Pareto Securities AS Equity Research

Restructuring process on track

Schaltbau Holding today released a few preliminary numbers for 2018. Like-for-like group sales came in slightly below (-2.4%) our estimate, while the achieved EBIT operating margin of c. 3.0% compares to our estimate of 3.6%. The first verbal outlook statement for 2019e confirms our expectations of a continuing margin improvement. Financial debt restructuring will be one of the challenges within 2019e. We interpret the company's statement as a confirmation of our current investment case. Buy. TP EUR 32.30 from EUR 32.80 per share.

Successful turnaround in 2018e

Group sales increased 11% on a like-for-like basis to EUR ~480m from EUR 432m (Pareto calculation). The EBIT operating margin reached c. 3% (2017: 0.5%) and is signalling the turnaround. We were slightly too optimistic and have cut our margin to 3.2% now.

First guidance for 2019e signals further margin improvement

In a first verbal outlook statement Schaltbau wants to achieve a further noticeable margin improvement on its way back to historic levels. We translate this into a mid-term range of 7.0%-9.0%.

Financial restructuring important

A significant improvement in the group's net financial debt was already achieved. In the course of FY 2019e, a syndicated credit line of EUR 100m has to be refinanced.

Valuation: DCF-model signals upside potential

Based on our updated TP of EUR 32.30 the shares currently offer a significant upside potential. Our current P/E 19e of 16.6 compares to the Industrial's sector P/E (GER) of 15.5. For FY 20e Schaltbau's P/E of 12.1 compares to the sector of 13.3. Based on our TP the implicit P/E 19e amounted to 26.7 and for 20e of 19.4.

| EURm | 2016 | 2017 | 2018e | 2019e | 2020e |
|---------------|--------|--------|--------|-------|-------|
| Revenues | 509 | 517 | 480 | 502 | 520 |
| EBITDA | 16 | 20 | 25 | 34 | 40 |
| EBIT | (11) | (25) | (1) | 25 | 31 |
| EPS | (2.61) | (8.03) | (0.71) | 1.21 | 1.66 |
| EPS adj | (3.75) | (5.27) | 0.67 | 1.21 | 1.66 |
| DPS | - | - | - | - | 0.30 |
| EV/EBITDA | 22.1 | 17.8 | 11.8 | 8.5 | 7.0 |
| EV/EBIT | - | - | - | 11.7 | 8.9 |
| P/E adj | - | - | 30.0 | 16.6 | 12.1 |
| P/B | 2.43 | 4.29 | 2.17 | 1.91 | 1.65 |
| ROE (%) | - | - | - | 12.2 | 14.6 |
| Div yield (%) | - | - | - | - | 1.5 |
| Net debt | 148 | 159 | 87 | 79 | 67 |

Source: Pareto

Schaltbau Holding AG

Sponsored Research Update 20 February 2019



| Target price (EUR) | 32 |
|--------------------|----|
| Share price (EUR) | 20 |

Forecast changes

| % | 2018e | 2019e | 2020e |
|--------------|-------|-------|-------|
| Revenues | (2) | - | - |
| EBITDA | (8) | - | - |
| EBIT adj | (12) | - | - |
| EPS reported | NM | - | - |
| EPS adj | (19) | - | - |
| | | | |

Source: Pareto

| Ticker | SLTG.DE, SLT GY |
|-----------------------------|-----------------|
| Sector | Industrials |
| Shares fully diluted (m) | 6.6 |
| Market cap (EURm) | 133 |
| Net debt (EURm) | 87 |
| Minority interests (EURm) | 31 |
| Enterprise value 18e (EURm) | 297 |
| Free float (%) | 32 |
| | |



Source: Factset

Pareto Securities AS has been paid by the issuer to produce this research report. This material is considered by Pareto Securities to qualify as an acceptable minor non-monetary benefit according to the EU MIFID 2 directive.

Analysts Winfried Becker

+496 95 8997 416, winfried.becker@paretosec.com

A long-term restructuring

investment idea

Investment case

The overall macroeconomic picture became worse during the last months and a lot of economists have revised their GDP forecasts down. The IMF now expects for the Euro area for 2019 a GDP growth of only +1.6% yoy versus their former forecast from October last year of +1.9% yoy. For Schaltbau, on average of the last three reported fiscal years, Germany and Europe account for 71% of the group total sales. As a result we currently see no new trigger for a higher valuation level from this front. It is also worth to mention that investments in rail infrastructure and rolling stock are less volatile than it is in other industries.

For Schaltbau this aspect is currently less relevant in our view, because the dominant triggers are internal factors. To mention a few, we see the group on track to reach this year's cost savings, financial debt reduction and solving problems with loss-making orders as they already did with the platform screen doors (PSD) project in Brazil.

Since the last AGM in summer 2018 the group has a partly changed management and supervisory board that are in our view clearly better for the overall restructuring process. In particular two aspects are important:

- The new Executive and Supervisory Boards now are much more competent with regard to the overall railway industry in addition to the existing financial and restructuring expertise.
- The relationship between Executive and Supervisory Board is now based more on arms-length principles than in history.

Looking forward, we expect a new and conservative new financial guidance for FY 2019e; our sales forecast currently assumes a growth rate of only 2% yoy to EUR 502m while the EBIT operating-margin is expected to rise to 4.9% from 3.2% a year earlier. Continuing reductions in the company's financial debt position also could become a positive share price trigger as well as a possible finalisation of the sale of Schaltbau Sepsa that is not an easy task.

Risks to the investment case

- The expected growth of the global railway markets will not meet Schaltbau's expectations with regard to their own targets
- The company will not meet all milestones fixed in the general restructuring plan, e.g. profitability improvement or working capital reduction targets
- Reduction of the group's financial debt might take longer than expected
- General inherent risks of the project business could lead to cost overruns or other burdening factors
- Further impairment risks in the group's company portfolio

Valuation Update

- Buy recommendation confirmed
- TP marginally down to EUR 32.30 from EUR 32.80 per share
- Current upside potential ~61%

We value the Schaltbau shares and derive our target price from our DCF-model. Using peer group multiples in our view currently do not cope with Schaltbau's turnaround situation.

Based on the first preliminary figures for FY 2018 Schaltbau group reached their own targets. Moreover and looking forward the margin improvement should continue, that is in line with our expectations. In addition, and as outlined several times, our recommendation is not free of risks, in particular when looking to the stretched financial debt situation.

