

# **PSI AG**

Germany / Software Primary exchange: Frankfurt Bloomberg: PSAN GR ISIN: DE000A0Z1JH9

Q3 results

RATING PRICE TARGET

ADD € 19.00

Return Potential 17.3% Risk Rating Medium

## **NEW PRODUCTS CONTRIBUTE TO RECORD ORDER INTAKE**

PSI's Q3/18 order intake rose 13.9% to €41m (Q3/17: €36m) and was up 19.7% after nine months at a record €176m (9M/17: €147m). These numbers were helped by sales of new products in growth areas such as Industrie 4.0, intelligent integration of electromobility into local transmission networks, grid configuration for the future structure of electricity generation, and mathematical processes which simulate energy networks under sector coupling scenarios. Customer acceptance of these new products makes us optimistic that PSI's "Vision 2022" of sales of €235m and a 10-13% EBIT margin can be achieved in full. We have raised our 2022 sales forecast to €235m (previously: €228.2m), while leaving our 2022EBIT margin forecast unchanged at 10%. We now see fair value for the PSI share at €19.0 (previously: €18.0). We maintain our Add ecommendation.

Q3/18 EBIT rose 54% PSI's Q3 figures showed a 3.3% increase in sales to €47.0m (Q3/17: €45.5m; FBe: €49.0m), while EBIT climbed 54.0% to €3.9m (Q3/17: €2.5m; FBe: €3.4m). The jump in EBIT (see figure 1 overleaf) was mainly attributable to a widening of the EBIT margin in the Energy Management segment to 7.7% in Q3/18 (Q3/17: 3.0%). At the nine months stage this comparison was 6.0% vs. 4.4%. The order intake rose 13.9% to €41m in Q3/18 (Q3/17: €36m) and was 19.7% ahead after nine months at a record €176m (9M/17: €147m). PSI made the order numbers public on 10 October i.e. three weeks ahead of the Q3 report, and also indicated that the strong trend is continuing - a point reiterated in Wednesday's Q3 report.

Q3/18 Energy Management EBIT margin more than doubled Q3/18 sales in the Energy Management segment (which since Q1/18 houses the energy grids, energy trading, public transportation and Southeast Asia businesses) fell 1.7% to €22.0m (Q3/17: €22.4m). EBIT came in at €1.8m equivalent to a margin of 7.7% (Q3/17: €0.7m; a margin of 3.0%).

## **FINANCIAL HISTORY & PROJECTIONS**

	2015	2016	2017	2018E	2019E	2020E
Revenue (€m)	183.68	176.85	186.10	198.86	205.82	213.06
Y-o-y growth	4.7%	-3.7%	5.2%	6.9%	3.5%	3.5%
EBIT (€m)	11.11	11.84	13.37	15.20	16.93	18.76
EBIT margin	6.0%	6.7%	7.2%	7.6%	8.2%	8.8%
Net income (€m)	7.46	8.55	9.50	10.24	11.74	13.39
EPS (diluted) (€)	0.48	0.55	0.61	0.66	0.75	0.86
DPS (€)	0.21	0.22	0.23	0.24	0.25	0.28
FCF (€m)	11.78	10.42	-2.92	9.42	11.14	12.99
Net gearing	15.9%	12.0%	18.7%	11.4%	2.8%	-6.0%
Liquid assets (€m)	38.83	43.01	38.13	41.07	48.44	57.51

## RISKS

Risks include a renewed downturn in the prices of oil, gas and steel.

## **COMPANY PROFILE**

PSI makes software control systems, primarily for energy, utility companies and metals producers. Customers also include manufacturers and the operators of transportation networks. The company's control system products are widespread in its core German market.

MARKET DATA	As of 02 Nov 2018
Closing Price	€ 16.20
Shares outstanding	15.70m
Market Capitalisation	€ 254.30m
52-week Range	€ 14.50 / 20.30
Avg. Volume (12 Months)	9,980

Multiples	2017	2018E	2019E
P/E	26.6	24.7	21.6
EV/Sales	1.5	1.4	1.3
EV/EBIT	20.2	17.8	15.9
Div. Yield	1.4%	1.5%	1.5%

## STOCK OVERVIEW



COMPANY DATA	As of 30 Sep 2018
Liquid Assets	€ 35.47m
Current Assets	€ 119.03m
Intangible Assets	€ 57.50m
Total Assets	€ 197.03m
Current Liabilities	€ 59.45m
Shareholders' Equity	€ 82.98m

## **SHAREHOLDERS**

Innogy SE	17.8%
Harvinder Singh	8.1%
Free float	74.1%

At the nine months stage sales were up 7.3% at €68.9m (9M/17: €64.3m) while EBIT was €4.2m equivalent to a margin of 6.0% (9M/17: €6.3m;a margin of 4.4%).

