Europe | Germany | Crops & Energy

## UPDATE

## BUY

Target price: € 42.50

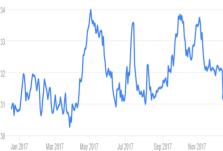
0 1						
Industry:	W	Wholesale				
Country:		Germany 005194062 BYW6 GR				
ISIN:	DE000					
Bloomberg:	E					
Reuters:	BYWGnx.DE					
Website:	www.k	baywa.de				
Last Price:		31.24				
Last Frice.	High	Low				
Price 52 W.:	34.09	30.01				
Market Cap. (EURm)	04.00	1093.71				
No. of Shares (in m)		35.01				
		00.01				
Shareholders						
Bay. Raiffeisen-Beteilig	gungs	34.99%				
Raiffeisen Agrar Invest		25.09%				
Free float		39.92%				
Performance						
4 Weeks		-3.30%				
26 Weeks		-0.40%				
52 Weeks		1.70%				
Dividends	in EUR	in %				
2011	0.60	2.20%				
2012	0.65	1.94%				
2013	0.75	1.94%				
2014	0.80	2.59%				

## Chart 1y

2015

2016

Equity Research



0.85

0.85

2.99%

2.58%

## Analyst

Dr. Norbert Kalliwoda nk@kalliwoda.com Tel.:0049-69-97205853 Bloomberg: KALL

## BayWa AG

## Further expansion of renewable energy business

The Group produced earnings before interest and tax (EBIT) of €90.3m by 30 Sept 2017 (9M/2016: €85.4m). BayWa also lifted its revenues considerably in the first nine months to close to €12 billion (9M/2016: €11.4b). The progression in revenues and EBIT was driven by all three core operating segments: Agriculture, Energy and Building Materials.

DR. KALLIWODA

**RESEARCH GmbH** 

- The Agriculture segment documented a €4.5m year-on-year increase in EBIT earnings in 9M/2017 to €49.6m (9M/2016: €45.1m). The revenus in 9M/2017 enhanced year on year (9M/2017: €8.25b; 9M/2016: €8.19b).The Energy segment documented a €5.3m year-on-year increase in EBIT earnings in 9M2017 to €63m (9M/2016: €57.7m). The revenues in 9M/2017 increased year on year by solid margin (9M/2017: €2.5b; 6M/2016: €2.07b). The Building Materials segnent documented ca. €3m year-on-year increase in EBIT earnings in 9M/2017 to €18.8m). The revenues also increased year on year (9M/2017: €1.2b; 9M/2016: €1.17b).
- In line with our expectations, the sizeable year-on-year climb in the 9M/2017 results was mainly driven by Renewable Energies business segment. The Group was capable to keep up the solid performance in Building Materials segment while the performance in Argi segment was burden due to the failed harvest in Germany and Europe.
- All in all, we are optimistic that the Group will have the ability to accomplish our targets for the year, provided that no unfavourable influences are applied on business by weather conditions and market environment. The group's revenues and the bottom line indicators should increase substantially in 2017-2019. We believe that positive impact of the bottom line enhancement will come soon (e.g. reducing SG&A costs) and should be seen in boosting margins in coming years and translate to significant increase in free cash flow margin.
- We expect that Baywa's 4Q17 results to show a substantial qoq profits recovery in Agri segment. We expect the Company's results to improve in the vast majority of segments (most likely Renewable Energy and on Building Materials). Growing demand for renewable and conventional energy, increasing willingness to spend of farmers and continual growth in building activities in Germany should support positive trend in revenues and profitability of the Group. The stock continues to be a BUY with a Target Price of € 42.44 based on DCF.

## **Key Figures**

iney ingai es								
EURm	2013	2014	2015	2016	2017E	2018E	2019E	2020E
Net sales	15 958	15 202	14 928	15 410	16 137	16 912	17 768	18714
EBITDA	281	280	288	273	306	418	442	470
EBIT	137	152	158	145	177	279	293	309
Net income	54	81	62	53	80	146	154	163
₽₽S	0.91	1.78	1.39	0.90	1.78	3.25	3.43	3.62
BVPS	26.55	22.77	23.37	23.14	24.54	27.77	31.04	34.32
RoE	6.12%	9.49%	7.72%	6.54%	9.64%	16.03%	15.02%	14.29%
EBIT margin	0.86%	1.00%	1.06%	0.94%	1.1 <b>0</b> %	1.65%	1.65%	1.65%
P/E	42.58	17.37	20.41	28.15	17.52	9.62	9.12	8.63
P/BVPS	1.45	1.36	1.22	1.43	1.27	1.12	1.01	0.91
ev/ebitda	12.56	13.91	14.04	16.16	14.04	10.27	9.71	9.37

Source: company, Dr. Kalliwoda Research GmbH © 2017

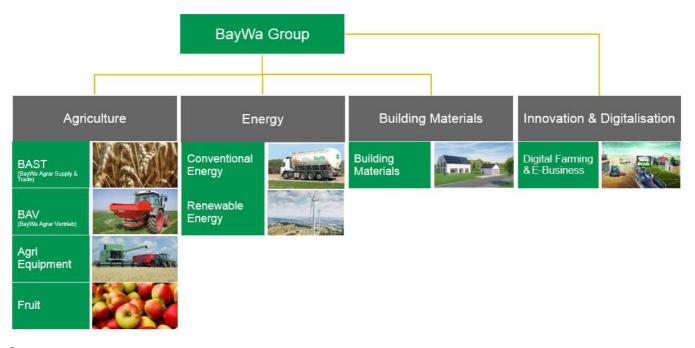
## Content

1	Company profile	3
2	SWOT Analysis	4
3	Valuation	5
4	9M/17 Results	6
5	Profit and loss statements	10
6	Balance sheets	11
7	Cash Flow Statement	12
8	Financial ratios	12
9	Contacts	14
Dis	sclaimer	15
Ess	sential information, disclosures and disclaimer	15

## 1 Company profile

BayWa AG is a trading and services Group composed of three core business segments: Agriculture, Energy, and Building Materials. The company founded in 1923, headquartered in Munich, is active on every continent in the world. The Company is engaged in the wholesale and retail of industrial and agricultural goods, and in the provision of related services. Its business activities are structured into the core segments of Agriculture, Building Materials and Energy, along with the innovation & digitalization segment and other Activities. The Agriculture segment offers products such as grain and fruits, crop protection products, fertilizers, feedstuff and seeds, as well as agricultural equipment such as tractors, forestry machinery and spare parts. The Building Materials segment provides construction materials and building components, as well as operating garden centers and pet departments only in Austria and providing services for heating and sanitary installations on a regional basis. The Energy segment offers mineral oils, biodiesel and lubricants and operates a network of around 272 fuel stations in Germany and Austria. In addition, BayWa has established itself in the renewable energies market as a major internationally oriented project developer and trader in the fields of wind power, solar power and bioenergy.

