

EQUITY - SPAIN

Sector: Basic Chemical

Report date: 3 Jun 2019
Distribution time: 14:00

Initial Coverage
Closing price: EUR 2.22 (31 May 2019)

ECR is an industrial group manufacturing chemical products that operates through 3 divisions: (i) basic chemicals, (ii) intermediate chemicals and (iii) pharmaceuticals. The core activity is the production of chlorine-caustic soda (>70% of EBITDA), ECR being the main producer in Spain (60% of total installed capacity) and among the top 10 at the European level. Sales outside Spain represent 47% of total revenue.

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Market Data

Market Cap (Mn EUR and USD)	239.3	267.2
EV (Mn EUR and USD)	397.1	443.6
Shares Outstanding (Mn)	107.9	
-12m (Max/Med/Min EUR)	5.47 / 3.92 / 2.20	
Daily Avg volume (-12m Mn)	1.40	
Rotation ⁽¹⁾	149.7	
Thomson Reuters / Bloomberg	ECR.MC / ECR SM	
Close fiscal year	31-Dec	

Shareholders Structure (%)

Dimensional Fund Advisors, L.P.	5.2
Joan Casas Galofre	4.2
Victor Manuel Rodríguez Martín	3.4
Montserrat Garcia Pruns	3.1
Free Float	82.7

Financials (Mn EUR)

	2018	2019e	2020e	2021e
Adj. nº shares (Mn)	109.2	107.9	107.9	107.9
Total Revenues	677.1	714.2	743.0	751.6
Rec. EBITDA	64.9	47.2	63.2	68.6
% growth	-7.6	-27.3	33.9	8.5
% Rec. EBITDA/Rev.	9.6	6.6	8.5	9.1
% Inc. EBITDA sector ⁽²⁾	-0.2	8.6	8.5	6.6
Net Profit	44.9	17.5	29.6	34.2
EPS (EUR)	0.41	0.16	0.27	0.32
% growth	3.7	-60.5	68.8	15.8
Ord. EPS (EUR)	0.32	0.16	0.27	0.32
% growth	-28.6	-49.4	68.8	15.8
Rec. Free Cash Flow ⁽³⁾	5.6	0.8	23.2	34.0
Pay-out (%)	14.4	0.0	18.0	18.0
DPS (EUR)	0.06	0.00	0.05	0.06
Net financial debt	126.5	156.7	135.6	119.9
ND/Rec. EBITDA (x)	1.9	3.3	2.1	1.7
ROE (%)	17.3	6.4	10.1	10.8
ROCE (%) ⁽⁴⁾	10.9	5.1	7.7	8.5

Ratios & Multiples (x)

	2018	2019e	2020e	2021e
P/E	5.4	13.7	8.1	7.0
Ord. P/E	6.9	13.7	8.1	7.0
P/BV	0.9	0.9	0.8	0.7
Dividend Yield (%)	2.7	0.0	2.2	2.6
EV/Sales	0.59	0.56	0.53	0.53
EV/Rec. EBITDA	6.1	8.4	6.3	5.8
FCF Yield (%) ⁽⁵⁾	2.3	0.3	9.7	14.2

(*) Unless otherwise indicated, all the information contained in this report is based on: The Company, Thomson Reuters and Lighthouse

- (1) Total volume traded in the share (Mn EUR) -12m vs Mkt Cap. Represents the % of the capitalisation traded -12m.
- (2) Expected EBITDA growth (consensus) for the share's benchmark sector (Eurostoxx 600 Chemicals).
- (3) Based on recurrent FCF. Please refer to Appendix 2.
- (4) Calculated with a theoretical tax rate. Please refer to Appendix 2.
- (5) vs Eurostoxx 600 Chemicals.

Achieve a lot with little

REVENUE GROWTH (+3.5% CAGR 2018-2021E)... underpinned mainly by the increase in production after the start-up of the capacity increases made in 2018 and 2019e, and by a moderate recovery of caustic soda prices (+10% in 2020e and +5% in 2021e).

... BUT WITH LOW MARGINS IN 2019E (EBITDA margin of 6.6%), because of exposure to commodities whose prices are subject to significant cyclical fluctuations (caustic soda, ethylene, methanol and EDC).

2020 IS KEY. A "moderate" recovery of caustic soda prices and the likely normalisation of the prices of the main supplies (principally EDC), will allow a recovery of margins (+2p.p.) and a c.35% rebound in EBITDA. This is our central scenario.

DRAMATIC FALL IN CAPEX. In 2016-2018, ECR implemented an aggressive investment plan (which continues in 2019e; 5.6% CAPEX/Sales) to complete the transition from mercury to membrane technology. After the capacity increases that will come on stream in 2019e, we do not believe the company will require significant additional investment and we expect a normalisation of recurrent CAPEX to levels of 3.4% of sales in 2020e, declining to 2.7% in 2021e (-50% vs 2019e).

AND THE (INEVITABLE) EFFECT OF OPERATING LEVERAGE. The recovery of EBITDA and the normalisation of CAPEX (a driver unrelated to the cycle) imply a strong rebound in FCF: EUR 0.8Mn 2019e vs EUR 23.2Mn 2020e. The FCF Yield would be c. 10% (2020e). An improvement in caustic soda prices of just 10% would unleash a significant improvement in all metrics and is especially evident in FCF. ECR seems well prepared to make the most of any increase in price in its key markets. An eventual return of caustic soda prices to highs of 2018 would take the FCF yield to c.20%.

Relative performance -5y (Base 100)



Stock performance (%)

	-1m	-3m	-12m	YTD	-3Y	-5Y
Absolute	-27.0	-35.2	-44.7	-28.8	168.8	n.a.
vs Ibex 35	-22.4	-33.2	-41.9	-32.4	169.7	n.a.
vs Ibex Small Cap Index	-24.3	-33.8	-37.9	-34.9	85.2	n.a.
vs Eurostoxx 50	-21.8	-34.8	-42.6	-34.8	151.1	n.a.
vs Sector benchmark ⁽⁵⁾	-21.8	-34.0	-41.0	-35.0	131.0	n.a.

Report issued by IEAF Servicios de Análisis, S.L.U. Lighthouse is a project of IEAF Servicios de Análisis, S.L.U.

This report has been prepared on the basis of information available to the public. The report includes a financial analysis of the company covered. The report does not propose any personalised investment recommendation. Investors should consider the contents of this report as just another element in their investment decision-making process. The final two pages of this report contain very important legal information regarding its contents.