Figure 1: Q3/18 results versus our forecasts

€ 000s	Q3 18A	Q3 18E	Δ Q3 18A vs. vs. Q3 18E	Q3 17A	Δ Q3 18A vs. vs. Q3 17A
External sales	46,984	49,000	-4.1%	45,484	3.3%
by division:					
Energy Management	22,000	24,500	-10.2%	22,379	-1.7%
Production Management	24,984	24,500	2.0%	23,105	8.1%
EBIT	3,852	3,400	13.3%	2,502	54.0%
margin	7.7%	6.5%		5.1%	
by division:					
Energy Management	1,766	1,500	17.7%	734	140.6%
margin	7.7%	5.9%		3.0%	
Production Management	2,316	2,200	5.3%	2,117	9.4%
margin	8.5%	8.2%		8.4%	
Reconciliation	-230	-300		-349	
EPS (€)	0.16	0.14	13.3%	0.10	60.0%

Source: PSI AG; First Berlin Equity Research estimates

Energy Management order intake rose 50% during first nine months The order intake in the Energy Management segment rose 50% during the first nine months driven mainly by very strong business with electricity and gas network operators in Germany and neighbouring countries. Germany's ongoing exit from coal is leading to higher investment in the domestic gas network. Meanwhile, PSI's electrical energy business is benefiting from the introduction of recently developed new products - for example for smart microgrids, and the artificial intelligence-based security assessment and system optimisation system which functions as a kind of power grid autopilot. Management is also of the view that the so-called "photo years" are diminishing in importance. In Germany the government energy market regulator designates every fourth year as a photo year. The volume of investments undertaken during the photo years plays a role in determining the tariffs the utilities are allowed to set. In the past this system has led to a concentration of investment during photo years. For electrical energy the most recent photo year was 2016. Because 2018 is midway between two photo years, investment was expected to be relatively subdued this year. Management believes that regulatory incentives are becoming more nuanced, and that this partly explains the strong increase in Energy Management's order intake.

Hamburger Hochbahn AG order is a key electrification reference contract The Energy Management segment's public transport business is also experiencing an order boom. This has been prompted by increased government spending on public transport to improve urban air quality and a general trend towards electrification. PSI's recently announced (15 October) order for a depot management system for electric buses from Hamburger Hochbahn AG is a key reference contract in this area.

**Southeast Asian subsidiary also back in the black** PSI's subsidiary in Southeast Asia which has been the group's "problem child" for several years reported a 23% increase in sales during the first nine months and also reached positive EBIT. The improvement was due to the positive impact of higher energy prices on local investment, relaxation of political tensions and also the restructuring work carried out by PSI.

**Oil and gas order intake expected to recover in 2018** The order intake in the oil and gas business has been subdued so far this year, but management expect the recovery in hydrocarbons prices to spark increasing ordering activity in 2019 and 2020.

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Production Management sales down 5% after 9M due to tariffs impact on PSImetals Sales at the Production Management segment (metals, industry, raw materials, logistics) climbed 8.1% to €25.0m in Q3/18 (Q3/17: €23.1m). EBIT was €2.3m equivalent to a margin of 8.5% (Q3/17: €2.1m; a margin of 8.4%). At the nine months stage sales were 5.6% higher at €72.6m (9M/17: €68.8m) while EBIT was €6.6m equivalent to a margin of 8.3% (9M/17: €6.3m; a margin of 8.5%). The order intake fell 5% during the first nine months due mainly to the negative impact of the new tariffs on the segment's largest business unit, PSImetals. The new tariffs have delayed customer orders but are expected to create business momentum of their own in the medium term (logistics, smaller volumes, more variants, replacement of imports).

Automotive business benefiting from Industrie 4.0 and electromobility trends The automotive business within the industry subsegment continues to benefit from the adoption of Industrie 4.0 manufacturing techniques and the trend towards electrification. In July a major automotive manufacturer successfully commissioned a pilot plant using PSI's automotive factory software suite on the basis of swarm production. Sales to manufacturers of electric vehicles and components are also gathering pace. Meanwhile, the logistics subsegment won a further major airport order (for baggage handling at Hamburg Airport).