BayWa AG is a strong corporate structure listed on Frankfurt Stock Exchange with 16,711 employees as of 31 December 2016.



Source: company

## SWOT Analysis

#### Strengths

2

- Leader in Crop protection product distribution (Germany) and Top 10 world agricultural traders
- Strong position in Heating Oil trade: Largest in Southern Germany and Top Five in Austria
- Economies of Scope: Nearly complete coverage of the agricultural value chain
- Diversification in the segments agriculture, energy and building materials reduces the dependence on the agrarian segment and the commodity fluctuation
- Solid shareholder structure: the main shareholders are Bayerische Raffeisen-Beteiligungs AG (35%), Raiffeisen Agrar Invest GmbH (25%)
- Geographic stronghold in Germany and Austria with worldwide expansion starting in 2013
- Core competency in full-service supplement for the agricultural industry generates a large and loyal customer foundation
- Loyal customers relations since they are buyers of agrarian products and supplier of crops at the same time

#### **Opportunities**

- Global grain production (wheat and coarse grains) in 2017/18 is still on high levels and is set to reach 2.04 bln tones according International Grains Counsil (as of 27 July 2017)
- By 2050, the world's population will grow by another
   2 billion, reaching 9 billion people and increasing prosperity
   in EM is leading to changes in eating habits and increasing
   demand for food
- Internationalization of business: Chile, USA, China, Australia, Fiji and New Zealand
- Number of building permits continues to rise steadily
- Cefetra B.V. business should benefit form above than expected improvement in Polish economy (GDP: 3.9% in 2q 2017)

Source: Dr. Kalliwoda Research GmbH © 2017

#### Weaknesses

- Still, dependency on the German and Austrian market
- Very difficult market in Austria (-11% y/y) in 2016
- Agriculture exposure is almost 70% of FY16, which plays down in importance Energy and Building businesses
- M&A Intensive activity complicated decision-making process and strategy execution
- Lower than expected net profitability in Q3/2017
- Weather-related losses in fruit trading in Q3/2017

#### Threats

- Germany and Austria are still important so economic weakness in Core Europe is to be felt by BayWa AG
- Volatile commodity markets
- Agricultural demand elasticity is to be rather low, yet the Energy business is seasonal while building cyclical bias is evident
- Weather-related losses in Agri segment

## **3** Valuation

Based on the WACC of 6.4 % we have released a fair value of €42.44 per share for BayWa AG.

Equity	
Long-term risk-free rate	2.2%
Market risk premium	6.3%
Company beta	1.4
Equity costs	11.0%
Debt	
Debt costs (before tax)	5.5%
Tax rate on debt interest	29.7%
Debt costs (after tax)	3.9%

Equity value	35%
Debt value	65%
WACC	6.4%

Source: Dr. Kalliwoda Research GmbH © 2017

#### Discounted Cash Flow Model (Basis 9/2017)

in EURm	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E
Total revenues	16 137	16912	17 768	18714	19759	20916	22 197	23621
(y-o-y change)	4.7%	4.8%	5.1%	5.3%	5.6%	5.9%	6.1%	6.4%
EBIT	177.4	279.0	293.2	308.8	326.0	345.1	366.3	389.7
(operating margin)	1.1%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
NOPLAT	124.2	195.3	205.2	216.1	228.2	241.6	256.4	272.8
+ Depreciation & amortisation	129.1	138.7	149.3	160.9	173.9	188.2	204.2	222.0
= Net operating cash flow	253.3	334.0	354.5	377.1	402.1	429.8	460.6	494.9
- Total investments (Capex and WC)	-44.6	-130.6	-214.4	-287.7	-255.3	-249.5	-295.2	-305.7
Capital expenditure	-158.2	-218.8	-257.0	-300.1	-240.0	-257.2	-276.3	-297.6
Working capital	113.7	88.2	42.6	12.4	-15.3	7.7	-19.0	-8.1
= Free cash flow (FCF)	208.7	203.4	140.1	89.3	146.7	180.3	165.4	189.1
PV of FCF's	205.5	188.3	121.9	73.1	112.9	130.4	112.4	120.8

PV of FCFs in explicit period	1 065.30
PV of FCFs in terminal period	3 329.06
Implied Enterprise value (EV)	4 394.36
+ Net cash / - net debt	-2 685.33
+ Investments / - minorities	-328.40
Shareholder value	1 380.63
Number of shares outstanding (m)	34.8
WACC	6.4%
Cost of equity	11.0%
Pre-tax cost of debt	5.5%
Normal tax rate	29.7%
After-tax cost of debt	3.9%
Share of equity	35.0%
Share of debt	65.0%
Fair value per share in EUR (today)	39.71
Fair value per share in EUR (in 12 months)	42.24

## 4 9M/17 Results

The Group produced earnings before interest and tax (EBIT) of  $\oplus 0.3$ m by 30 Sept 2017 (9M/2016: €85.4m). BayWa also lifted its revenues considerably in the first nine months to close to €12 billion (9M/2016: €11.4b). The progression in revenues and EBIT was driven by all three core operating segments: Agriculture, Energy and Building Materials.

The company successfully issued of a EUR 300 million hybrid bond. A total of €300 million was placed with national and international institutional investors. The proceeds of the issue will be utilized, among other purposes, to refinance liabilities, to enhance the company's capital base and to diversify the portfolio of financing opportunities. The company acquired majority holding in Vista GmbH (a service developer for satellite applications), in Landhandel Knaup GmbH (an agriculture products trading) and made an acquisition of wind project developer Future Energy in Australia.