Exhibit 1: Schaltbau Holding: DCF signals significant upside potential

| | | | Phase I | | | | | Phase II | | | Phase III |
|---|------------|-----------------------|---------------------|---------------------------------|--------------------------------|---------------------|-------------------------|---------------------|-------------------------|---------------------|---------------------|
| EUR m | 2018e | 2019e | 2020e | 2021e | 2022e | 2023e | 2024e | 2025e | 2026e | 2027e | |
| Revenues | 480.0 | 502.0 | 519.5 | 539.0 | 558.5 | 577.2 | 595.0 | 611.7 | 627.2 | 641.4 | |
| growth rate | -7.1% | 4.6% | 3.5% | 3.8% | 3.6% | 3.3% | 3.1% | 2.8% | 2.5% | 2.3% | |
| EBIT | 15.2 | 24.4 | 30.6 | 34.7 | 37.4 | 39.0 | 40.6 | 42.1 | 43.5 | 44.9 | |
| EBIT margin | 3.2% | 4.9% | 5.9% | 6.4% | 6.7% | 6.8% | 6.8% | 6.9% | 6.9% | 7.0% | |
| Tax | -4.6 | -7.3 | -9.2 | -10.4 | -11.2 | -11.7 | -12.2 | -12.6 | -13.1 | -13.5 | |
| Tax rate | 30% | 30% | 30% | 30% | 30% | 30% | 30% | 30% | 30% | 30% | |
| Depr. & Amort. | 26.8 | 9.5 | 9.0 | 9.0 | 9.0 | 10.1 | 10.9 | 11.4 | 11.8 | 12.2 | |
| %of sales | 5.6% | 1.9% | 1.7% | 1.7% | 1.6% | 1.8% | 1.8% | 1.9% | 1.9% | 1.9% | |
| Сарех | -9.0 | -9.0 | -11.3 | -11.6 | -11.4 | -11.7 | -12.0 | -12.3 | -12.6 | -12.8 | |
| %of sales | 1.9% | 1.8% | 2.2% | 2.2% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | |
| Change in WC & P | -2.3 | -2.0 | -2.2 | -2.3 | -2.7 | -2.8 | -2.9 | -3.0 | -3.1 | -3.2 | |
| % of sales | 0.5% | 0.4% | 0.4% | 0.4% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | |
| Free Cash Flow | 26.1 | 15.7 | 16.9 | 19.4 | 21.0 | 22.9 | 24.4 | 25.6 | 26.7 | 27.7 | 533. |
| growth rate Present Value FCF | nm 26.1 | -40.1% 14.7 | 7.9% 14.8 | ^{14.6%} 15.8 | 8.6% 16.0 | 9.1% 16.3 | 6.3% 16.2 | 4.9% 15.8 | 4.1% 15.3 | 3.8% 14.8 | 2.0% 285. |
| PV Phase I PV Phase II PV Phase III | | 87.5 78.4 285.5 | | | Risk fre Premiur Premiur | n Equity | 3.50% 5.00% 2.00% | | Targ.eq Beta WACC | uity ratio | 659 1. 7.39 |
| | | 205.5 | | | Fleiniui | | 2.00 /0 | | WACC | | 7.57 |
| Enterprise value | | 451.4 | | | Sensitiv | ity | | Gro | wth in p | hase III | |
| - Net Debt (Cash) | | 96.5 | | | | | 1.0% | 1.5% | 2.0% | 2.5% | 3.0% |
| - Pension Provisions | | 37.5 | | | | 6.57% | 32.9 | 36.2 | 40.3 | 45.5 | 52.0 |
| - Minorities & Peripherals | 5 | 31.3 | | | | 6.93% | 29.7 | 32.6 | 36.0 | 40.3 | 45.6 |
| + MV of financial assets | | | | | WACC | 7.30% | 26.9 | 29.4 | 32.3 | 35.9 | 40.2 |
| - Paid-out dividends for la | ast FY | 0.0 | | | | 7.66% | 24.4 | 26.6 | 29.1 | 32.1 | 35.7 |
| +/- Other EV items | | | | | | 8.02% | 22.2 | 24.1 | 26.3 | 28.8 | 31.9 |
| Equity value | | 286.1 | | | | | | | | | |
| Number of shares | | 200. I 8.85 | | | | | | | | | |
| | | 32.32 | | | | | | | | | |
| Value per share (€) | | 20.10 | | | | | | | | | |
| Current Price (€) | | 20.10 60.8% | | | | | | | | | |

Source: FactSet (share price as of 19 Feb. 2019), Pareto Securities

In our DCF-model we use EBIT adjusted figures. Following the published preliminary numbers today, we have slightly reduced our EBIT operating margin for FY 2018e down to 3.2 % from 3.5%. The mentioned figure for group sales of EUR 480m is a like-for-like number. The final reported group sales number will be higher than EUR 480m.

Exhibit 2: Peer-group comparison

| Company | PE 2019e | PE 2020e | EV/EBIT 2019e | EV/EBIT 2020e | EV/Sales 2019e | EV/Sales 2020e |
|--|-------------|-------------|------------------|------------------|-------------------|-------------------|
| Vossloh AG | 19.7 | 16.6 | 13.2 | 11.1 | 1.0 | 0.9 |
| Ansaldo STS SpA | 27.4 | nm | nm | nm | 1.5 | nm |
| Construcciones y Auxiliar de Ferrocarriles, S.A. | 17.0 | 14.0 | 9.4 | 8.3 | 0.8 | 0.7 |
| Talgo SA | 16.4 | 12.4 | 10.7 | 8.4 | 1.6 | 1.2 |
| Westinghouse Air Brake Technologies Corporation | 16.7 | 14.6 | 16.1 | nm | 2.3 | nm |
| Greenbrier Companies, Inc. | 10.1 | 9.6 | 4.4 | 3.7 | 0.4 | 0.3 |
| Knorr-Bremse AG | 20.5 | 19.3 | 12.7 | 11.7 | 2.0 | 1.9 |
| Median | 17.0 | 14.3 | 11.7 | 8.4 | 1.5 | 0.9 |
| Schaltbau Holding AG | 16.6 | 12.1 | 12.4 | 9.5 | 0.6 | 0.6 |

Source: FactSet (share price as of 19 Feb. 2019), Pareto

Outlook for FY 2019e

Margin improvement should continue

Schaltbau management stated that they want to achieve a further noticeable EBIT operating margin improvement in the current year. Mid-term they want to return to historic levels. We translate this into a range between 7.0%-9.0%. This will not be reached in the current year 2019e. Our own estimate for FY 2021e amounted to 6.4%.