Balance sheet remains strong Cashflow from operations before investment in working capital came in at €4.7m in Q3/18 (Q3/17: €3.5m). h Q3/18 working capital consumed €2.3m whereas in Q3/17 €4.0m was released. Net operating cashflow came in at €2.2m (Q3/17: €6.3m). Cashflow from investing activities amounted to €-1.9m (Q3/17: €-0.7m). The acquisition of the Potsdam-based company Moveo Software GmbH (planning, disposition and invoicing of transportation operations) for €1.5m accounted for most of the increase. Free cashflow was €0.3m (Q3/17: €5.6m). Cash fell €3.3m to €35.4m during Q3/18 (Q3/17: cash rose €5.2m to €39.8m). Net debt including pension liabilities amounted to €15.6m at the end of Q3/18 and net gearing including pension liabilities was 18.8% (Q3/17: €14.4m and 19.5%).

Full year 2018 order intake now expected in €210-215m range (2017: €190m) In the Q3 report, PSI's management wrote that they now expect a full year order intake of €210-215m. This figure is "significantly" above the original internal budget for 2018. Management also stated that they will assess the outlook for 2019 and then formulate guidance. The Q3 report further states: "Based on the order backlog, the strong pipeline and the company's development, it is clear that the sales growth targets will be raised." Following discussions with management, we think it unlikely that 2019 guidance will be published before the end of this year. It is more probable that this will be published in the annual report in March as usual. However, we gather from our discussions that the "PSI Vision 2022" targets first unveiled in Q1 2018 (see our note of 3 April) are likely to be revisited. As figure 2 shows, "PSI Vision 2022" currently stipulates sales of €235m and an EBIT margin of 10-13%. Most of the growth is expected to derive from industrialised rather than from emerging markets. The €18.0 per share valuation in our notes of 3 April, 3 May and 31 July was based on the assumption of sales of €228.2m and an EBIT margin of 10.0% in 2022.

Figure 2: PSI Vision 2022

	PSI Vision 2022					
	2017A	2022 target	CAGR			
Sales (€m)	186.1	235.0	4.8%			
Employees	1,665	2,000	3.7%			
EBIT margin 1	7.20%	10-13%				

Source: PSI

Our 2022 sales forecast now €235m (previously: €2282m); EBIT margin projection unchanged at 10% In this study we maintain our 10% margin forecast for 2022 but raise the sales forecast to €235m.

As we pointed out in our April note, the 2022 margin target incorporates R&D expenditure equivalent to 8% of sales. The 2017 figure was 9.9%. Development of a common software platform has been one of the largest components of R&D expenditure at PSI in recent years. This work will be completed by 2022 - hence the scope for a reduction in R&D spending relative to sales. The 2017 EBIT margin was 7.2%. Writedowns on old projects of €1m reduced this figure by 50 basis points. Adding to this the 190 basis points in margin saved through the end of the software platform harmonisation programme indicates that there should be scope to take the EBIT margin to 9.6% without any further operational improvements. We believe that PSI will be able to close the 40 basis point gap between 9.6% and 10.0% through further cost reductions stemming from the platform harmonisation programme and the introduction of higher margin products developed through its R&D programme.

PSI's revenues grew at a CAGR of 0.6% over the five year period 2012-2017. The 2017 annual report notes that the decline in the oil price, embargos and political instability (mainly affecting emerging markets) cost the company around €20m in sales during 2012-2017. Adding back the €20m lost to these factors, growth would still have been only a relatively modest 2.6%. The current "Vision 2022" sales target of €235m implies a sales CAGR of 4.8%, whereas the €228.2m forecast in our notes of April, May and July implied only 4.2%.

Investments in new products paying off PSI has made substantial investments in a number of promising growth areas in recent years. Work on the Industrie 4.0 theme includes the development of platforms for the replacement of production lines by swarm manufacturing concepts on the basis of intelligent and self-guiding workpieces. The company has also been working on the intelligent integration of electromobility into local transmission networks, grid configuration for the future structure of electricity generation, and mathematical processes which simulate energy networks under sector coupling scenarios. The nine months order intake demonstrates acceptance of these new products and suggests potential for an acceleration in PSI's organic sales growth in coming years. On this basis, we now raise our 2022 sales forecast to €235m in line with the current "Vision 22" target. We leave our 2022 margin target unchanged at 10.0%.