The Agriculture segment documented a  $\notin$ 4.5m year-on-year increase in EBIT earnings in the first nine months of 2017 to  $\notin$ 49.6m (9M/2016:  $\notin$ 45.1m). The revenues in 9M/2017 enhanced slightly year on year (9M/2017:  $\notin$ 8.25b; 9M/2016:  $\notin$ 8.19b). The revenues progression was mainly because of farmers' greater desire to invest continues. The incredibly confident development of agricultural equipment business overcompensated for the weather-related losses in fruit trading. Frost damages trigger weakest EU apple harvest since 10 years: 9.3 m tons. Therefore, fruit trading business did not meet the level of the prior year because of a delay to the marketing season for overseas apples because of weather conditions and the worse than expected harvest in Germany and European countries.

The **Energy segment** documented a  $\in$ 5.3m year-on-year increase in EBIT earnings in the first nine months of 2017 to  $\notin$ 63m (9M/2016:  $\notin$ 57.7m). The revenes in 9M/2017 enhanced year on year by solid margin (9M/2017:  $\notin$ 2.5b; 6M/2016:  $\notin$ 2.07b). The renewable energy division achieved 43% increase in revenues due to global expansion of the service business and trading with PV components. The energy segment documented sizeable year-on-year sales progress in the first nine months of the recent fiscal year, predominantly because of the international growth of BayWa r.e. renewable energy business which sold solar, wind and biogas plants with a total output of above 290 megawatts (MW) in Europe, Australia and the US. Moreover, the company benefitted from high average oil price.

The **Building Materials segment** documented ca.  $\in$ 3m year-on-year increase in EBIT earnings in the first nine months of 2017 to  $\notin$ 21.6m (9M/2016:  $\notin$ 18.8n). The revenues in 9M/2017 enhanced year on year (9M/2017:  $\notin$ 1.2b; 9M/2016:  $\notin$ 1.17b). This positive pattern was mainly because of high demand for building materials in the German construction, which is experiencing persistently solid expansion and the increase in sales in areas such as flat roof construction and building components.

## Results in 9M/2017

9M/17 results vs. previous year							
in EURm	9M/2017	9M/2016	change				
Net sales	11 980.3	11 439.3	4.7%				
EBITDA	188.1	177.3	6.1%				
EBITDA margin	1.6%	1.5%					
EBIT	90.3	85.4	-				
EBIT margin	0.8%	0.7%					
Net income	28.0	25.0	-				
Net margin	0.2%	0.2%					

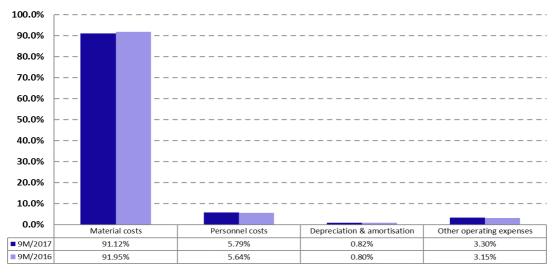
Source: Dr. Kalliwoda Research GmbH © 2017

## Segment performance breakdown figures 9M/2017 vs. 9M/2016

	9M/2017	9M/2016		9M/2017	9M/2016
Agriculture			Innovation and others	5	
Sales EURm	8247.1	8 186.3	Sales EURm	4.8	4.4
share in total sales	68.8%	71.6%	share in total sales	0.0%	0.0%
EBIT	49.60	45.10	EBIT	neg.	neg.
EBIT margin	0.6%	0.6%	EBIT margin	neg.	neg.
Energy			Group		
Sales EURm	2 500.5	2 070.6	Total sales EURm	11 980.3	11 439.3
share in total sales EBIT EBIT margin	20.9% 63.00 2.5%	18.1% 57.70 2.8%	change y-o-y	4.7%	
<b>Building materials</b>					
Sales EURm	1218.6	1 168.6			
share in total sales	10.2%	10.2%			
EBIT	21.60	18.80			
EBIT margin	1.8%	1.6%			

Source: Dr. Kalliwoda Research GmbH © 2017 (Revenues in the table include intra and inter segment results)

## Costs breakdown



## **Outlook**

In **Agricultural segment**, we predict positive trend in earnings in Q4/2017. Because of the weather, the autumn sowing season commenced about two weeks later than in 2016. Therefore, the bulk of seasonal demand for operating resources is likely to move to the later autumn months. Moreover, we should see the results of restructuring works in Italy and Romania in next months. Additionally, trade with tropical fruits could benefit from Christmas business. The fruit trading business damaged by poor weather, should report moderate recovery effects from overseas apple business throughout to the end of the year, while the northern parts should report harvest below average, including Germany. Propensity to invest is likely to increase in the agricultural sector. Widespread willingness of farmers to invest in agricultural equipment should contribute more to the overall performance of the segment. Overall, the Agri segment experienced difficult time this year due to unexpected weather conditions. However, the restructuring, cost savings and stable rise in sales of new and used tractors should provide positive driver for the future top and bottom line results.

In the **Energy segment**, it can be suspected that trade with heating oil in particular will rise once again in the winter months ahead. We anticipate steady development of fuels and lubricants business in line with positive economic trend that suggests GDP growth of 2.0% in Germany.

We are especially bullish on renewable energy segment. The sold output may exceed 300 MW and to be higher than expected (+215 MW). Margins should remain at the same level due to high competition. The company significantly expand operations by purchasing project developer Future energy and project portfolio in Australia. Besides the structural reasons (eg. 80% of power generation in Germany originate from renewable energy sources until 2050) the renewable energy sector received another unexpected driver to grow - development of blockchain technology and proof-of-work protocol (miners use energy intensive hardware and are rewarded by collecting cryptocurrency). Especially wind energy is well suited to mine cryptocurrencies. Bitcoin price approaching 18,000 USD and development of blockchain technology, results in the booming demand for computation power and cheap energy. According to Digiconomist, the Bitcoin's current estimated annual electricity consumption (TWh) are estimated at 32TWh with monthly growth of +20%, while Ethereum uses energy at level of 11TWh. This means that the costs of mining Bitcoin is approx. USD 1.6b per year and Bitcoin mining consumes more electricity a year than Ireland.