Investment Summary

2020: awaiting the fruits of operating leverage

After the trials and tribulations of the economic crisis (net losses from 2009 until 2014), recent years have seen a favourable cyclical backdrop with the main products to which ECR's P&L statement is sensitive (caustic soda in terms of revenue; ethylene and methanol in terms of costs) performing very positively, with an evident impact (ECR is a "pure cyclical") on the P&L statement (EBITDA +45.7% CAGR 2014-2018) and on the stock price which increased 13x between 2014 and highs of 2018.

A) 2014-2018: ECR is taking advantage of the tailwind to change the company (for the better)

Revenues and EBITDA, +2.8% and +45.7% (CAGR 2014 – 2018) with a margin increase of +7.2b.p.

1. **Thanks to the improvement in the EBITDA margin (x4)** caused by the cycle recovery, with caustic soda prices increasing on average by over +60% between 2014 and 2018.
2. **Increased CAPEX**, with c. EUR 107Mn being spent in the last 3 years, mainly on (i) transitioning from mercury to membrane technology (a more efficient technology for producing chlorine and caustic soda), (ii) improving energy efficiency and (iii) increasing the production capacity of products with higher margins.

After the investment of recent years and the ending of mercury technology activity, ECR is the main producer of chlorine in Spain (> 60% of installed capacity) and among the top 10 at the European level

Moderate gearing, with a ND/EBITDA <2x in 2018

3. **The company has not been highly geared.** All these changes have been self-financed, without incurring in risky levels of debt, maintaining ND/EBITDA < 2.0x in 2016-2018. Consequently, the dividend has been recovered. In the last three years, ECR has paid out approx. EUR 47 Mn between dividends and share buybacks, reducing the number of shares by c. 9Mn.
4. **What has changed?** In summary ECR is now sounder. It has gained size (in a sector in which this is essential), has paid its dues in terms of CAPEX and has an optimum capital structure. As a result of these changes, break even (EBITDA) has declined dramatically: the company would only incur EBITDA losses at caustic soda prices -50% vs current levels.

B) 2019e won't be a good year. But 2020e will.

Revenues and EBITDA, +2.6% and +20.5% (CAGR 2019e – 2021e) with an increase in margin of +2.5b.p.

1. **Our central scenario (2019-2021e) includes a "moderate" recovery of caustic soda prices** and a normalisation of the costs of the main supplies and procurements. But this recovery won't happen until next year. In 2019e (caustic soda, -20%) EBITDA will fall (-27%), testing ECR's resilience after the changes of recent years. In 2020e (caustic soda +10%), the company will be able to maintain EBITDA/Sales margins above 8% and generate recurrent FCF of close to EUR 23Mn. What's more, the recovery of FCF, favoured by the logical reduction of CAPEX (-40% 2020e vs 2019e), will take the FCF Yield to 10% in 2020e and 14% in 2021e (vs a FCF Yield for the sector of 5.6%).
2. **A cyclical with a safety net?** The company has a certain resilience but is not unaffected by the cycle nor is the cycle favourable. If caustic soda prices do not recover in 2020e and the price of EDC remains at similar levels to those expected for 2019e, we estimate an EBITDA margin for 2020e similar to 2019e (6.6%) and FCF above EUR 10Mn (FCF yield of 4.2%). In this scenario net debt would be around 3x ND/EBITDA (making a resumption of shareholder remuneration more difficult). However, the company would still be profitable from an operating point of view and financially sound. There are no "cyclicals with safety nets", but ECR's position has improved significantly when it comes to dealing with an eventual adverse macro scenario.

Financial stability to ease an uncertain cyclical environment

In conclusion, high potential with moderate price improvements: ECR is facing an unfavourable cyclical backdrop (2019) in good condition as regards the balance sheet and competitive position, which will act as a buffer if caustic soda prices take time to recover. However, the potential implied by a gradual normalisation of caustic soda prices and the foreseeable moderation of the prices of the supplies to which the company is most sensitive (mainly EDC) is ECR's equity story. This is our assumption for 2020e, a year in which we expect a strong rebound in EBITDA (+34% vs 2019e) underpinned by a moderate recovery of caustic soda (+10%) and EDC (-10%).

However, it is perhaps more interesting to look beyond 2020. What would be the best case scenario for ECR? The return of caustic soda and EDC to 2018 levels would be enough to take EBITDA to EUR 87Mn, with the potential to generate FCF of EUR 44Mn (a FCF yield of 18%). In other words, a more aggressive recovery of prices than envisaged in our central scenario would imply very significant potential as is true for any business with significant operating leverage.

EBITDA, FCF and FCF yield 2020e in a price recovery scenario up to 2018 levels

		EBITDA 2020e		
		Caustic soda		
		10.0%	15.0%	25.0%
External EDC	-10%	63.2	68.3	78.6
	-15%	65.4	70.6	80.8
	-30%	72.1	77.2	87.5

↓

		FCF 2020e		
		Caustic soda		
		10.0%	15.0%	25.0%
External EDC	-10%	23.3	27.5	35.9
	-15%	25.6	29.7	38.1
	-30%	32.3	36.4	44.8

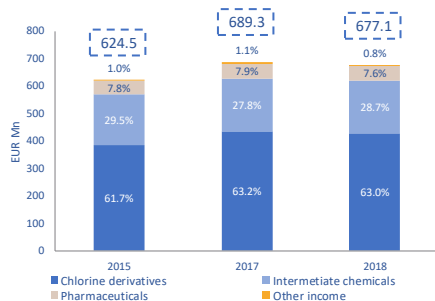
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		FCF yield 2020e		
		Caustic soda		
		10.0%	15.0%	25.0%
External EDC	-10%	9.8%	11.5%	15.0%
	-15%	10.7%	12.4%	15.9%
	-30%	13.5%	15.2%	18.7%

Business description

Chlorine-caustic soda production: ECR's core activity

Chart 1. Revenues breakdown by segment

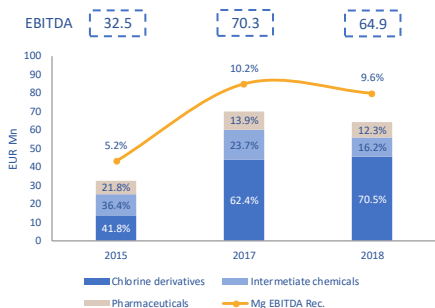


Ercros (ECR) is an industrial group operating in the chemicals sector with a leading position in the main markets in which it is present, supplying products to a wide range of sectors: chemicals, construction, wood, paints, food, pharmaceuticals, water treatment, etc.