We raise price target to €19.0 (previously: €18.0),maintain Add recommendation As figure 3 shows, our near-term forecasts to 2019 are very little changed. 2020 forecasts are included for the first time. We do not show previous divisional forecasts because of the changes to the company's divisional structure from Q1/18. Following the changes to our forecasts beyond 2019, we now see fair value for the PSI share at €19.0 (previously: €18.0). We maintain our Add recommendation.

Figure 3: Changes to our forecasts

5 November 2018

€m	2018 NEW	2018 OLD	Δ%	2019 NEW	2019 OLD	Δ%	2020 NEW
External sales	198.86	198.86	0.0%	205.82	205.82	0.0%	213.06
by division:							
Energy Management	96.22	n.a.	n.a.	99.08	n.a.	n.a.	102.05
Production Management	102.63	n.a.	n.a.	106.74	n.a.	n.a.	111.01
Total EBIT	15.20	15.20	0.0%	16.93	16.93	0.0%	18.76
margin (%)	7.6%	7.6%		8.2%	8.2%		8.8%
by division:							
Energy Management	6.50	n.a.	n.a.	6.99	n.a.	n.a.	7.80
margin (%)	6.5%	n.a.	n.a.	6.8%	n.a.	n.a.	7.4%
Production Management	9.84	n.a.	n.a.	11.12	n.a.	n.a.	12.18
margin (%)	8.8%	n.a.	n.a.	9.6%	n.a.	n.a.	10.1%
Reconciliation	-1.14	n.a.	n.a.	-1.18	n.a.	n.a.	-1.22
EPS (€)	0.66	0.66	0.0%	0.75	0.75	0.0%	0.86

Source: First Berlin Equity Research estimates

Figure 4: Valuation model

€000s	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Net sales	198,855	205,818	213,060	223,713	235,006	246,756	259,094	272,049
NOPLAT	10,640	11,850	13,130	14,667	16,377	17,623	18,504	19,429
+ Depreciation and amortisation	4,971	5,145	5,327	5,593	5,875	6,169	6,477	6,801
= net operating cash flow	15,612	16,995	18,456	20,260	22,252	23,792	24,981	26,230
- total investments (Capex and WC)	-6,129	-5,834	-5,804	-5,348	-5,515	-8,355	-8,773	-9,211
Capital expenditure	-5,916	-5,081	-6,087	-6,488	-6,815	-7,379	-7,748	-8,136
working capital	-213	-752	283	1,139	1,299	-976	-1,025	-1,076
= Free cash flow (FCF)	9,483	11,162	12,652	14,911	16,736	15,437	16,208	17,019
PV of FCF's	9,371	10,246	10,790	11,813	12,317	10,553	10,294	10,041

Fair value per share

-241.40

131.86

51.49

31.86

22.98

17.92

14.64

12.35

3.5%

625.75

78.96

41.80

28.26

21.24

16.96

14.06

11.98

150.16

58.20

35.77 25.64

19.88

16.16

13.57

11.65

€000s	
PVs of FCFs explicit period (2018-30)*	134,559
PVs of FCFs in terminal period	175,869
Enterprise Value (EV)	310,428
(Net cash)/net debt	15,613
Shareholder value	294,815

		Sensitivity analysis  19.00  Terminal growth rate (%)  7.65%  9.5%  3.65%  45.32  53.21  65.89  89.64  3.0%  4.65%  32.11  35.52  40.23  47.12  30.0%  656%  24.62  26.40  28.67  31.65						
Value per share (€)	19.00		•	·				
						Terminal gro	owth rate (%)	į
WACC	7.65%			1.0%	1.5%	2.0%	2.5%	
Cost of equity	9.5%		3.65%	45.32	53.21	65.89	89.64	
Pre-tax cost of debt	3.0%		4.65%	32.11	35.52	40.23	47.12	
Normal tax rate	30.0%	O	5.65%	24.62	26.40	28.67	31.65	Į
After-tax cost of debt	2.1%	WAC	6.65%	19.82	20.85	22.10	23.66	
Share of equity	75.0%	≥	7.65%	16.48	17.12	17.88	19.00	
Share of debt	25.0%		8.65%	14.03	14.45	14.94	15.50	
Terminal growth	2.5%		9.65%	12.16	12.45	12.77	13.14	
			10.65%	10.69	10.89	11.12	11.37	