In terms of **Building Materials segment**, we expect the high demand for residential properties should be maintain, which drives an increase to construction activity. Demand for building materials ought to take advantage of the high order backlog of construction firms in the last quarter of 2017. We anticipate increase in residential and commercial constructions as well as in public-sector construction. The demand should be driven by low-interest environment, accumulated personal savings and relatively stable and growing business in Germany and Austria. Overall, we keep our bullish outlook for coming months. We adjust our projections for Baywa for 2017E and onwards. We cut our sales forecasts for 2017E due to the failed harvest in Germany and Europe and lower than expected margins in Energy segment. However, we increase our revenues and profitability forecast for 2018E onwards. We are particularly bullish on Renewable Energy business and on Building Materials overall. Ee expect the Group to generate  $\leq 16.13b$  of revenues and  $\leq 177m$  of EBIT in 2017.

Our forecasts 2017E-19E							
in EURm	2017E	2018E	2019E				
Net sales	16 137	16912	17 768				
Agri	11 440	12 012	12 630				
Energy	3 086	3 225	3 396				
Bulding Materials	1 591	1 655	1721				
EBITDA	306	418	442				
EBITDA margin	1.9%	2.5%	2.5%				
EBIT	177	279	293				
EBIT margin	1.1%	1.7%	1.7%				
Net income	80	146	154				
Net margin	0.50%	0.87%	0.87%				

Source: Dr. Kalliwoda Research GmbH © 2017

All in all, we are optimistic that the Group will have the ability to accomplish our targets for the year, provided that no unfavourable influences are applied on business by weather conditions and market environment. The group's revenues and the bottom line indicators should increase substantially in 2017-2019. We believe that positive impact of the bottom line enhancement will come soon (e.g. reducing SG&A costs) and should be seen in boosting margins in coming years and translate to significant increase in free cash flow margin.

We expect that Baywa's 4Q17 results to show a substantial qoq profits recovery, which given market trends, should be no surprise for investors, though. We expect the Company's results to improve in the vast majority of segments (most likely Renewable Energy and on Building Materials) providing potential catalyst for the further performance of the share market price. Growing demand for renewable and conventional energy, increasing willingness to spend of farmers and continual growth in building activities in Germany should support positive trend in revenues and profitability of the Group.

## 5 Profit and loss statements

#### Profit and loss statement - BayWa AG

		Fiscal year							
Figures in EURm	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E
Total reveues	10 531	15 958	15 202	14 928	15 410	16 137	16 912	17 768	18 714
Change of inventories	39	27	-43	87	67	35	35	36	52
Capitalised items	5	2	5	4	8	5	5	5	5
Total output	10 780	16 247	15 346	15 177	15 679	16 377	17 150	17 996	18 959
Cost of goods sold	-9 355	-14 668	-13 817	-13 575	-14 053	-13 814	-13 933	-13 874	-13 904
Gross profit	1 176	1 290	1 385	1 353	1 357	2 323	2 979	3 894	4 810
Other operating income	205	260	182	158	195	200	199	187	188
Personnel costs	-718	-781	-793	-825	-864	-900	-906	-971	-1 034
Depreciation & amortisation	-120	-144	-128	-130	-128	-129	-139	-149	-161
Other operating expenses	-418	-549	-457	-488	-513	-1357	-1893	-2709	-3551
Operating income	187	137	152	158	145	177	279	293	309
Net financial result	-47	-62	-72	-70	-53	-63	-70	-73	-76
EBT	123	75	80	88	70	114	209	220	233
Income taxes	-5	-21	0	-26	-17	-34	-63	-66	-70
Minorities	0	0	0	0	0	0	0	0	0
Net income / loss	118	54	81	62	53	80	146	154	163
EPS	2.82	0.91	1.78	1.39	0.90	1.78	3.25	3.43	3.62
DPS	0.65	0.75	0.80	0.85	0.85	0.85	1.30	1.37	1.45
Change y-o-y									
Total reveues	9.86%	51.53%	-4.74%	-1.80%	3.23%	4.72%	4.80%	5.06%	5.32%
Change of inventories	-56.10%	-29.60%	-257.01%	-301.16%	-23.1%	-47.0%	-2.1%	4.1%	43.9%
Total output	9.94%	50.71%	-237.01%	-301.10%	3.31%	4.45%	4.72%	4.93%	5.35%
Cost of goods sold	10.02%	56.79%	-5.80%	-1.75%	3.52%	-1.70%	0.86%	-0.43%	0.22%
Gross profit	8.63%	9.65%	7.39%	-2.31%	0.33%	71.16%	28.22%	30.74%	23.51%
Other operating income	58.91%	26.67%	-29.75%	-13.47%	23.47%	2.60%	-0.50%	-6.10%	0.47%
Personnel costs	5.74%	8.77%	1.55%	4.05%	4.66%	4.16%	0.72%	7.22%	6.48%
Depreciation & amortisation	17.30%	20.20%	-11.31%	1.92%	-1.8%	1.02%	7.42%	7.62%	7.83%
Other operating expenses	9.63%	31.33%	-16.75%	6.81%	5.17%	164.58%	39.49%	43.07%	31.09%
Operating income	25.16%	-26.44%	10.68%	3.97%	-8.30%	22.35%	57.29%	5.06%	5.32%
Net financial result	4.56%	32.55%	15.01%	-2.13%	-24.43%	18.87%	11.11%	4.29%	4.11%
EBT	17.55%	-38.74%	7.08%	9.49%	-20.96%	64.38%	82.72%	5.32%	5.72%
Income taxes	-83.15%	352.17%	-101.34%	-9580%	-36.48%	104.30%	82.72%	5.32%	5.72%
Net income / loss	53.26%	-53.98%	48.62%	-23.66%	-14.30%	51.68%	82.72%	5.32%	5.72%
EPS	90.88%	-67.84%	96.30%	-21.77%	-35.32%	98.14%	82.09%	5.50%	5.63%
	50.0070	07.0170	50.5070	21.7770	55.5270	50.1170	02.0970	5.5070	5.05 /
Share in total revenues									
Total reveues	100.00 %	100.00 %	100.00 %	100.00 %	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Change of inventories	0.37 %	0.17 %	-0.28 %	0.58 %	0.43 %	0.22 %	0.20 %	0.20 %	0.28 %
Capitalised items	0.05 %	0.01 %	0.04 %	0.03 %	0.05 %	0.03 %	0.03 %	0.03 %	0.03 %
Total output	102.36 %	101.81 %	100.95 %	101.66 %	101.75 %	101.5 %	101.4 %	101.3 %	101.3 %
Cost of goods sold	-88.83 %	-91.92 %	-90.89 %	-90.94 %	-91.2 %	-85.6 %	-82.4 %	-78.1 %	-74.3 %
Gross profit	11.17 %	8.08 %	9.11 %	9.06 %	8.81 %	14.40 %	17.61 %	21.92 %	25.70 %
Other operating income	1.95 %	1.63 %	1.20 %	1.06 %	1.26 %	1.24 %	1.18 %	1.05 %	1.00 %
Personnel costs	-6.82 %	-4.89 %	-5.22 %	-5.53 %	-5.60 %	-5.57 %	-5.36 %	-5.47 %	-5.53 %
Depreciation & amortisation	-1.14 %	-0.90 %	-0.84 %	-0.87 %	-0.83 %	-0.80 %	-0.82 %	-0.84 %	-0.86 %
Other operating expenses	-3.97 %	-3.44 %	-3.00 %	-3.27 %	-3.33 %	-8.41 %	-11.20 %	-15.25 %	-18.98 %
Operating income	1.77 %	0.86 %	1.00 %	1.06 %	0.94 %	1.10 %	1.65 %	1.65 %	1.65 %
Net financial result	-0.45 %	-0.39 %	-0.47 %	-0.47 %	-0.34 %	-0.39 %	-0.41 %	-0.41 %	-0.41 %
EBT	1.16 %	0.47 %	0.53 %	0.59 %	0.45 %	0.71 %	1.24 %	1.24 %	1.24 %
Income taxes	-0.04 %	-0.13 %	0.00 %	-0.18 %	-0.11 %	-0.21 %	-0.37 %	-0.37 %	-0.37 %
Minorities	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Net income / loss	1.12 %	0.34 %	0.53 %	0.41 %	0.34 %	0.50 %	0.87 %	0.87 %	0.87 %