Exhibit 3: Schaltbau Holding group reached financial guidance for FY 2018

| Schaltbau Holding AG | FY '17 | FY '18 | FY '18e | FY '18 | Deviat | tion | Pare | to estimates | i |
|--|-----------|----------|---------|-----------|--------|-----------|-------|--------------|-------|
| EUR m | reported* | reported | Pareto | consens** | Pareto | consens** | 2019e | 2020e | 2021e |
| Mobile Transportation Techn. (MTT) | 333.4 | | 285.0 | | | | | | |
| Stationary Transportation Techn. (STT) | 114.3 | | 73.0 | | | | | | |
| Components (COM) | 146.3 | | 150.0 | | | | | | |
| Consolidation/Other | 0.0 | | 0.0 | | | | | | |
| Group Incoming orders | 594.0 | n.a. | 508.0 | n.a. | | | | | |
| Mobile Transportation Techn. (MTT) | 269.1 | | 285.0 | | | | | | |
| Stationary Transportation Techn. (STT) | 120.5 | | 74.0 | | | | | | |
| Components (COM) | 131.3 | | 138.0 | | | | | | |
| Consolidation/Other | -4.4 | | -5.0 | | | | | | |
| Group sales | 516.5 | 480.0 | 492.0 | 496.2 | -2.4% | -3.3% | 502.0 | 519.5 | 539.0 |
| Mobile Transportation Techn. (MTT) | -26.4 | | -8.8 | | | | | | |
| Stationary Transportation Techn. (STT) | -5.5 | | 0.5 | | | | | | |
| Components (COM) | 21.4 | | 24.1 | | | | | | |
| Consolidation/Other | -12.5 | | -12.3 | | | | | | |
| Group EBIT, reported | -23.0 | n.a. | 3.5 | | | | 24.4 | 30.6 | 34.7 |
| Group EBIT, operating | 2.4 | n.a. | 17.3 | | | | 24.4 | 30.6 | 34.7 |
| EPS, EUR | -8.03 | n.a. | -0.71 | | | | 1.21 | 1.66 | 1.97 |
| ANALYSIS GROUP | | | | | | | | | |
| Mobile Transportation Techn. (MTT) | n.m. | | n.m. | | | | | | |
| Stationary Transportation Techn. (STT) | n.m. | | 0.7% | | | | | | |
| Components (COM) | 16.3% | | 17.5% | | | | | | |
| Consolidation/Other | n.m. | | n.m. | | | | | | |
| Group EBIT reported-margin, % | n.m. | | 0.7% | | | | 4.9% | 5.9% | 6.4% |
| Group EBIT operating-margin, % | 0.5% | c. 3.0% | 3.5% | n.a. | | | 4.9% | 5.9% | 6.4% |
| Mobile Transportation Techn. (MTT) | 1.24 | | 1.00 | | | | | | |
| Stationary Transportation Techn. (STT) | 0.95 | | 0.99 | | | | | | |
| Components (COM) | 1.11 | | 1.09 | | | | | | |
| Book-to-bill-ratio Group | 1.15 | | 1.03 | | | | | | |

Source: Pareto Securities Research

Exhibit 4: Schaltbau Holding group: EBIT-bridge

| EUR m | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e | 2021e | 202 |
|---|------|-------|-------|-------|-------|-------|-------|-----|
| EBIT reported | 33.4 | -14.5 | -23.0 | -1.6 | 24.4 | 30.6 | 34.7 | 3 |
| one-off / extraordinary income (-) | | | | | | | | |
| Revaluation of Albatros S.L.U. (Spain) "Sepsa" | | -7.0 | | | | | | |
| Revaluation RDS (Poland) | -2.5 | | | | | | | |
| Income related to prior periods | -3.5 | -3.4 | | -7.1 | | | | |
| one-off / extraordinary expenses (+) | | | | | | | | |
| impairment at Alte Technologies S.L.U. (Spain) | | | | 8.2 | | | | |
| depreciation of other assets at Alte Techn. | | | | 1.9 | | | | |
| impairment at Schaltbau Transportation U.K. | | | | 2.3 | | | | |
| Revaluation: Schaltbau Sepsa | | | 24.2 | | | | | |
| Revaluation: Pintsch Bubenzer | | | 1.1 | | | | | |
| Expenses related to prior periods | 0.6 | 0.6 | 0.1 | 4.8 | | | | |
| IFRS 5 effect Sepsa real estate | | | | 3.8 | | | | |
| Further revaluation at Alte Technologies S.L.U. | | | | 3.0 | | | | |
| EBIT operating | 28.0 | -24.3 | 2.4 | 15.2 | 24.4 | 30.6 | 34.7 | 3 |
| EBIT operating - margin, % | 5.6% | n.m. | 0.5% | 3.2% | 4.9% | 5.9% | 6.4% | 6 |

Source: Company data, Pareto Securities Research

The EBIT operating margin 2018e of 3.2% is based on the like-for-like group sales figure of EUR 480m. As exhibit 4 shows, from today's point of view for the period of our estimates we expect no further restructuring costs or any other adjustments.



Exhibit 5: EBIT-margins by segment

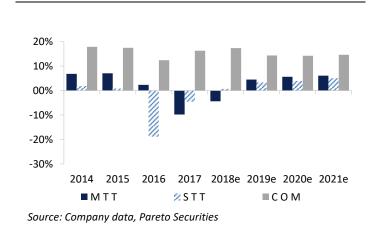


Exhibit 7: Schaltbau Holding group: Financial debt and maturities overview

| Financial instrument | Volume (EUR m) | date of maturity |
|--|----------------|------------------|
| Syndicated credit line (bridge financing) + credit amortisation rate | 32.5 | 28.02.2018 |
| Syndicated credit line | 100.0 | 31.12.2019 |
| Bonded loan | 28.5 | 30.06.2022 |
| Bonded loan | 41.5 | 30.06.2025 |
| Total amount Schaltbau group | 202.5 | |
| e: Company data, Pareto Securities Research | | |

Exhibit 4: Recovery of the EBIT-margin

Appendix

Exhibit 8: Schaltbau Holding group: Mobile Transportation Technology (MTT)

| EUR m | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e | 2021e | 2022e |
|------------------------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Incoming orders | 195.7 | 224.9 | 263.2 | 333.4 | 285.0 | 295.0 | 307.0 | 319.0 | 328.0 |
| yoy % | | 14.9% | 17.0% | 26.7% | -14.5% | 3.5% | 4.1% | 3.9% | 2.8% |
| Divisional sales | 186.0 | 225.5 | 222.9 | 269.1 | 275.0 | 290.0 | 302.0 | 313.0 | 323.0 |
| yoy % | | 21.2% | -1.2% | 20.7% | 2.2% | 5.5% | 4.1% | 3.6% | 3.2% |
| EBIT reported | 12.7 | 16.0 | 5.2 | -26.4 | -13.5 | 13.0 | 17.0 | 19.0 | 20.5 |
| Analysis | | | | | | | | | |
| Book-to-bill ratio (x) | 1.05 | 1.00 | 1.18 | 1.24 | 1.04 | 1.02 | 1.02 | 1.02 | 1.02 |
| EBIT reported - margin | 6.8% | 7.1% | 2.3% | -9.8% | -4.9% | 4.5% | 5.6% | 6.1% | 6.3% |