\*for layout purposes the model shows numbers only to 2025 but runs until 2030

Source: First Berlin Equity Research estimates

## **INCOME STATEMENT**

All figures in €'000	2015	2016	2017	2018E	2019E	2020E
Revenues	183,682	176,854	186,096	198,855	205,818	213,060
Cost of materials	-31,596	-26,210	-27,228	-28,834	-29,844	-30,894
Gross profit	152,086	150,644	158,868	170,021	175,974	182,166
Total personnel costs	-106,820	-109,269	-112,343	-117,324	-121,433	-125,705
Net other operating costs	-29,871	-25,246	-28,809	-32,525	-32,468	-32,377
Depreciation & amortisation	-4,286	-4,294	-4,351	-4,971	-5,145	-5,327
EBIT	11,109	11,835	13,365	15,201	16,928	18,757
Net interest	-1,811	-749	-983	-804	-401	117
Associates	140	147	142	160	168	176
Pretax profit	9,438	11,233	12,524	14,556	16,696	19,050
Income taxes	-1,979	-2,682	-3,027	-4,319	-4,958	-5,662
Net income / loss	7,459	8,551	9,497	10,237	11,738	13,388
EPS (€)	0.48	0.55	0.61	0.66	0.75	0.86
EBITDA	15,395	16,129	17,716	20,172	22,074	24,084
Ratios						
Gross margin	82.8%	85.2%	85.4%	85.5%	85.5%	85.5%
EBIT margin	6.0%	6.7%	7.2%	7.6%	8.2%	8.8%
EBITDA margin	8.4%	9.1%	9.5%	10.1%	10.7%	11.3%
Net income margin	4.1%	4.8%	5.1%	5.1%	5.7%	6.3%
Tax rate	21.0%	23.9%	24.2%	29.7%	29.7%	29.7%
Expenses as % of output						
Personnel	-58.2%	-61.8%	-60.4%	-59.0%	-59.0%	-59.0%
Net other operating income/expenses	-16.3%	-14.3%	-15.5%	-16.4%	-15.8%	-15.2%
Depreciation & amortisation	-2.3%	-2.4%	-2.3%	-2.5%	-2.5%	-2.5%
Y-o-y growth						
Total revenues	4.7%	-3.7%	5.2%	6.9%	3.5%	3.5%
EBIT	45.1%	6.5%	12.9%	13.7%	11.4%	10.8%
Net income / loss	82.0%	14.6%	11.1%	7.8%	14.7%	14.1%



All figures in €'000	2015	2016	2017	2018E	2019E	2020E
Assets						
Current assets, total	120,742	120,710	116,463	123,210	133,455	143,380
Cash and cash equivalents	38,831	43,008	38,132	41,073	48,441	57,506
Trade accounts and notes receivables	36,169	27,466	31,611	29,828	30,873	31,959
Inventories	4,184	6,421	7,823	8,352	8,644	8,949
Receivables relating to long term contracts	36,366	38,184	33,118	37,782	39,105	38,351
Other current assets	5,192	5,631	5,779	6,175	6,391	6,616
Non-current assets, total	78,780	78,717	77,547	77,035	77,376	78,559
Property, plant and equipment	12,214	12,153	12,531	13,323	13,790	14,275
Goodwill	49,559	48,914	48,289	48,289	48,289	48,289
Other intangible assets	9,859	8,837	8,200	8,352	7,821	8,096
Associates	149	150	150	310	478	654
Deferred tax assets	6,999	8,663	8,377	6,761	6,998	7,244
Other non-current assets	0	0	0	0	0	0
Total assets	199,522	199,427	194,010	200,246	210,830	221,939
Shareholders' equity & debt						
Current liabilities, total	77,343	69,200	59,679	60,651	62,775	63,918
Interest bearing debt	3,374	0	2,622	0	0	0
Trade accounts payable	14,929	12,553	14,564	14,914	15,436	14,914
Liabilities relating to long term contracts	28,819	25,728	13,287	11,931	12,349	12,784
Provisions	0	0	0	0	0	0
Other current liabilities	30,221	30,919	29,206	33,805	34,989	36,220
Non-current liabilities, total	49,027	54,953	54,034	54,670	55,060	55,457
Interest bearing debt	83	0	0	0	0	0
Pension provisons	46,981	52,037	50,540	50,793	51,047	51,302
Deferred tax liabilities	1,963	2,916	3,494	3,878	4,013	4,155
Consolidated equity	73,152	75,274	80,297	84,924	92,996	102,565
Shareholders' equity	73,152	75,274	80,297	84,924	92,996	102,565
Minorities	0	0	0	0	0	0
Total consolidated equity and debt	199,522	199,427	194,010	200,246	210,830	221,939
Ratios						
Current ratio (x)	1.56	1.74	1.95	2.03	2.13	2.24
Quick ratio (x)	1.51	1.65	1.82	1.89	1.99	2.10
Equity ratio	36.7%	37.7%	41.4%	42.4%	44.1%	46.2%
Net gearing	15.9%	12.0%	18.7%	11.4%	2.8%	-6.0%
Equity per share	4.66	4.80	5.12	5.41	5.92	6.53
Interest coverage ratio (x)	6.13	15.80	13.60	18.90	42.26	-160.41
Capital employed (CE)	88,045	84,531	89,815	94,986	95,123	95,981
Return on capital employed (ROCE)	9.7%	9.8%	10.4%	11.2%	12.5%	13.7%