## 6 Balance sheets

#### Balance sheet - BayWa AG

	Fi	scal year							
Figures in EURm	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020
Assets									
Inventories	1 433	1 836	1 986	2 142	2 380	2 499	2 398	2 489	2 4 9
Trade receivables	621	702	1 084	1 255	1 396	1 406	1 394	1 442	146
Tax receivables	50	65	28	23	43	64	66	67	1 10
Other assets	254	403	28	22	107	114	175	276	2
Securities and other financial assets	231	2	156	224	153	228	486	495	5
Cash & cash equivalents	85	92	108	84	104	453	469	672	66
Current assets	2 445	3 100	3 390	3 749	4 184	4 764	4 987	5 4 4 1	5 4
	-								
Property, plant and equipment	1 068	1 074	1 397	1 420	1 403	1 413	1 427	1 467	150
Assets-for-sale	233	0	0	0	0	0	0	0	
At-Equity shareholdings	93	102	196	204	215	220	318	314	4
Financial assets	325	408	257	226	153	157	165	223	3
Other assets	42	46	54	60	62	112	168	160	1
Intangible assets	140	157	148	167	213	228	286	295	3
Goodwill	0	0	0	0	0	0	0	0	
Deferred tax assets	113	128	209	212	246	241	269	278	2
Non-current assets	2 012	1 915	2 262	2 287	2 291	2 372	2 632	2 737	30
Fotal assets	4 457	5 015	5 652	6 037	6 475	7 136	7 619	8 178	84
Liabilities									
Tax payables	53	77	28	25	29	56	53	50	!
Pension provisions	30	29	29	30	31	32	34	35	
Other provisions	136	145	171	176	180	190	199	209	2
Short-term financial debt	894	1 1 3 2	1 312	1 491	1 520	1 730	1 820	1 9 1 0	18
Trade payables	761	767	745	792	894	1 295	1 2 5 4	1 362	13
Other liabilities	73	265	204	255	430	266	286	363	3
Current liabilities	1 947	2 414	2 488	2 769	3 084	3 570	3 646	3 930	39
Pension provisions	520	512	638	625	661	676	709	744	7
Other provisions	88	86	83	83	86	89	94	98	1
Financial and leasing debt	649	629	1 111	1 227	1 269	1 4 4 9	1 589	1 679	17
Long-term trade payables	4	3	2	5	5	5	6	6	
Other liabilities	11	26	127	93	97	26	38	39	
Deferred tax liabilities	126	163	152	158	174	134	241	269	2
Liabilities from assets-for-sale	27	0	0	0	0	0	0	0	
Long-term liabilities	1 425	1 419	2 113	2 191	2 292	2 381	2 675	2 837	29
Fotal liabilities	3 372	3 833	4 602	4 961	5 376	5 951	6 321	6 766	69
Shareholder's equity	862	914	786	810	804	856	969	1 083	11
Minority interests	223	268	264	266	294	328	328	328	33
Total equity and liabilities	4 457	5 015	5 652	6 037	6 475	7 136	7 619	8 178	84

Source: Dr. Kalliwoda Research GmbH © 2017

Equity Research

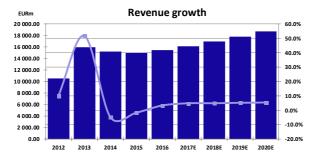
#### 7 **Cash Flow Statement**

Cash flow statement - BayWa AG									
	Fiscal year								
Figures in EURm	2012	2013	2014	2015	2016	2017E	2018E 201	2019E	2020E
Net income / loss before minority share deduction	118.0	54.3	80.7	61.6	52.8	80.1	146.3	154.1	162.9
Depreciation & amortisation	119.8	144.0	127.7	130.2	127.8	129.1	138.7	149.3	160.9
Change of working capital	15.3	-31.9	-224.1	-191.0	-190.0	113.7	88.2	42.6	12.4
Others	-80.9	52.9	-75.0	18.2	217.9	-21.2	91.8	35.0	33.0
Net operating cash flow	150.0	219.3	-90.6	19.0	208.5	301.7	464.9	381.0	369.3
CAPEX	-193.6	15.6	-227.6	-143.5	-123.6	-158.2	-218.8	-257.0	-300.1
Free cash flow	-43.6	234.9	-318.2	-124.4	84.9	143.4	246.2	124.0	69.2
Cash flow from financing	37.4	-217.0	334.4	98.7	-63.0	205.4	-230.1	78.9	-73.5
Change of cash	-2.3	7.4	16.3	-23.9	19.9	348.8	16.1	203.0	-4.4
Cash at the beginning of the period	87.0	84.7	92.1	108.4	84.5	104.4	453.2	469.3	672.3
Cash at the end of the period	84.7	92.1	108.4	84.5	104.4	453.2	469.3	672.3	667.9