With revenue of EUR 677Mn and EBITDA of EUR 64.9Mn in 2018, ECR exports almost half of its sales (47%) to over 100 countries (mainly within the EU). The company operates in three very different segments:

- 1) Chlorine derivatives (70.5% of 2018 EBITDA)**, a strategic business unit based on chlorine. Chlorine and caustic soda are obtained simultaneously in the same production process from sodium chloride dissolved in water and the application of electricity (electrolysis), in a proportion of 1 tonne of chlorine per 1.1 tonnes of caustic soda, a combination known as an electrolytic chlorination unit (ECU), whose margin depends on: (i) the sale price of the caustic soda produced and of the various chlorine derivatives (mainly PVC); and (ii) the price of electricity (c. 44% of the cost of production) and of other raw materials (such as EDC or ethylene) required to produce the various chlorine derivatives.

Chart 2. EBITDA breakdown by segment



While the caustic soda is marketed on a European scale, the chlorine (for safety and efficiency reasons) is mainly consumed in the plant to produce chlorine derivatives. Some 60% of the chlorine produced by ECR is used to manufacture derivative products (sodium hypochlorite, hydrochloric acid, TCCA and the EDC/VCM/PVC chain); the rest is piped to a single customer, with a supply contract that runs until 2020¹. Once this contract expires, ECR will be able to use 100% of the chlorine for internal use and so reduce the external EDC it needs for the production of PVC.

Chart 3. Chlorine process scheme

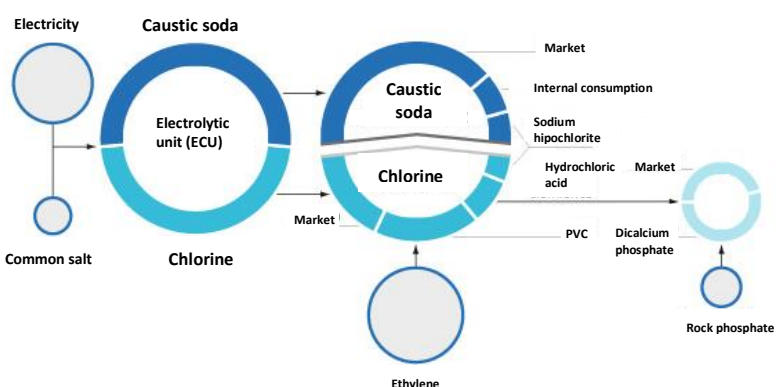


Chart 4. Top 5 Revenues

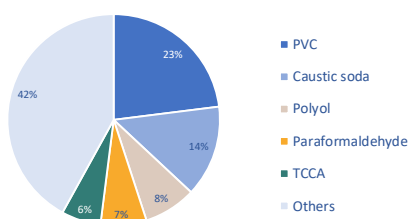
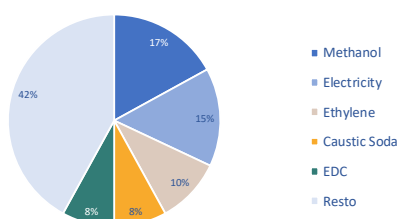


Chart 5. Top 5 Cost of goods sold



- 2) Intermediate chemicals (16.2% of 2018 EBITDA)**, the core product of this division being formaldehyde, whose main raw material is methanol (40% of the division's total costs). ECR is able to pass on the volatility of this division's raw material prices to the end client in order to sustain the business margin.

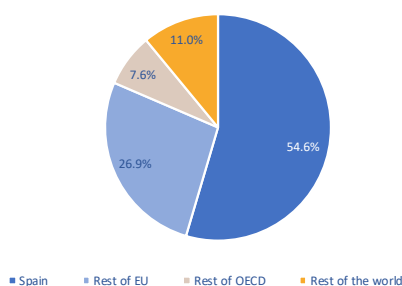
Some 81% of the formaldehyde produced is used to manufacture the other products sold by the company (with higher added value). ECR is world leader in paraformaldehyde (c. 6.5% of revenues) and is also the leader in the fusidic acid and fosfomicin markets.

¹ For more details please see the Risks section.

- 3) **Pharmaceuticals (12.3% of 2018 EBITDA)**, which manufactures active ingredients (mainly erythromycins, fusidic acid and fosfomicins) is the segment with the higher EBITDA margin (> 15% during 2018). The significant weighting of exports in this business (approx. 90% of revenue) means its margin fluctuates with the dollar exchange rate against the euro.

The complexity of production processes and the quality requirements of the regulating bodies result in a long-term relationship between ECR and its customers.

Chart 6. Revenues breakdown by geography



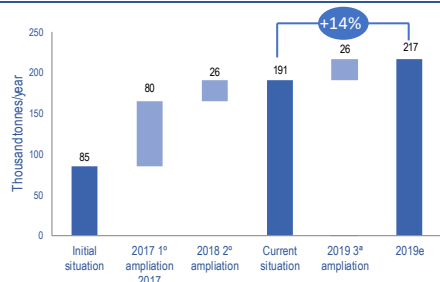
European globality.

ECR is based in Barcelona and has 8 production plants in Spain (4 for the chlorine derivatives division, 3 for intermediate chemicals and 1 for pharmaceuticals). In 2018 exports accounted for 47% of revenue, with Europe and Spain being the main destinations for sales (c. 80% together). The revenue mix has not changed in the last decade.

By business line, the pharmaceuticals division is the business with the highest % of its revenues from abroad (c. 90%), followed by the intermediate chemicals division (c. 65%). However, the main market for the chlorine derivatives market is the domestic one (c. 70% of revenue), where ECR is leader with 62% of the total installed chlorine production capacity in Spain.

By geography, the EU is the main destination of the Group's exports, accounting for 26.9% of consolidated sales. Revenues in this region have remained stable (-0.3% vs 2017). The main destinations for ECR's exports are France, Italy and Portugal (21%, 11% and 7%, of total exports, respectively). Also, given the nature of ECR's business, the dollar is the main currency to which the Group is exposed (net exposure of c. EUR 35Mn in 2018).

