg Ord Size** : The average size of orders in this row.
- **Avg Fill Size** : The average size of fills in this row.
- **Ord/Fill Ratio** : The average number of fills per order in this row.
- **%Trad Agg** The percentage of fills in this row that were traded aggressively (full EBBO spread was paid).
- **%Trad Pas** The percentage of fills in this row that were traded passively (full EBBO spread was captured).
- **%Trad Mid** The percentage of fills in this row that were traded at mid prices (part of the EBBO spread was captured).
- **%Trad Prim** The percentage of fills in this row that were traded on a Primary Listing exchange.
- **%Trad MTF** The percentage of fills in this row that were traded on an MTF.
- **%Trad Other** The percentage of fills in this row that were traded on a venue that is not a Regulated Exchange or an MTF.
- **SC (%)** : The average Spread Capture in % achieved over all fills in this row. Spread capture of 0.0% indicates that the fill occurred at aggressive EBBO price, a spread capture of 50.0% indicates an EBBO mid point match and a spread capture of 100.0% indicates a fill occurred at passive EBBO price. Maximum values of +/- 200% are shown.
- **Spread (depth)** : The average on-book spread in BPS over all fills in this row. The spread is weighted by fill volume, i.e. the order book is matched down.
- **Imp (BPS)** : The average amount (in basis points) that each fill improved on the price that would be achieved by sending a single aggressive order to the best venue at the time of the fill. A blue number represents an improvement a red one represents a shortfall.
- **SOR Shortfall** : The overall amount (in basis points) that fills could have been improved where a better price was possible by sending an aggressive order to a lit venue.

Best/ Worst / Largest Orders Tables

These tables provide a list of the best / worst / largest orders in the reporting period.

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

- **Time** : The 'Arrival Time' of the order.
- **Buy/Sell** : Shows if the order was a buy (B) or sell (S).
- **Instrument** : The instrument traded.
- **Volume** : Total Volume (number of shares) of the order.
- **Value(CCY)** : The total value traded (based on fills).
- **% Filled** : The percentage of the original order size that was filled.
- **#Fills** : The number of fills.
- **Duration** : The total time between the First Fill and the Last Fill of the order.
- **%Part** : The average market participation rate for the order between First Fill Time and Last Fill Time. A maximum value of 100% is shown.
- **Price Achieved** : The average price achieved by the order.
- **[Benchmark]** : The benchmark price for the order. The benchmark type shown is based on the Primary Benchmark chosen for the report.
- **(BPS)** : Improvement (blue) or shortfall (red) in basis points of the achieved order price versus the benchmark price.
- **SC%** The average spread capture in % of all fills of the order versus EBBO prices. Maximum values of +/- 200% are shown.
- **Spread** The average spread on the primary market at the time of each fill of the order. The value is shown in basis points (BPS).