Source: Dr. Kalliwoda Research GmbH © 2017

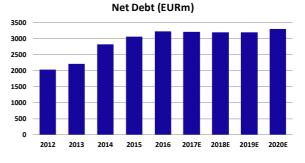
#### **Financial ratios** 8

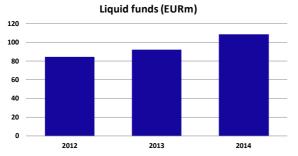
Ratios	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E
Gross margin	13.22%	9.72%	9.97%	10.55%	10.37%	15.65%	18.76%	22.91%	26.66%
EBITDA margin	2.91%	1.76%	1.84%	1.93%	1.77%	1.90%	2.47%	2.49%	2.51%
EBIT margin	1.77%	0.86%	1.00%	1.06%	0.94%	1.10%	1.65%	1.65%	1.65%
Net margin	1.09%	0.33%	0.53%	0.41%	0.34%	0.49%	0.85%	0.86%	0.86%
Return on equity (ROE)	13.66%	6.12%	9.49%	7.72%	6.54%	9.64%	16.03%	15.02%	14.29%
Return on assets (ROA)	3.70%	2.33%	2.70%	2.18%	1.63%	2.01%	2.84%	2.78%	2.81%
Return on capital employed (ROCE)	7.16%	3.82%	4.82%	3.39%	2.99%	3.48%	4.92%	4.83%	4.78%
Current ratio	1.26	1.28	1.36	1.35	1.36	1.33	1.37	1.38	1.38
Quick ratio	0.36	0.33	0.54	0.56	0.54	0.58	0.64	0.66	0.67
Net interest cover	3.97	2.21	2.12	2.25	2.74	2.82	3.99	4.02	4.06
Net debt/EBITDA	6.63	7.84	10.10	10.63	11.82	10.47	7.65	7.24	7.04
Book value per share	25.11	26.55	22.77	23.37	23.14	24.54	27.77	31.04	34.32
CAPEX/Sales	1.42%	1.57%	1.91%	0.94%	0.43%	0.98%	1.29%	1.45%	1.60%
Working capital/Sales	11.51%	9.35%	13.95%	15.68%	15.97%	14.55%	13.36%	12.47%	11.78%
EV/Sales	0.30	0.22	0.26	0.27	0.29	0.27	0.26	0.24	0.24
EV/EBITDA	10.37	12.56	13.91	14.04	16.16	14.12	10.33	9.77	9.42
EV/EBIT	17.03	25.73	25.60	25.60	30.40	24.39	15.47	14.74	14.33
P/BVPS	1.33	1.45	1.36	1.22	1.43	1.31	1.15	1.03	0.93
P/E	11.87	42.58	17.37	20.41	28.15	17.98	9.87	9.36	8.86

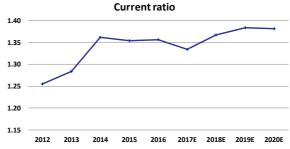


Profitability 18.0% 16.0% 14.0% 12.0% 10.0% 8.0% 6.0% 4.0% 2.0% 0.0% 2012 2013 2014 2015 2016 2017E 2018E 2019E 2020E









## 9 Contacts

Primary Research   Fair Value	Analysis   International Roadshows	Dr. Kalliwoda Research GmbH, Steinstraße 24, D-64839 Münster, office Frankfurt Arndtstr. 47, 60325 Frankfurt Tel.: 069-97 20 58 53 Fax: 069-13 81 92 15				
Head: Dr. Norbert Kalliwoda	CEFA-Analyst; University of Frankfurt/Main; PhD in Economics;	<u>Sectors:</u> IT, Software, Electricals & Electronics, Mechanical Engineering, Logistics, Laser,				
E-Mail: nk@kalliwoda.com	DiplKfm., DiplHdl.	Technology, Raw Materials				
<b>Dr. Peter Arendarski</b> E-Mail: pa@kalliwoda.com	Senior-Analyst, Msc & Ph.D in Finance (Poznan Univers. of	<u>Sectors:</u> Technology,Raw Materials, Banks & Insurances, Financial-Modelling (Quant.,				
E-Mail: pa@kailiwoda.com	Economics),CFA Level 3 Candidate	Buyside)				
Patrick Bellmann	Junior-Analyst; WHU - Otto Beish.	Sectors: Support Research and Quantitative				
E-Mail: pb@kalliwoda.com	School of Management Vallendar	Approach				
Ilias Chahboune	Master Economics: Uni Amsterdam	Sectors: Consumer, Retail, Real Estate				
E-Mail: ic@kalliwoda.com						
Kilian Dreher	Junior-Analyst; University of	Sectors: Consumer, Retail, Food & Beverages,				
E-Mail: kd@kalliwoda.com	Frankfurt/Main	Fashion				
Michael John	DiplIng. (Aachen)	Sectors: Chemicals, Chemical Engineering, Basic				
E-Mail: mj@kalliwoda.com		Metals, Renewable Energies, Laser/Physics				
Marta Kifleab E-Mail: mki@kalliwoda.com	University of Mainz:	Roadshow/Conference Organisations				
Rainer Koch	Sprachwissenschaften Computer-Science/DiplBetriebw,	Sectors: IT, IT-Services, Internet, Media, Interne				
E-Mail: rk@kalliwoda.com	(Frankfurt); seasoned international	Emerging Markets				
L-Mail. IK@kailwoud.com	Executive IT-Industry					
Witold Konrad Kosinski	Finance & Banking Warsaw School of	Sectors: Consumer Goods, Trading Companies,				
E-Mail: wk@kalliwoda.com	Econ,Master of Science; postgrad.	Food & Beverages, Technology				
	Managem.Studies,Prepar.CFA Lev.2					
Olaf Köster	DiplBetriebswirt, EBS	Sectors: Renewable Energy/Technology				
E-Mail: ok@kalliwoda.com						
Sebastian Krawczyk	Bachelor in Management, Quant.	Sectors: Quantitative Methods, Automotive,				
E-Mail: sk@kalliwoda.com	Meth. in Economics & Inf. Systems at	Technology				
Chairteach I "ffal	Warsaw School/Mannheim, CFA Can. Bachelor Betriebswirtschaftslehre	Sectors: Financials, Real Estate				
Christoph Löffel E-Mail: cl@kalliwoda.com	Universität Mannheim	Sectors. Financiais, Real Estate				
Dr. Christoph Piechaczek	DiplBiologist; Technical University	Sectors: Biotech & Healthcare; Medical				
E-Mail: cp@kalliwoda.com	Darmstadt; Univ. Witten-Herdecke.	Technology Pharmaceutical				
Nele Rave	Lawyer; Native Speaker, German	Legal adviser				
E-Mail: nr@kalliwoda.com	School London,	-				
Hellmut Schaarschmidt;	DiplGeophysicists; University of	Sectors: Oil, Regenerative Energies, Specialities				
E-Mail: hs@kalliwoda.com	Frankfurt/Main.	Chemicals, Utilities				
Dr. Erik Schneider	DiplBiologist; Technical University	Sectors: Biotech & Healthcare; Medical				
E-Mail: es@kalliwoda.com Hans-Georg Sutter	Darmstadt; Univ. Hamburg. DiplWirtschaftsingenieur University	Technology Pharmaceutical <u>Sectors:</u> IT/e-commerce				
E-Mail: hsu@kalliwoda.com	Kaiserslautern	<u>Sectors.</u> 11/e-confinence				
Rainer Wochele	Bachelor of Science in Economics and	Junior-Analyst				
E-Mail: rw@kalliwoda.com	Business Administration (Goethe University Frankfurt M.)					
Also view Sales and Earnings	Analyst of this research:					
Estimates:	Dr. Norbert Kalliwoda, CEFA					
DR. KALLIWODA						
RESEARCH on Terminals of Bloomborg, Thomson Boutors						
Bloomberg, Thomson Reuters, vwd group and Factset						
wa group and raciset						