Source: Company data, Pareto Securities Research

Exhibit 9: Schaltbau Holding group: Stationary Transportation Technology (STT)

| EUR m | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e | 2021e | 2022e |
|------------------------|-------|-------|--------|--------|--------|-------|-------|-------|-------|
| Incoming orders | 138.9 | 155.5 | 157.8 | 114.3 | 73.0 | 77.5 | 81.0 | 84.0 | 87.0 |
| уоу % | | 11.9% | 1.5% | -27.6% | -36.1% | 6.2% | 4.5% | 3.7% | 3.6% |
| Divisional sales | 139.5 | 144.2 | 149.4 | 120.5 | 74.0 | 75.0 | 76.0 | 79.0 | 82.0 |
| yoy % | | 3.4% | 3.6% | -19.4% | -38.6% | 1.4% | 1.3% | 3.9% | 3.8% |
| EBIT reported | 2.5 | 1.2 | -28.1 | -5.5 | 0.5 | 2.5 | 3.0 | 4.0 | 4.2 |
| Analysis | | | | | | | | | |
| Book-to-bill ratio (x) | 1.00 | 1.08 | 1.06 | 0.95 | 0.99 | 1.03 | 1.07 | 1.06 | 1.06 |
| EBIT reported - margin | 1.8% | 0.8% | -18.8% | -4.6% | 0.7% | 3.3% | 3.9% | 5.1% | 5.1% |

Source: Company data, Pareto Securities Research

Exhibit 10: Schaltbau Holding group: Components (COM)

| EUR m | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e | 2021e | 2022e |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Incoming orders | 114.7 | 131.5 | 130.1 | 146.3 | 150.0 | 153.5 | 157.0 | 161.0 | 167.0 |
| yoy % | | 14.7% | -1.1% | 12.5% | 2.5% | 2.3% | 2.3% | 2.5% | 3.7% |
| Divisional sales | 105.6 | 133.9 | 138.1 | 131.3 | 138.0 | 143.0 | 147.5 | 153.5 | 160.0 |
| yoy % | | 26.7% | 3.2% | -5.0% | 5.1% | 3.6% | 3.1% | 4.1% | 4.2% |
| EBIT reported | 18.9 | 23.4 | 17.2 | 21.4 | 24.0 | 20.5 | 21.0 | 22.5 | 23.3 |
| Analysis | | | | | | | | | |
| Book-to-bill ratio (x) | 1.09 | 0.98 | 0.94 | 1.11 | 1.09 | 1.07 | 1.06 | 1.05 | 1.04 |
| EBIT reported - margin | 17.9% | 17.5% | 12.4% | 16.3% | 17.4% | 14.3% | 14.2% | 14.7% | 14.6% |

Source: Company data, Pareto Securities Research

| PROFIT & LOSS (fiscal year) (EURm) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
|---|-------------|-------------|-------------|-----------|-----------|-----------|-------------|-------------|
| Revenues | 391 | 430 | 502 | 509 | 517 | 480 | 502 | 520 |
| EBITDA | 45 | 38 | 46 | 16 | 20 | 25 | 34 | 40 |
| Depreciation & amortisation | (9) | (11) | (13) | (31) | (43) | (27) | (10) | (9) |
| EBIT | 36 | 40 | 35 | (11) | (25) | (1) | 25 | 31 |
| Net interest | (5) | (4) | (5) | (5) | (11) | (7) | (6) | (6) |
| Other financial items | - | - | - | - | - | - | - | - |
| Profit before taxes | 31 | 35 | 30 | (16) | (36) | (8) | 18 | 25 |
| Taxes | (6) | (6) | (8) | 4 | (14) | 2 | (5) | (7) |
| Minority interest | (3) | (4) | (6) | (4) | (2) | (1) | (2) | (3) |
| Net profit | 21 | 25 | 17 | (16) | (52) | (6) | 11 | 15 |
| EPS reported | 3.29 | 4.04 | 2.79 | (2.61) | (8.03) | (0.71) | 1.21 | 1.66 |
| EPS adjusted | 3.29 | 4.04 | 2.16 | (3.75) | (5.27) | 0.67 | 1.21 | 1.66 |
| DPS | - | 1.00 | 1.00 | - | - | - | - | 0.30 |
| BALANCE SHEET (EURm) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
| Tangible non current assets | 53 | 69 | 77 | 88 | 72 | 38 | 36 | 37 |
| Other non-current assets | 39 | 80 | 113 | 106 | 82 | 73 | 75 | 75 |
| Other current assets | 161 | 186 | 223 | 234 | 272 | 287 | 291 | 295 |
| Cash & equivalents | 14 | 26 | 32 | 30 | 25 | 40 | 50 | 65 |
| Total assets | 267 | 361 | 446 | 459 | 452 | 438 | 452 | 471 |
| Total equity | 89 | 113 | 125 | 107 | 71 | 114 | 125 | 139 |
| Interest-bearing non-current debt | 63 | 105 | 162 | 178 | 184 | 127 | 129 | 132 |
| Interest-bearing current debt | - | - | - | - | - | - | - | 101 |
| Other Debt | 82 | 104 | 122 | 134 | 160 | 161 | 162 | 163 |
| Total liabilites & equity | 267 | 361 | 446 | 459 | 452 | 438 | 452 | 471 |
| CASH FLOW (EURm) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
| Cash earnings | 27 | 42 | 59 | 37 | (24) | 15 | 26 | 30 |
| Change in working capital | 6 | (15) | (29) | (11) | 35 | (2) | (2) | (2) |
| Cash flow from investments | (17) | (38) | (49) | (18) | (34) | 17 | (10) | (9) |
| Cash flow from financing | (1) | (14) | (18) | (10) | 5 | (15) | (4) | (4) |
| Net cash flow | 6 | 11 | 7 | (2) | (5) | 15 | 10 | 15 |
| CAPITALIZATION & VALUATION (EURm) | 2013 | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
| Share price (EUR end) | 43.5 | 39.8 | 48.2 | 29.1 | 25.5 | 20.2 | 20.1 | 20.1 |
| Number of shares end period | 6 | 6 | 6 | 6 | 7 | 9 | 9 | g |
| Net interest bearing debt | 49 | 80 | 130 | 148 | 159 | 87 | 79 | 67 |
| Enterprise value | 342 | 344 | 460 | 360 | 358 | 297 | 288 | 276 |
| EV/Sales | 0.9 | 0.8 | 0.9 | 0.7 | 0.7 | 0.6 | 0.6 | 0.5 |
| EV/EBITDA | 7.6 | 9.0 | 9.9 | 22.1 | 17.8 | 11.8 | 8.5 | 7.0 |
| EV/EBIT | 9.5 | 8.7 | 13.0 | - | - | - | 11.7 | 8.9 |
| P/E reported | 13.2 | 9.8 | 17.3 | - | - | - | 16.6 | 12.1 |
| P/E adjusted | 13.2 | 9.8 | 22.3 | - | - | 30.0 | 16.6 | 12.1 |
| Р/В | 3.6 | 2.6 | 3.2 | 2.4 | 4.3 | 2.2 | 1.9 | 1.6 |
| FINANCIAL ANALYSIS & CREDIT METRICS | 2013 | 2014 | 2015 | 2016 | 2017 | 2018e | 2019e | 2020e |
| ROE adjusted (%) | 25.8 | 24.6 | 10.9 | - | - | 6.2 | 9.0 | 11.2 |
| Dividend yield (%) | - | 2.5 | 2.1 | - | - | - | - | 1.5 |
| | 11.4 | 8.9 | 9.3 | 3.2 | 3.9 | 5.3 | 6.8 | 7.6 |
| EBITDA margin (%) | | | | | | | | |
| EBITDA margin (%) EBIT margin (%) | 9.2 | 9.2 | 7.1 | - | - | - | 4.9 | 5.9 |
| EBITDA margin (%) EBIT margin (%) NIBD/EBITDA | 9.2 1.09 | 9.2 2.08 | 7.1 2.79 | - 9.08 | - 7.89 | - 3.45 | 4.9 2.33 | 5.9 1.69 |