## **CASH FLOW STATEMENT**

All figures in €'000	2015	2016	2017	2018E	2019E	2020E
Pretax result	9,438	11,233	12,524	14,556	16,696	19,050
Depreciation and amortisation	4,286	4,294	4,351	4,971	5,145	5,327
Other	-1,685	-479	-1,098	-3,974	-4,872	-5,583
Operating cash flow	12,039	15,048	15,777	15,553	16,969	18,794
Investment in working capital	1,971	-1,713	-14,609	-213	-752	283
Net operating cash flow	14,010	13,335	1,168	15,340	16,217	19,076
Cashflow from investing	-2,234	-2,912	-4,089	-5,916	-5,081	-6,087
Free cash flow	11,776	10,423	-2,921	9,425	11,135	12,989
Dividend paid	0	-3,277	-3,439	-3,610	-3,767	-3,924
Share buy back	-303	0	-297	-252	0	0
New share capital	0	0	0	0	0	0
Debt financing	-1,813	-3,457	2,622	-2,622	0	0
Other	0	0	0	0	0	0
Cash flow from financing	-2,116	-6,734	-1,114	-6,484	-3,767	-3,924
Other	-143	488	-841	0	0	0
Change in cash	9,517	4,177	-4,876	2,941	7,368	9,065
Cash, start of the year	29,314	38,831	43,008	38,132	41,073	48,441
Cash, end of the year	38,831	43,008	38,132	41,073	48,441	57,506
Free cash flow per share in €	0.75	0.67	-0.19	0.60	0.71	0.83
Y-o-y growth						
Operating cash flow	28%	25%	5%	-1%	9%	11%
Net operating cash flow	-42%	-5%	-91%	1213%	6%	18%
Free cash flow	21%	-11%	n.m.	n.m.	18%	17%



## FIRST BERLIN RECOMMENDATION & PRICE TARGET HISTORY

Report No.:	Date of publication	Previous day closing price	Recommendation	Price target
Initial Report	15 July 2003	€4.96	Market Perform	€5.00
263	<b>↓</b>	<b>↓</b>	$\downarrow$	<b>↓</b>
64	3 April 2018	€17.25	Add	€18.00
65	3 May 2018	€16.60	Add	€18.00
66	31 July 2018	€17.50	Add	€18.00
67	Today	€16.20	Add	€19.00

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Category Current market capitalisation (in €)		1	2 > 2 billion	
		0 - 2 billion		
Strong Buy <sup>1</sup>	An expected favourable price trend of:	> 50%	> 30%	
Buy	An expected favourable price trend of:	> 25%	> 15%	
Add	An expected favourable price trend of:	0% to 25%	0% to 15%	
Reduce	An expected negative price trend of:	0% to -15%	0% to -10%	
Sell	An expected negative price trend of:	< -15%	< -10%	

<sup>&</sup>lt;sup>1</sup> The expected price trend is in combination with sizable confidence in the quality and forecast security of management.

Our recommendation system places each company into one of two market capitalisation categories. Category 1 companies have a market capitalisation of  $\le 0 - \le 2$  billion, and Category 2 companies have a market capitalisation of  $> \le 2$  billion. The expected return thresholds underlying our recommendation system are lower for Category 2 companies than for Category 1 companies. This reflects the generally lower level of risk associated with higher market capitalisation companies.

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- valuation methods and principles
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