## **Disclaimer**

## Essential information, disclosures and disclaimer

## A. Essential information

The investments in financial instruments and securities (e.g. equities, bonds) generally involved on high risks. It is possible that the investors lose some or all of the invested money. Potential investors should be aware of the fact that the prices of securities could fall and rise. The income from such an\_investment might be considerable fluctuations. Investment strategies are not appropriate at all times and past results are not a guarantee for the future performance. Investors should make their own and independent decisions as to whether a risky investment.

# **B.** Disclosures according to Section 34b of the German Securities Trading Act (WpHG) and to the German Regulation governing the Analysis of Financial Instruments (FinAnV).

## I. Information about author, company held accountable, regulatory authority:

Company responsible for the content of this document: DR. KALLIWODA RESEARCH GmbH, Frankfurt am Main, Germany.

Regulatory authority for DR. KALLIWODA RESEARCH GmbH is the Federal Financial Supervisory Authority (BaFin), Graurheindorfer Straße 108, 53117 Bonn, Germany and Lurgiallee 12, 60439 Frankfurt am Main, Germany.

Author of this research: Dr. Norbert Kalliwoda, Analyst, CEO and founder of DR. KALLIWODA RESEARCH GmbH.

## II. Additional Information:

## 1. Sources of information:

Essential sources of information for the compilation of this document are publications from domestic and international information services and media (e.g. Bloomberg, dpa-AFX, Reuters, VWD, among others), financial press (*e.g. Allgemeine Zeitung Frankfurter, Börsenzeitung, Financial Times Handelsblatt and others*), specialized trade press, published statistics, rating agencies as well as publications by peer group companies and the company itself. Additionally, conservation has been held with the management of the company. This document was made available to the company before publishing to ensure the correctness of the information provided.

## 2. Summary of the basis of valuation principles and methods used to prepare this document:

Within the scope of the evaluation of companies the following valuation methods are applied: Multiple-based models (Price/Earnings, Price/Cash-flow, Price/Book value, EV/Sales, EV/EBIT, EV/EBITDA), peer group comparisons, historic valuation methods, discounting models, sum-of-the-parts-approaches, substance-valuation methods and swot-analyses. The valuation principles and models are dependent on macroeconomic factors, such as interest rates, exchange rates, raw materials and on basic assumptions about the economy. Besides, the market moods and market sentiment affects the valuation of enterprises. The approaches are based on expectations that could change rapidly and without advance warning according on developments specific to individual branch. The valuation results and fair values derived from the models might therefore change accordingly.

The ratings are the evaluation results and refer to a fair value pricing reflecting a time-horizon of up general relate to a twelve-months. Nevertheless, evaluation results are subject to changing market conditions and constitute merely a snapshot. The evaluation results and fair values may be reached faster or slower than expected by the analysts. The results and fair values may to be scale upwards or downwards.

DR. KALLIWODA RESEARCH GmbH uses the following rating model:

BUY:	Based on our analysis, we expect the stock to appreciate and produce a total return of at least 10% over the next twelve months
ACCUMULATE:	Based on our analysis, we expect the stock to appreciate and produce a total return between 5%-10% over the next twelve months
HOLD:	Based on our analysis, we expect the stock to produce a total return between -5% and +5% over the next twelve months
REDUCE:	Based on our analysis, we expect the stock to cause a negative return between - 5% and -10% over the next twelve months
SELL:	Based on our analysis, we expect the stock to cause a negative return exceeding - 10% over the next twelve months

## 3. Date of first publication of this document: 21th of December 2017

## 4. Updates:

A specific update of this document has currently not been set. The research reflects the author's judgement on the date of this publication and is subject to change without any notice. The document might be incomplete or reduced and it may not contain all information concerning the company covered. It is in the sole decision of DR. KALLIWODA RESEARCH GmbH whether and when a potential update of this research is made.