Chart 7. Nominal Chlorine production capacity with membrane technology



The reorganisation of the chlorine derivatives division has been completed

In 2016, ECR began "Plan Act", aimed at complying with European regulations prohibiting the production of chlorine with mercury based technology (71.5% of production capacity in 2015) from December 2017 (leading to the closure of the Flix and Cardona plants). Initially, the plan envisaged increasing the capacity for the production of chlorine using membrane technology² by approx. 50,000 tonnes/year with respect to that already available in 2016 (85,000 tonnes/year), but the sector's favourable prospects have led ECR to increase capacity by 106,000 tonnes/year, taking chlorine production with membrane capacity to 191,000 tonnes/year at the end of 2018 (vs 85,000 tonnes/year in 2015: when membrane technology only represented 28.5% of total capacity).

The technological change and adapting the chlorine-caustic soda plants to membrane technology has required significant investment (approx. EUR 100Mn between 2016 and 2018). Currently, the technological adaptation plan is at a very advanced stage, with an increase of 26,000 tonnes/year pending (starting during 3T19) that will result in total chlorine production capacity of 217,000 tonnes/year (+14% vs the 2018 close), with a similar production levels prior to the regulatory change (due to the higher efficiency of membrane vs mercury technology) and thereby completing the process of technological transition and adaptation.

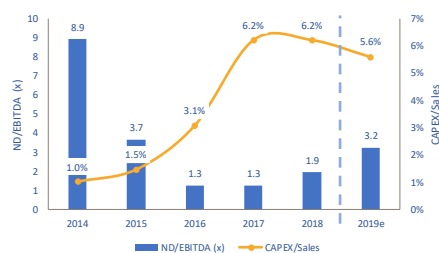
Chart 8. Nominal Chlorine production capacity by plant

tn/year	Initial situation	Capacity increase			
		2017-2018	2018	2019	2019e
Vila-seca I	55,000	65,000	26,000	26,000	172,000
Sabiñánigo	30,000	15,000	-	-	45,000
Total	85,000	80,000	26,000	26,000	217,000

We believe that the capacity increases carried out in recent years have improved ECR's competitive capability (especially in the Spanish market).

² In addition to being considered the best available technology (BAT), it has a higher utilisation ratio, lower electricity consumption and lower fixed costs (implying higher productivity).

Chart 9. ND/EBITDA vs CAPEX/Sales

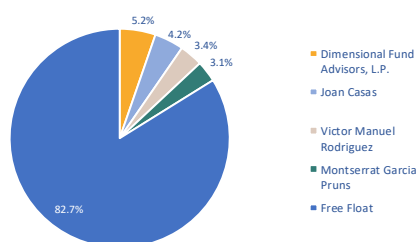


Sustainable gearing despite the significant investment effort

ECR has a reasonable level of debt: ND/EBITDA (<2x during 2018), despite the heavy investment of the last 3 years. In the last year, net debt has increased by EUR EUR 37Mn (to EUR 126.5Mn at the 2018 close), mainly because of the investment required for the technological modernisation and capacity increase plan and the impact of the IFRS 16 application (+ EUR 19,2Mn).

Moreover, in the last 3 years, ECR has maintained a demanding shareholder remuneration policy (c. EUR 40Mn between 2016 and 2018). The shareholder remuneration policy establishes (among other conditions) limits related to the level of debt (ND/EBITDA < 2.0x). At present, balance sheet management, the capital structure and the shareholder remuneration policy do not seem, in principle, to be either an opportunity or a risk. However, given the current business situation (EBITDA 2019e -30% vs 2018 and a DN / EBITDA for 2019e > 3x), we consider that during 2019e it will be necessary to temporarily interrupt the shareholder remuneration.

Chart 10. Shareholders structure



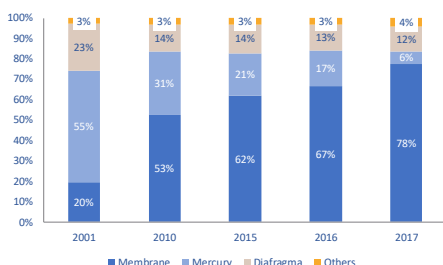
Free float > 80%: with no controlling shareholder

There is no hard core of shareholders with a stake of over 5% and with no significant shareholdings among board members (Antonio Zabalza, the CEO of ECR, holds 0.1% of capital), there is no controlling shareholder (free float > 80%).

As part of its shareholder remuneration policy, ECR holds 2.7% of share capital (investment made during 2018: EUR 13.9Mn; average price of EUR 3.9/share) for its cancellation.

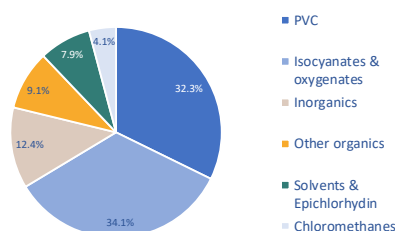
Chlorine-caustic soda: sound fundamentals (but depressed margins)

Chart 11. Chlorine production capacity in Europe breakdown by technology



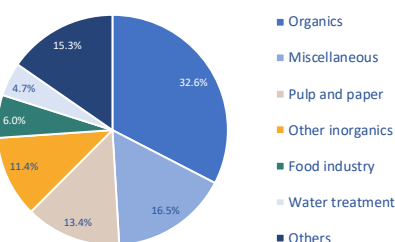
Source: Eurochlor

Chart 12. Chlorine primary uses in Europe



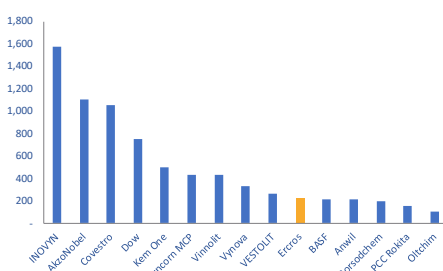
Source: Eurochlor

Chart 13. Caustic soda primary uses in Europe



Source: Eurochlor

Chart 14. Chlorine main producers in Europe with membrane technology



Source: Eurochlor

In the EU, the chemicals industry represents 1.1% of GDP and in recent years has experienced various regulatory changes which have directly impacted its global competitiveness. The main changes include energy policy (one of the Achilles' heels of the European industry vs China or the US) and the technological change, with the end of the production of chlorine with mercury technology at the end of 2017 (21% of total capacity in Europe in 2015).