Disclaimer and legal disclosures

Origin of the publication or report

This publication or report originates from Pareto Securities AS ("Pareto Securities"), reg. no. 956 632 374 (Norway), Pareto Securities AB, reg. no. 556206-8956 (Sweden) or Pareto Securities Limited, reg. no. 3994976, (United Kingdom) (together the Group Companies or the "Pareto Securities Group") acting through their common unit Pareto Securities Research. The Group Companies are supervised by the Financial Supervisory Authority of their respective home countries.

Content of the publication or report

This publication or report has been prepared solely by Pareto Securities Research.

Opinions or suggestions from Pareto Securities Research may deviate from recommendations or opinions presented by other departments or companies in the Pareto Securities Group. The reason may typically be the result of differing time horizons, methodologies, contexts or other factors.

Sponsored research

Please note that if this report is labelled as "sponsored research" on the front page, Pareto Securities has entered into an agreement with the company about the preparation of research reports and receives compensation from the company for this service. Sponsored research is prepared by the Research Department of Pareto Securities without any instruction rights by the company. Sponsored research is prepared by Pareto Securities to qualify as an acceptable minor non-monetary benefit according to the EU MiFID II Directive.

Basis and methods for assessment

Opinions and price targets are based on one or more methods of valuation, for instance cash flow analysis, use of multiples, behavioral technical analyses of underlying market movements in combination with considerations of the market situation and the time horizon. Key assumptions of forecasts, price targets and projections in research cited or reproduced appear in the research material from the named sources. The date of publication appears from the research material cited or reproduced. Opinions and estimates may be updated in subsequent versions of the publication or report, provided that the relevant company/issuer is treated anew in such later versions or the publication or report.

Pareto Securities Research may provide credit research with more specific price targets based on different valuation methods, including the analysis of key credit ratios and other factors describing the securities creditworthiness, peer group analysis of securities with similar creditworthiness and different DG -valuations. All descriptions of loan agreement structures and loan agreement features are obtained from sources which Pareto Securities Research believes to be reliable, but Pareto Securities Research does not represent or warrant their accuracy. Be aware that investors should go through the specific complete loan agreement before investing in any bonds and not base an investment decision based solely on information contained in this publication or report.

Pareto Securities Research has no fixed schedule for updating publications or reports.

Unless otherwise stated on the first page, the publication or report has not been reviewed by the issuer before dissemination. In instances where all or part of a report is presented to the issuer prior to publication, the purpose is to ensure that facts are correct.

Validity of the publication or report

All opinions and estimates in this publication or report are, regardless of source, given in good faith and may only be valid as of the stated date of this publication or report and are subject to change without notice.

No individual investment or tax advice

The publication or report is intended only to provide general and preliminary information to investors and shall not be construed as the basis for any investment decision. This publication or report has been prepared by Pareto Securities Research as general information for private use of investors to whom the publication or report has been distributed, but it is not intended as a personal recommendation of particular financial instruments or strategies and thus it does not provide individually tailored investment advice, and does not take into account the individual investor's particular financial situation, existing holdings or liabilities, investment knowledge and experience, investment objective and horizon or risk profile and preferences. The investor must particularly ensure the suitability of an investment as regards his/her financial discl situation and investmentobjectives. The investor bears the risk of losses in connection with an investment.

Before acting on any information in this publication or report, we recommend consulting your financial advisor.

The information contained in this publication or report does not constitute advice on the tax consequences of making any particular investment decision. Each investor shall make his/her own appraisal of the tax and other financial merits of his/her investment.

Sources

This publication or report may be based on or contain information, such as opinions, recommendations, estimates, price targets and valuations which emanate from Pareto Securities Research' analysts or representatives, publicly available information, information from other units or companies in the Group Companies, or other n amed sources.

To the extent this publication or report is based on or contains information emanating from other sources ("Other Sources") than Pareto Securities Research ("External Information"), Pareto Securities Research has deemed the Other Sources to be reliable but neither the companies in the Pareto Securities Group, others associated or affiliated with said companies nor any other person, guarantee the accuracy, adequacy or completeness of the External Information.

Ratings

| Equity ratings: | "Buy" | Pareto Securities Research expects this financial instrument's total return to exceed 10% over the next12 months |
|-----------------|--------|---|
| | "Hold" | Pareto Securities Research expects this financial instrument's total return to be between -10% and 10% over the next 12 months |
| | "Sell" | Pareto Securities Research expects this financial instrument's total return to be negative by more than 10% over the next 12 months |

Analysts Certification

The research analyst(s) whose name(s) appear on research reports prepared by Pareto Securities Research certify that: (i) all of the views expressed in the research report accurately reflect their personal views about the subject security or issuer, and (ii) no part of the research analysts' compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analysts in research reports that are prepared by Pareto Securities Research.

The research analysts whose names appears on research reports prepared by Pareto Securities Research received compensation that is based upon various factors including Pareto Securities' total revenues, a portion of which are generated by Pareto Securities' investment banking activities.