## III. Disclosures about potential conflicts of interest:

The business model of DR. KALLIWODA RESEARCH GmbH is based on economic relationships with issuer company and equity transactions to be performed relating to the issuer's stock. Dr. Kalliwoda Research has entered into an agreement about the creation of this document with the company which is, or whose financial instruments are the issue of this research.

Conflicts of interest may be in existence with employees of DR. KALLIWODA RESEARCH GmbH who are the authors of this document as well as other persons that were involved in the preparation of this research or related parties.

Following conflicts of interest might exist:

- 1. DR. KALLIWODA RESEARCH GmbH employees or other persons that were involved in the preparation of this document or related parties might have a major shareholding (holding more than 5%) of the share capital of the emitter that is, or whose financial instruments are, the subject of the research.
- 2. DR. KALLIWODA RESEARCH GmbH employees or other persons that were involved in the preparation of this document or related parties are possibly holders of instruments that are mentioned in this research (or that are linked to these instruments) or might become holders and could regularly trade the emitter's securities or securities based on these issues as principal or agent.
- 3. DR. KALLIWODA RESEARCH GmbH employees or other persons that were involved in the preparation of this document or related parties could have participated in leading a consortium for the emitter via a public offering of the financial instruments that are the subject of this research.
- 4. DR. KALLIWODA RESEARCH GmbH employees or other persons that were involved in the preparation of this document or related parties might have been party to an agreement on the provision of investment banking services with the emitter which is the subject of this research, or have received services or a pledge to perform under the terms of such an arrangement during the same period.
- 5. DR. KALLIWODA RESEARCH GmbH employees or other persons that were involved in the preparation of this document or related parties may have other substantial economic interests concerning to the emitter which is the subject of this research.
- 6. DR. KALLIWODA RESEARCH GmbH employees or other persons that were involved in the preparation of this document or related parties might have been party to an agreement with the company, which is the subject of this research, resulting in receiving the compensation for preparation of this research.
- 7. DR. KALLIWODA RESEARCH GmbH employees or other persons that were involved in the preparation of this document or related parties received the feedback concerning the company profile and SWOT from the company, which is the subject of this research, before publishing this report to the public.

Important: Please get familiar with possible risks and possible conflicts of interest in the disclosure and disclaimer at the end of this report, especially for this report: 6. and 7.

The analysts have limited access to gain information that possibly could constitute a conflict of interest for the institution DR. KALLIWODA RESEARCH GmbH keeps insider registers appropriate to sec. 15 WpHG for assignees that normally have approach to inside information. Insiders' dealings appropriate to sec. 14 WpHG categorically are prohibited.

The analysts that composed this research did not receive or acquire shares in the emitter that is the subject of this document at any time. The analysts mentioned above herby certify that all of the views expressed accurately reflect the individual views about the emitter. No part of the indemnity was, is or will be, directly or indirectly, linked to the evaluation result or views expressed by the analyst in this research.

#### C. Disclaimer:

This document is published and being distributed by DR. KALLIWODA RESEARCH GmbH solely for informational purposes and for the personal use by persons in Germany. This research is not intended to be in any form an offer or advice to buy or sell the securities referred to herein. This research is intended to provide information to assist investors in making their own investment decisions. Any decision to purchase any securities of the emitter must be made solely on the basis of the information contained in the offering documents from the emitter relating to such securities and not on the contents hereof. Furthermore, our recommendation may not be fully suitable to every investor, depending on their investment objective, individual financial situation or targeted holding period.

Potential investors should seek professional and individual information and advice before making their investment decisions. This document neither constitutes a contract or any kind of obligation.

Neither this document nor any copy, in whole or in part, thereof may be distributed in any other jurisdiction where its distribution might be restricted by law, and person into whose published this document comes should inform and observe themselves about any such restrictions.

The information within this document has been obtained from sources believed by DR. KALLIWODA RESEARCH GmbH to be reliable. DR. KALLIWODA RESEARCH GmbH does not examine the information to be verify and complete, nor warrantees its correctness and completeness. Although due attention has been taken in compilation this document, it cannot be excluded that the information given is not complete or the document contains mistakes.

The liability of DR. KALLIWODA RESEARCH GmbH shall be restricted to gross negligence and wilful misconduct. All aspects penned in this document are those of DR. KALLIWODA RESEARCH GmbH respectively the authors and subject to modify without notice. Possible faults or incompleteness of this document may be reformed by DR. KALLIWODA RESEARCH GmbH and do not constitute reasons for liability, neither with regard to indirect nor to direct or consequential losses.

Moreover, DR. KALLIWODA RESEARCH GmbH does not accept any responsibility and liability for any damage arising from using of this research or its contents or otherwise arising in relation herewith. In each case, the liability and responsibility of DR. KALLIWODA RESEARCH GmbH is limited to typical, predictable damages and the liability for any direct or indirect losses is excluded.

This document is subject to the laws of the Federal Republic of Germany. Place of jurisdiction is Frankfurt am Main, Germany.

This document or any copy, in whole or in part thereof, may be distributed in any other jurisdiction where its distribution might be restricted by law and persons who have access to this document have to inform and observe themselves about any such restrictions.

In the United Kingdom this document is to be distributed only to persons who are described in Section 11 (3) of the Financial Services Act 1986 (Investment Advertisements) (Exemptions) Order 1996 (as amended). This research may not be distributed and forwarded directly or indirectly to any other group of individuals. The distribution of this document in other international jurisdictions may be restricted by law and individuals who possess this study should inform themselves of any existing restrictions and comply with them.

Neither this document nor any copy of it may be taken or transmitted into the United States of America, Canada, Japan or Australia or distributed, directly or indirectly, in the United States of America, Canada, Japan or Australia or to any resident thereof. Any Failure to comply with these restrictions may constitute a violation of United States, Canadian, Japanese or Australian securities laws or the law of any other jurisdiction.

By confirming this document the reader or user agrees and accepts to be bound by all of the foregoing provisions and this disclaimer. Besides, the user accepts not to distribute this document to unauthorized persons. The user of this document compensated DR. KALLIWODA RESEARCH GmbH for any disadvantages, damages, claims and losses resulting from or in relation with the unauthorized use of this document.

© 2017 DR. KALLIWODA RESEARCH GmbH, Arndtstraße 47, D-60325 Frankfurt am Main. All rights reserved.