As a result of the prohibition of mercury technology, c. 7% of chlorine production capacity in Europe was lost (mainly in Spain where almost 60% of capacity was closed down), making ECR the main producer of chlorine-caustic soda in Spain (> 60% of installed capacity) and among the top 10 at the European level (see chart 14).

In 2018, total chlorine production capacity in EU countries was 12 million tonnes. Germany is the largest producer with 43% of joint capacity; followed by France, with 12%; Belgium, with a little over 8%; the Netherlands, with almost 7%, the UK with 4% and Spain with close to 2.5% (Eurochlor).

The chlorine-caustic soda business: Highly correlated to industrial activity

In Europe, chlorine is involved in the manufacture of c. 60% of basic chemical products, its main use being in the production of PVC (c. 32%; chart 12), one of the most versatile derivatives of plastic used in the construction, automotive, and electronics industries, giving it a highly cyclical nature.

As chlorine and caustic soda are obtained simultaneously in a single production process, for manufacturers of PVC (such as ECR), caustic soda is a by-product that is sold directly to the market. This is one of the main dynamics of the chlorine-caustic soda business, as, in general, when demand for chlorine is high (a demand which is fairly elastic, driven by the construction cycle and demand for PVC), caustic soda production outstrips demand (less elastic), leading to a decrease in its price and in the profitability of the chlorine-caustic soda manufacturing process.

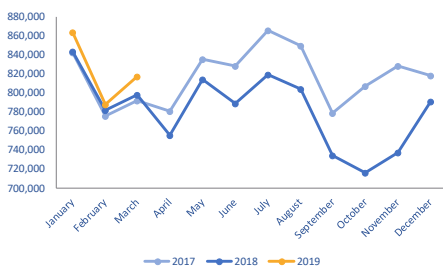
As a whole, the chlorine-caustic soda market has high entry barriers, among which we would point up: (i) large capital requirements (to set up high volume production plants to exploit scale economies), (ii) the need for complete vertical integration to control the supply of raw materials, and (iii) strict environmental regulations. Given these significant capital requirements, chemical companies tend to be large businesses (the average market cap for the EuroStoxx 600 Chemicals index is approx. EUR 16,000Mn).

Current sector uncertainty: technological change and price fluctuations

In the first few months of 2018, chlorine-caustic soda production was relatively stable compared to 2017 (+4.6% vs 2016; still 7.5% below levels prior to the cycle peak of 2007), as despite the reduction in capacity due to the closure of plants using mercury technology (-7% of capacity in Europe), utilisation rates for European plants reached levels not seen since the peak of the PVC demand cycle in 2007. With an average utilisation rate of 86% (vs an average of 80% in the last ten years) in the first half of 2018.

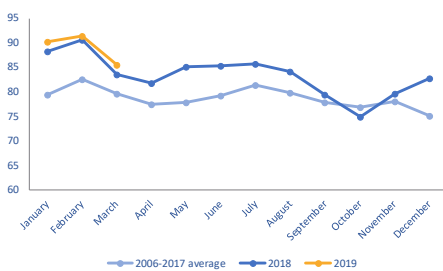
Latest Eurochlor figures show a change in trend for the production of chlorine-caustic soda in Europe in the second half of 2018 (chart 16), due to: (i) a decline in utilisation in September and October due mainly to maintenance stoppages in Europe, (ii) aggravated by less available capacity after the closure of the mercury plants. This shows that falls in utilisation rates to average levels (approx. 80%) would cause an even larger reduction in chlorine-caustic soda production in Europe.

Chart 15. Monthly chlorine production in Europe (tonnes)



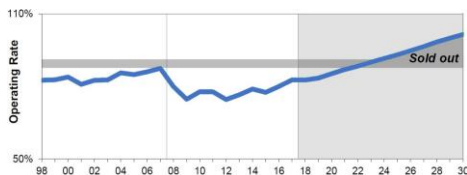
Source: Eurochlor

Chart 16. Monthly operating rate in Europe vs average (%)



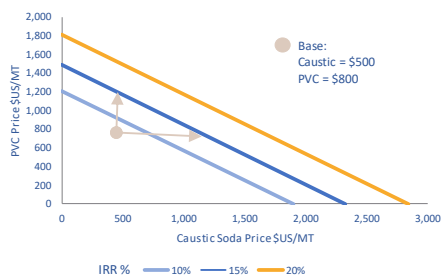
Source: Eurochlor

Chart 18. Chlor Alkali operating rate (%)



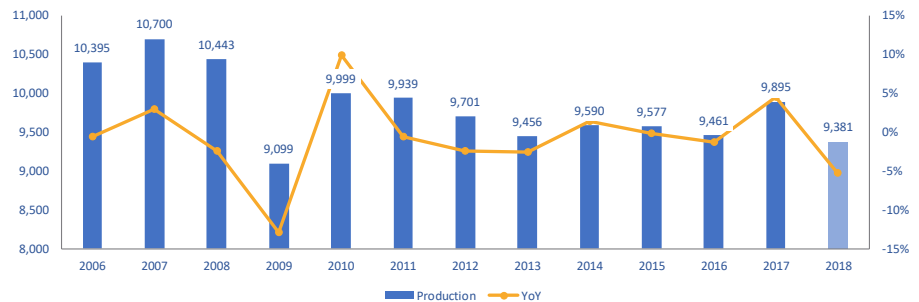
Source: IHS

Chart 19. Caustic soda and PVC Price impact in on Chlor Alkali Project returns



Source: IHS

Chart 17. European chlorine production (kilotonnes/year)



Source: Eurochlor

However, despite the fall in chlorine production in 2018 vs 2017 (-4.3%), in the first quarter of 2019 caustic soda prices have continued to fall, by approx. 200€ from 2018 highs (c. -30%), while utilisation rates in 2019 remain at highs (c. 90% vs an historical average of 78%; chart 16).

Looking beyond 2019: Chlorine, caustic soda and PVC fundamentals remain positive (and will require additional investments)

The chlorine-caustic soda industry is facing a vastly different situation in 2019 to that experienced in 2018, with the trend begun in 4Q18 continuing in 1Q19 with: (i) a continual reduction in caustic soda prices (-30% vs 1Q18) and (ii) an increase in the cost of raw materials used to produce PVC (such as external EDC), hitting that product's margins (23% of ECR's sales).