Limitation of liability

Pareto Securities Group or other associated and affiliated companies assume no liability as regards to any investment, divest ment or retention decision taken by the investor on the basis of this publication or report. In no event will entities of the Pareto Securities Group or other associated and affiliated companies be liable for direct, indirect or incidental, special or consequential damages resulting from the

Risk information

The risk of investing in certain financial instruments, including those mentioned in this document, is generally high, as their market value is exposed to a bt of different factors such as the operational and financial conditions of the relevant company, growth prospects, change in interest rates, the economic and political environment, foreign exchange rates, shifts in market sentiments etc. Where an investment or security is denominated in a different currency to the investor's currency of reference, changes in rates of exchange may have an adverse effect on the value, price or income of or from that investment to the investor. Past performance is not a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. When investing in individual shares, the investor may loss all or part of the investments.

Conflicts of interest

Companies in the Pareto Securities Group, affiliates or staff of companies in the Pareto Securities Group, may perform services for, solicit business from, make a market in, hold long or short positions in, or otherwise be interested in the investments (including derivatives) of any company mentioned in the publication or report.

In addition Pareto Securities Group, or affiliates, may from time to time have a broking, advisory or other relationship with a company which is the subject of or referred to in the relevant Research, including acting as that company's official or sponsoring broker and providing investment banking or other financial services. It is the policy of Pareto to seek to act as corporate adviser or broker to some of the companies which are covered by Pareto Securities Research. Accordingly companies covered in any Research may be the subject of marketing initiatives by the Investment Banking Department.

To limit possible conflicts of interest and counter the abuse of inside knowledge, the analysts of Pareto Securities Research are subject to internal rules on sound ethical conduct, the management of inside information, handling of unpublished research material, contact with other units of the Group Companies and personal account dealing. The internal rules have been prepared in accordance with applicable legislation and relevant industry standards. The object of the internal rules is for example to ensure that no analyst will abuse or cause others to abuse confidential information. It is the policy of Pareto Securities Research that no link exists between revenues from capital markets activities and individual analyst remuneration. The Group Companies are members of national stockbrokers' associations in each of the countries in which the Group Companies have their head of fices. Internal rules have been developed in accordance with recommendations issued by the stockbrokers associations. This material has been prepared following the Pareto Securities Conflict of Interest Policy.

The guidelines in the policy indude rules and measures aimed at achieving a sufficient degree of independence between various departments, business areas and sub-business areas within the Pareto Securities Group in order to, as far as possible, avoid conflicts of interest from arising between such departments, business areas and sub-business areas as well as their customers. One purpose of such measures is to restrict the flow of information between certain business areas and sub-business areas within the Pareto Securities Group, where conflicts of interest may arise and to safeguard the impartialness of the employees. For example, the Investment Banking departments and certain other departments included in the Pareto Securities Group are surrounded by arrangements, so-called Chinese Walls, to restrict the flows of sensitive information from such departments. The internal guidelines also include, without limitation, rules aimed at securing the impartialness of e.g., analysts working in the Pareto Securities Group rules concerning contacts with regard to the remuneration paid to such analysts, requirements with respect to the independence of analysts from other departments within the Pareto Securities Group rules concerning contacts with covered companies and rules concerning parsonal account trading carried out by analysts.

Distribution restriction

The securities referred to in this publication or report may not be eligible for sale in some jurisdictions and persons into whose possession this document comes should inform themselves about and observe any such restrictions. This publication or report is not intended for and must not be distributed to private customers in the US, or retail clients in the United Kingdom, as defined by the Financial Conduct Authority (FCA).

This research is only intended for and may only be distributed to institutional investors in the United States and U.S entities seeking more information about any of the issuers or securities discussed in this report should contact Pareto Securities Inc. at 150 East 52nd Street, New York, NY 10022, Tel. 212 829 4200.

Pareto Securities Inc. is a broker-dealer registered with the U.S. Securities and Exchange Commission and is a member of FINRA & SPC. U.S. To the extent required by applicable U.S. laws and regulations, Pareto Securities Inc. accepts responsibility for the contents of this publication. Investment products provided by or through Pareto Securities Inc. or Pareto Securities Inc. oregistered with or Securitie

Pareto Securities Research may have material conflicts of interest related to the production or distribution of this research report which, with regard to Pareto Securities Research, are disclosed herein.

Distribution in Singapore

Pareto Securities Pte Ltd holds a Capital Markets Services License is an exempt financial advisor under Financial Advisers Act, Chapter 110 ("FAA") of Singapore and a subsidiary of Pareto Securities AS.

This report is directed solely to persons who qualify as "accredited investors", "expert investors" and "institutional investors" as defined in section 4A(1) Securities and Futures Act, Chapter 289 ("SFA") of Singapore. This report is intended for general circulation amongst such investors and does not take into account the specific investment objectives, financial situation or particular person. You should seek advice from a financial adviser regarding the suitability of any product referred to in this report, taking into account your specific financial objectives, financial situation or particular needs before making a commitment to purchase any such product. Please contact Pareto Securities Pte Ltd, 16 Collyer Quay, # 27-02 Income at Raffles, Singapore 049318, at +65 6408 9800 in matters arising from, or in connection with this report.

Additional provisions on Recommendations distributed in the Canada

Canadian recipients of this research report are advised that this research report is not, and under no circumstances is it to be construed as an offer to sell or a solicitation of or an offer to buy any securities that may be described herein. This research report is not, and under no circumstances is it to be construed as, a prospectus, offering memorandum, advertisement or a public offering in Canada of such securities. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon this research report or the merits of any securities described or discussed herein and any representation to the contrary is an offence. Any securities described or discussed within this research report may only be distributed in Canada in accordance with applicable provincial and territorial securities laws. Any offer or sale in Canada of the securities described or discussed herein will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. Under no circumstances is the information contained herein to be construed as investment advice in any province or territory of Canada on the requirement to the needs of the recipient. Canadian recipients are advised that Pareto Securities AS, its affiliates and is authorized agents are not responsible for, nor do they accept, any liability whatsoever for any direct or consequential loss arising from any use of this research report or the information contained herein.

Distribution in United Kingdom

This publication is produced in accordance with COBS 12.3 as Non-Independent Research and approved under part IV artide 19 of The Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "FPO") by Pareto Securities Limited for communication in the United Kingdom only to investment professionals as that term is defined in article 19(5) of the FPO. This publication is issued for the benefit of persons who qualify as eligible counterparties or professional dients and should be made available only to such persons and is exempt from the restriction on financial promotion in s21 of the FIO. This publication is 121 of the FIO.