In conclusion: momentum is not good for the chlorine-caustic soda industry but the fundamentals underpinning demand for the main uses of chlorine and caustic soda remain positive. According to IHS reports, global demand for chlorine and caustic soda is expected to increase by 21Mn and 23Mn tonnes respectively between 2018 and 2030 (+2.0% CAGR), due to higher demand for PVC (+3.1% CAGR 2018-2030), so over the long term growth in demand for chlorine-caustic soda is expected to boost prices.

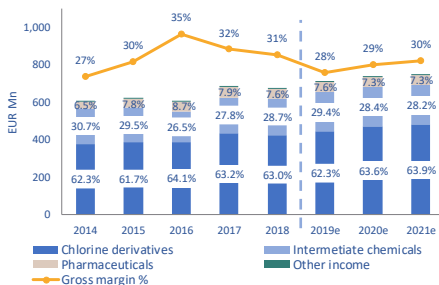
Capacity will have to be increased to cope with future demand. According to IHS data, to produce 1Mn tonnes of PVC a chlorine-caustic soda plant requires c. USD 5-6Bn in investment and takes 4-5 years to build. At present there are no large capacity increases under construction because, at current prices, the average return on a chlorine plant is below 10% (chart 19) so caustic soda prices need to rise to warrant additional investment in the sector.

Moreover, current production plant utilisation rates remain exceptionally high (90% in 1Q19). Utilisation rates close to average levels would result in a significant reduction in chlorine-caustic soda production in Europe and so in the supply of caustic soda, directly impacting its price (demand is less elastic than for chlorine).

Finally, in the short/mid term, the maintenance stoppages programmed for the second quarter of 2019 (and the difficulty of maintaining current utilisation rates close to 90%), will lead to a further reduction in chlorine-caustic soda production in Europe, ahead of a possible recovery of caustic soda prices in 2H19 which at the end of 2019 we expect to be 20% below the average price in 2018 (vs -30% at present).

Margins to pick up (but in 2020e)

Chart 20. Revenue mix (2014-2021)



Note: Gross margin includes expenses related to: (i) raw materials, (ii) supplies, (iii) transport and (iv) income/expense related to changes in inventory.

1Q19 results (6 May 2019) show growth in ECR's revenue (+5.2% vs 1Q18), underpinned mainly by the increase in production from the capacity increases made in 2018 (caustic soda, PVC and polyols) coming on stream, evidencing that the replacement of mercury technology production capacity with membrane technology has been "completed" (one final increase in membrane technology capacity of 26,000 tonnes/year that will come on stream in 3Q19 is still pending; +14% vs current capacity).

The revenue growth seen in 1Q19 was accompanied by a narrowing of margins (-6.0p.p. vs 1Q18; with a reduction in EBITDA of 37.5%), due mainly to: (i) a decline the price of caustic soda and (ii) higher supply and procurement costs, especially for EDC. This had a negative impact on PVC and the chlorine derivatives division's margins (70.5% of 2018 EBITDA).

ECR's 1Q19 results were indicative of sector momentum (low prices, higher raw material costs and a general slowdown in activity), with a narrowing of margins in line with that being experienced by the European chemical sector (c. -2p.p. -12m), despite the traditional seasonality of ECR's business in the first few months of the year, with revenue being historically higher in the first half of the year than in the second (especially thanks to 2Q; chart 21).

Chart 21. Rec. EBITDA seasonality (2015-1T19)

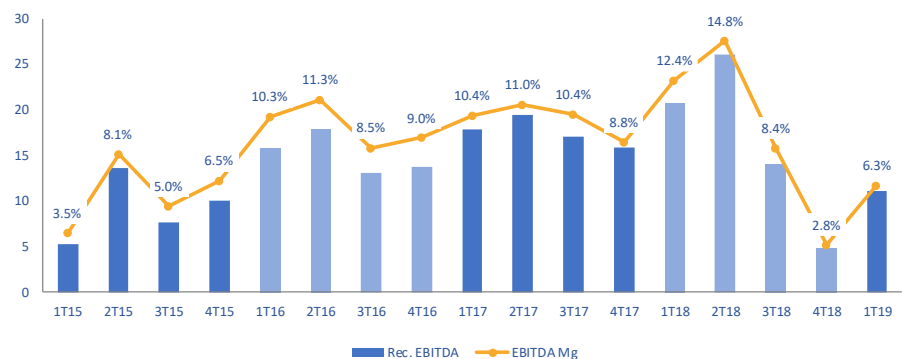
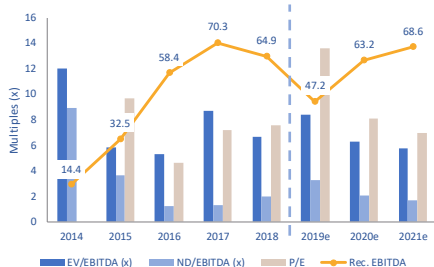


Chart 22. Gearing and growth vs multiples

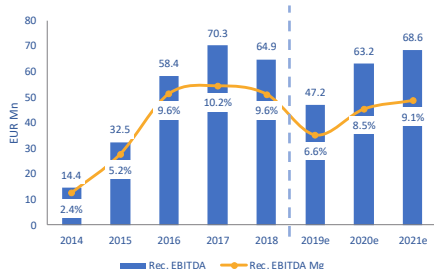


Now there is only one question: Do the margins seen in 4Q18 and 1Q19 correspond to a normalised business situation? Can this situation be projected over the long term? Answering this question requires a minimal analysis of the sensibility of ECR's P&L statement to variations in the prices of its main raw materials that should allow us to assess whether a "recovery of margins" is possible.

2019e-2021e: We foresee a recovery of margins that is "hyper-dependent" on a recovery of caustic soda prices and a reduction in the cost of EDC

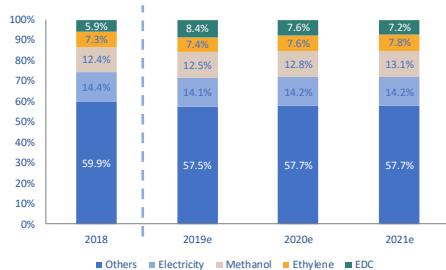
The macroeconomic and sector backdrop in 1Q18 was exceptionally positive, with high caustic soda prices in Europe (a product which ranks second in importance in terms of contributing to ECR's revenue) that rose c. EUR 250 vs 2017 (+40%; given the uncertainty surrounding the closure of production capacity in Europe in December 2017), and very low ECD prices. In 1Q19 the scenario was totally the opposite: (i) caustic soda prices fell c. EUR 200 (c. -30% vs 1Q18) and (ii) EDC prices doubled (vs 1Q18).