Copyright

This publication or report may not be mechanically duplicated, photocopied or otherwise reproduced, in full or in part, under applicable copyright laws. Any infringement of Pareto Securities Research's copyright can be pursued legally whereby the infringer will be held liable for any and all losses and expenses incurred by the infringement.

Appendix A

Disclosure requirements pursuant to the Norwegian Securities Trading Regulations section 3-10 (2) and section 3-11 (1), letters a-b

The below list shows companies where Pareto Securities AS - together with affiliated companies and/or persons – own a portion of the shares exceeding 5% of the total share capital in any company where a recommendation has been produced or distributed by Pareto Securities AS.

| Companies | No. of shares Hol | dings in % | Companies | No. of shares Hol | dings in % |
|---------------------|-------------------|------------|---------------------------|-------------------|------------|
| Helgeland Sparebank | 2,008,203 | 9.62% | SpareBank 1Østfold Akersł | 1,139,560 | 9.20% |
| Pareto Bank ASA | 10,842,964 | 18.50% | Sparebanken Vest | 4,506,060 | 7.63% |

Pareto Securities AS or its affiliates own as determined in accordance with Section 13(d) of the US Exchange Act, 1% or moreof the equity securities of :

| Companies | No. of shares Ho | ldings in % | Companies | No. of shares Ho | ldings in % |
|-----------------------|------------------|-------------|---------------------------|------------------|-------------|
| Helgeland Sparebank | 2,008,203 | 9.62% | SpareBank 1SM N | 1,879,292 | 1.45% |
| NHST Media Group AS | 21,475 | 1.85% | SpareBank 1Østfold Akersl | 1,139,560 | 9.20% |
| Pareto Bank ASA | 10,842,964 | 18.50% | Sparebanken Møre | 311,739 | 3.15% |
| Selvaag Bolig A SA | 2,174,147 | 2.32% | Sparebanken Sør | 460,589 | 2.94% |
| SpareBank 1BV | 1,557,140 | 2.48% | Sparebanken Vest | 4,506,060 | 7.63% |
| SpareBank 1Nord-Norge | 1,045,659 | 1.04% | | | |

Pareto Securities AS may hold financial instruments in companies where a recommendation has been produced or distributed by Pareto Securities AS in connection with rendering investment services, including Market Making.

Please find below an overview of material interests in shares held by employees in Pareto Securities AS, in companies where arecommendation has been produced or distributed by Pareto Securities AS "By material interest" means holdings exceeding a value of NOK 50 000.

| Company | Analyst holdings* | Total holdings | Company | A nalyst holdings* | Total holdings | Company | A nalyst holdings* | Total holdings |
|-----------------------|----------------------|-------------------|------------------------|-----------------------|-------------------|-----------------------|-----------------------|-------------------|
| AF Gruppen | 0 | 1,675 | Helgeland Sparebank | 0 | 1,700 | Protector Forsikring | 0 | 14,685 |
| Aker | 0 | 682 | Höegh LNG | 0 | 7,203 | REC Silicon | 0 | 157,742 |
| AkerBP | 0 | 5,050 | Jæren Sparebank | 0 | 500 | SalMar | 0 | 130 |
| Aker Solutions | 0 | 1,825 | Komplett Bank | 0 | 99,934 | Sandnes Sparebank | 0 | 17,282 |
| AKVA Group | 0 | 1,500 | Kongsberg Gruppen | 0 | 5,901 | Scatec Solar | 0 | 35,635 |
| Archer | 0 | 72,770 | KWS Saat | 15 | 15 | Seadrill | 0 | 8,661 |
| Atea | 0 | 450 | Lerøy Seafood | 0 | 33,795 | Selvaag Bolig | 0 | 5,000 |
| Austevoll Seafood | 0 | 5,780 | Magseis Fairfield | 0 | 12,879 | SpareBank 1BV | 0 | 17,700 |
| A vance Gas | 0 | 4,595 | Monobank | 0 | 1,355,000 | SpareBank 1Nord-Norge | 0 | 30,000 |
| Axactor | 0 | 15,933 | Mowi | 0 | 1,864 | SpareBank 1SM N | 0 | 16,590 |
| Bonheur | 0 | 46,709 | Nordic Semiconductor | 0 | 6,000 | SpareBank 1SR-Bank | 0 | 34,187 |
| Borr Drilling | 0 | 4,415 | Norsk Hydro | 0 | 113,795 | SpareBank 1Østlandet | 0 | 4,041 |
| BWLPG | 0 | 5,569 | Northern Drilling | 0 | 6,060 | Sparebanken M øre | 0 | 6,550 |
| DNB | 0 | 35,072 | Norwegian Air Shuttle | 0 | 6,536 | Sparebanken Sør | 0 | 43,280 |
| DNO | 0 | 29,377 | Norwegian Property | 0 | 150,000 | Sparebanken Øst | 0 | 3,000 |
| Entra | 0 | 14,362 | Ocean Yield | 0 | 32,967 | Storebrand | 0 | 5,005 |
| Equinor | 0 | 10,101 | Odfjell Drilling | 0 | 8,649 | Subsea 7 | 0 | 7,484 |
| Europris | 0 | 12,150 | Orkla | 0 | 24,026 | Telenor | 0 | 2,075 |
| FlexLNG | 0 | 11,825 | Panoro Energy | 0 | 5,670 | TGS-NOPEC | 0 | 2,050 |
| Frontline | 0 | 13,793 | Pareto Bank | 0 | 967,091 | XXL | 0 | 10,696 |
| Gjensidige Forsikring | 0 | 8,623 | Petroleum Geo-Services | 0 | 60,134 | Yara International | 0 | 19,786 |
| Golden Ocean Group | 0 | 1,824 | Prosafe | 0 | 5,984 | Zenterio | 0 | 78,865 |
| Grieg Seafood | 0 | 770 | | | | | | |

This overview is updated monthly (last updated 19.02.2019).