Chart 23. Rec. EBITDA and Rec. EBITDA margin



In 2019e we expect a 5.5% increase in revenue (to EUR 714Mn; +EUR 37Mn vs 2018), mainly thanks to increased production capacity for caustic soda, PVC and polyols (positive impact of c. EUR 45Mn) that together with a small increase in prices of the intermediate chemicals and pharmaceuticals divisions (+3.6% and +2.0%, respectively), should offset the negative impact of the decline in caustic soda prices (-EUR 19Mn).

Chart 24. COGS breakdown 2018-2021e



We expect caustic soda prices to begin to pick up in the second half of 2019: ending 2019e with a decline of c. -20% vs 2018 (vs -30% at present).

On the costs side, we expect the increase in EDC prices seen in 1Q19 to continue (negative impact of EUR 14Mn on 2019e EBITDA), these being +50% vs the average for 2018. All this, in addition to rising raw material costs (methanol, electricity and ethylene; impact of EUR 6Mn on EBITDA), will lead to a fall of c. 30% in EBITDA vs 2018, with EBITDA at the end of 2019e of EUR 47.2Mn.

However, we expect this situation to begin to reverse in 2020e, with a recovery of caustic soda prices (+10% vs the price estimated for 2019e) and a likely moderation of the prices of supplies, especially EDC (-10% vs 2019e). All this (together with fully operational production capacity from the second half of 2019e), will help to improve the 2020e EBITDA margin +2p.p (2020e EBITDA EUR 63.2Mn; +8.5% vs 2019e). Any fluctuation in caustic soda prices or in those of ECR's main supplies will have a significant impact on EBITDA (for more details see Chart 25).

Finally, we expect the higher chlorine production capacity from the second half of 2019 to allow external EDC to be replaced by the company's own production helping to reduce sensitivity to fluctuations in the price of that raw material. This should continue to decrease until the termination of the sales contract with the company's main client in 2020 (c. 40% of total chlorine production is sold to this client; the termination of this contract having already been agreed and so final).

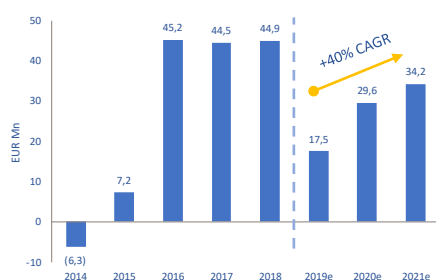
Intermediate Chemicals and Pharmaceuticals (2019e): mitigate the impact on margins of the fall in caustic soda prices

Contrary to the chlorine derivatives business, the products sold by the intermediate chemicals (16.2% of 2018 EBITDA) and pharmaceuticals (12.3% of 2018 EBITDA) divisions do not show such large variations.

Although the margin of the intermediate chemicals division is sensitive to raw materials such as methanol and electricity, we believe the start-up of the production capacity increases made in 2018 in the division, together with low single-digit growth in the prices of its main products (paraformaldehyde and polyols) will boost revenues by 8.1% vs 2018.

The pharmaceuticals division will also benefit from production capacity increases in fosfomycins and erythromycins, which together with a small increase in their prices (+2%) will generate growth of 6.5% in the division's revenues (the division with the highest EBITDA margin: > 15% in 2018). This will help to reduce the impact of the loss of margin of the chlorine derivatives division.

Chart 25. Net profit evolution



Note: 2017 includes EUR 21.7Mn non recurrent expense related to mercury based technology abandonment

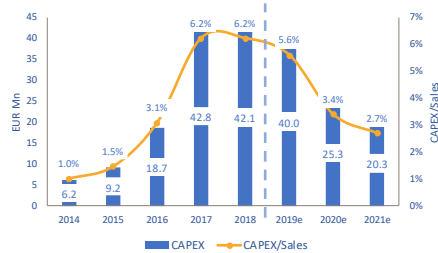
Net profit: 2019 (-50%) due to the decline in EBITDA and the disappearance of the tax credits of the last 3 years.

The main P&L headings the EBIT line in 2018 are: (i) financial expenses (EUR 7Mn) and (ii) tax revenue (EUR 6.9Mn). In the period 2015-2018 the total number of shares was reduced by 5.5% through a buyback of shares, which has helped to improve the EPS (+4% vs 2017; vs +0.9% increase in net profit).

In recent years, ECR's net profit has been boosted by the recording of deferred tax assets (EUR 10.9Mn and EUR 15.9Mn in 2018 and 2017, respectively). However, for the coming years we have assumed that ECR will not use any further tax losses, so we have included an effective tax rate of c.20% for 2019e, 2020e and 2021e. Currently, ECR has unused prior years' deferred tax assets in an amount of EUR 76Mn. Their use would result in a significant reduction in the tax expense.

Consequently, the main lever of net profit growth for 2019e-2020e will be the recovery of EBITDA (+20.5% CAGR 2019e-2020e), which together with financial expenses remaining c. EUR 6Mn, will boost net profit to EUR 34Mn in 2021e (+40% CAGR).

Chart 26. CAPEX vs CAPEX/Ventas



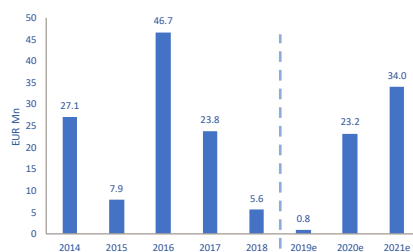
CAPEX 2019e: Investment continues

ECR has invested an average of 1.5% of the revenue generated in 2010-2016, the year which saw the start of the investment plan aimed mainly at increasing membrane technology production capacity to replace the closure of mercury technology capacity (investment between 2017 and 2018 of c. EUR 85Mn: 6.2% of sales).

In 2019e investment continues, mainly on capacity increases in the production of chlorine (+26,000 tonnes/year; slated to come on stream in 3Q19) and TCCA (+6,500 tonnes/year for the end of 2019).

In 2020e and 2021e, we do not think larger CAPEX will be required. We estimate CAPEX of EUR 25.3Mn in 2020e, normalising in 2021e at EUR 20.3Mn (2.7% of sales; still above the historical average but below the sector average of 6%).