 $^* Analyst \ holdings refers to \ positions \ held \ by \ the \ Pareto \ Securities \ AS \ analyst \ covering \ the \ company.$

Appendix B

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11, letters e-f, ref the Securities Trading Act Section 3-10

Overview over issuers of financial instruments where Pareto Securities AS have prepared or distributed investment recommendation, where Pareto Securities AS have been lead manager/co-lead manager or have rendered publicly known not immaterial investment banking services over the previous 12 months:

| Africa Energy | Floatel | Okea AS |
|---|--|--|
| Akva Group | Fortum | OkeanisEco Tankers |
| APC Forsikringsmæglere A/S | GfinityPlc | Pandion Energy |
| Arnarlax | Gulf Keystone Petroleum | Panoro Energy |
| At lantic Sapphire AS | HerthaBSCGmbH | ParetoBank |
| Avida Holding AB | Hunter Group | PetroMatadLimited |
| Bank Norwegian | Ice Group | Petroleum Geo-Services |
| Bluewater Holding | Instabank | Pioneer Public Properties Finland Oy |
| BorealisFinance | Jactel AS | Point Resources AS |
| Borr Drilling Limited | Klaveness Ship Holding | Quant AB |
| BradoAB | Lundin Petroleum | Rødovre Port Holding A/S |
| Camanchaca | Magseis | Sand Hill Petroleum |
| | | |
| DNOASA | McDermott International | SAS |
| DNOASA DOFASA | McDermott International Monobank ASA | SAS Scatec Solar |
| | | |
| DOFASA | Monobank ASA | Scatec Solar |
| DOFASA Dof Subsea AS | Monobank ASA Nemaska Lithium | Scatec Solar Scorpio Tankers |
| DOFASA Dof Subsea AS Echo Energy | Monobank ASA Nemaska Lithium NGEx Resources | Scatec Solar Scorpio Tankers Shamaran |
| DOFASA Dof Subsea AS Echo Energy Eco Atlantic Oil and Gas | Monobank ASA Nemaska Lithium NGEx Resources Northern Drilling | Scatec Solar Scorpio Tankers Shamaran Sparebank 1 <i>0</i> stlandet |
| DOFASA Dof Subsea AS Echo Energy Eco Atlantic Oll and Gas Eidesvik Offshore | Monobank ASA Nemaska Lithium NGEx Resources Northern Drilling Northmill Group AB | Scatec Solar Scorpio Tankers Shamaran Sparebank 1Øst landet SpareBank 1Buskerud-Vest fold |
| DOFASA Dof Subsea AS Echo Energy Eco Atlantic Oll and Gas Eidesvik Offshore Eland Oll & Gas | Monobank ASA Nemaska Lithium NGEx Resources Northern Drilling Northmill Group AB Norwegian Air Shuttle | Scatec Solar Scorpio Tankers Shamaran Sparebank 1Øst landet SpareBank 1Buskerud-Vest fold Sparebanken Vest |
| DOFASA Dof Subsea AS Echo Energy Eco Atlantic Oil and Gas Eidesvik Offshore Eland Oil & Gas FFS Bidco | Monobank ASA Nemaska Lithium NGEx Resources Northern Drilling Northmill Group AB Norwegian Air Shuttle Ocean Yield | Scatec Solar Scorpio Tankers Shamaran Sparebank 1Østlandet SpareBank 1Buskerud-Vestfold Sparebanken Vest Union Martime Limited |

This overview is updated monthly (this overview is for the period 31.01.2018 – 31.01.2019).

Appendix C

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11(4)

Distribution of recommendations Recommendation

| Buy | 68% |
|------|-----|
| Hold | 27% |
| Sell | 4% |

| Recommendation | % distribution |
|----------------|----------------|
| Buy | 86% |
| Hold | 14 % |
| Sell | 0% |

* Companies under coverage with which Pareto Securities Group has on-going or completed public investment banking services in the previous 12 months This overview is updated monthly (last updated 19.02.2019).

% distribution

Appendix D

This section applies to research reports prepared by Pareto Securities AB.

Disclosure of positions in financial instruments

The beneficial holding of the Pareto Group is 1 % or more of the total share capital of the following companies included in Pareto Securities AB's research coverage universe: None

The Pareto Group has material holdings of other financial instruments than shares issued by the following companies induded in Pareto Securities AB's research coverage universe: None

Disclosure of assignments and mandates

Overview over issuers of financial instruments where Pareto Securities AB has prepared or distributed investment recommendation, where Pareto Securities AB has been lead manager or co-lead manager or has rendered publicly known not immaterial investment banking services over the previous twelve months:

| Azelio | Jetpak Top Holding AB | Sedana M edical | Vostok New Ventures |
|--|---|--|-----------------------|
| Green Landscaping Holding | Magnolia Bostad | ShaM aran Petroleum | |
| Members of the Pareto Group provide market making or c | ther liquidity providing services to the following companies in | duded in Pareto Securities AB's resear | ch coverage universe: |

| Cavotec | Saltängen Property Invest | Sed ana M edical | Tethys Oil |
|--------------------------|---------------------------|---------------------|-------------------------|
| Cibus Nordic Real Estate | SciBase Holding | ShaM aran Petroleum | Vostok Emerging Finance |
| Isofol Medical | | | |

Members of the Pareto Group have entered into agreements concerning the inclusion of the company in question in Pareto Securities AB's research coverage universe with the following companies: None *This overview is updated monthly (last updated 15.02.2019).*

Appendix E

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11, letter d, ref the Securities Trading Act Section 3-10

Designated Sponsor

Pareto Securities acts as a designated sponsor for the following companies, including the provision of bid and ask offers. Therefore, we regularly possess shares of the company in our proprietary trading books. Pareto Securities receives a commission from the company for the provision of the designated sponsor services.

| 2G Energy * | Freenet | Merkur Bank | SCOUT24 |
|--------------------------------|-----------------------------|----------------------|-------------------------|
| Aixtron * | Gesco * | MLP* | Siemens Healthineers AG |
| Baywa | GFT Technologies * | MOBOTIX AG | SMT Scharf AG * |
| Biotest * | Gigaset * | OVB Holding AG | Surteco Group * |
| Brenntag | Heidelberg Pharma * | Procredit Holding * | Syzygy AG * |
| CORESTATE Capital Holding S.A. | Hypoport AG | PSI SOFTWARE AG * | TAKKT AG |
| Demire | Intershop Communications AG | PWO* | Vapiano |
| Epigenomics AG* | Logwin * | RIB Software * | va-Q-tec * |
| Euromicron AG * | Manz AG * | S&T AG * | Viscom* |
| Eyemaxx Real Estate | MAX Automation SE * | Schaltbau Holding AG | windeln.de |

* The designated sponsor services include a contractually agreed provision of research services.

Appendix F

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11, letter g, ref the Securities Trading Act Section 3-10

Sponsored Research

Pareto Securities has entered into an agreement with these companies about the preparation of research reports and-in return - receives compensation.

| AdlerModemaerkte | Daldrup & Söhne | Intershop Communications AG | OVB Holding AG |
|------------------|---------------------|-----------------------------|----------------------|
| Baywa | Eyemaxx Real Estate | Merkur Bank | Schaltbau Holding AG |
| BB Biotech | First Sensor | MOBOTIX AG | Siegfried Holding AG |
| comdirect | Hypoport AG | OHB SE | Vapiano |

This overview is updated monthly (last updated 19.02.2019).