Chart 27. Rec. Free Cash Flow

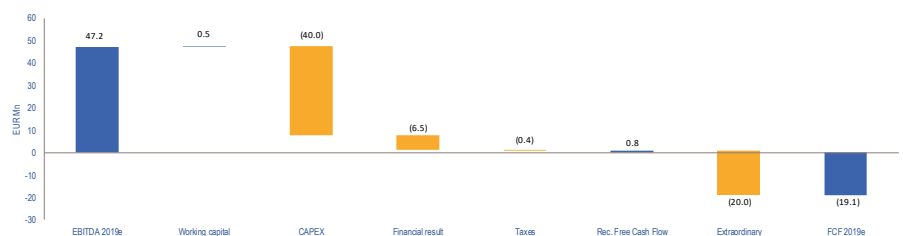


Free Cash Flow 2019: penalised by the performance of EBITDA and CAPEX

The good progress of the business in 2017 and 2018, when record figures for recurrent EBITDA were achieved (EUR 70Mn and EUR 65Mn, respectively), has enabled ECR to finance its ambitious “Plan Act” (for adapting to the technological change) almost exclusively with the cash generated by the business.

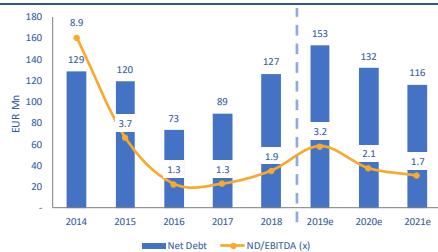
In 2019e recurrent FCF will continue to be affected mainly by CAPEX (EUR 40Mn) and a practically zero cash outflow for the payment of taxes (due to the EUR 4.4Mn tax expense being offset against payments on account). We have also taken into account the EUR 20Mn extraordinary cash outflow for the provisions already recorded to cover the disassembling of the mercury plants and the rehabilitation of the land (mainly El Hondón, Cardona and Flix).

Chart 28. 2019e FCF impacts



The recovery of EBITDA in 2020e, and smaller CAPEX requirements (- EUR 20Mn vs 2019e), will result in recurrent FCF of c. EUR 23Mn in 2020e (a FCF yield of 9.7% vs a sector yield of 5.5%).

Chart 29. Net Debt vs ND/EBITDA



Note: 2018 Net debt figure has been adjusted for IFRS 16 impact (lending creditors increase of EUR 19.2 million). Lease expenses (c. EUR 7Mn) remained above EBITDA as other operating costs.

Financial structure: Resilient to an unfavourable cycle

ECR’s debt ratios have remained low for the last 3 years, with ND/EBITDA always below 2.0x (even in 2018, when the application of IFRS 16 led to an increase in ND of EUR 19.2Mn; +17%). However, given the inherent cyclicity of the business, we find years such as 2014, in which smaller industrial activity together with a reduction in caustic soda and PVC prices led to a decline in EBITDA of c. 50% (2014: ND/EBITDA 8.9x).

ECR’s present financial position is especially interesting in the current sector context, as, despite its adverse conditions: (i) falling caustic soda prices and (ii) rising prices of its main supplies and procurements, ND is “apparently” under control at levels of ND/EBITDA < 3.5x. Moreover, the significant investments required to adapt production capacity to membrane technology in the last 3 years have been “completed”, which together with the foreseeable normalisation of the main raw materials to which ECR’s P&L statement is sensitive, will allow ND/EBITDA to return to levels of < 2x from 2020e.

Interruption of the shareholder remuneration policy in 2019e

ECR has agreed to propose to the AGM the payment of a dividend against 2018 earnings of EUR 0.06/share (+20% vs 2018), a payout of 14.4% (yield of 2.7%).

ECR has a self-imposed maximum level of 2.0x ND/EBITDA to pay a dividend. Given the current state of the business (with a decline in 2019e EBITDA of c. 30% and ND/EBITDA >3x), we believe that it will be necessary to temporarily interrupt shareholder remuneration in 2019e. However, we expect this to resume in 2020e: we assume a payout of 50% for 2020e (18% in respect of a dividend and 32% in a share buyback), payable in 2021.

In conclusion: The recovery of margins is feasible (and is our central scenario) but depends almost exclusively on a normalisation of prices

Our central scenario includes a “moderate” recovery of caustic soda prices (and a normalisation of the costs of the main supplies and procurements) in 2020e. In this scenario we think the company will be able to maintain margins (EBITDA/Sales) above 8% and generate recurrent FCF of close to EUR 23Mn. This scenario is hyper-dependent on prices, without there being other business levers that could offset a disappointment in caustic soda and raw materials.

Chart 30. EBITDA in an unfavorable cyclical environment

		EBITDA 2020e		
		Caustic soda		
External EDC		10.0%	5.0%	0.0%
	-10%	63.2	58.1	52.9
	-5%	61.0	55.9	50.7
	0%	58.8	53.6	48.5

Could we see negative EBITDA again?

The last time ECR generated negative EBITDA was in 2009 (EUR -14Mn) although then ECR was a totally different company. After the rationalisation of activity and optimisation of costs with (i) 4 factories having been closed, (ii) the headcount having been reduced by approximately 500 employees and (iii) mercury technology having been replaced by membrane technology (lower electricity consumption and fewer fixed costs; more efficient) we believe the company now has a higher “floor” to protect itself during the down phase of the cycle.

The company has a certain resilience but is not unaffected by the cycle nor is the cycle favourable. Cyclicity is inherent to the chlorine-caustic soda sector so the last question to answer is what can be expected in a worse context than our central scenario. What would happen if the normalisation of prices envisaged in our estimates were to take longer? If caustic soda prices do not recover in 2020e and the price of EDC remains at similar levels to those expected for 2019e, we estimate an EBITDA margin for 2020e similar to 2019e (6.6%) and FCF above EUR 10Mn (FCF yield of 4.2%). In this scenario net debt would be around 3x ND/EBITDA (making a resumption of shareholder remuneration more difficult). However, the company would still be profitable from an operating point of view and its financial structure sound.

Chart 31. EBITDA, FCF and FCF yield in a price recovery scenario

		EBITDA 2020e		
		Caustic soda		
External EDC		10.0%	15.0%	25.0%
	-10%	63.2	68.3	78.6
	-15%	65.4	70.6	80.8
	-30%	72.1	77.2	87.5

↓

		FCF 2020e		
		Caustic soda		
External EDC		10.0%	15.0%	25.0%
	-10%	23.3	27.5	35.9
	-15%	25.6	29.7	38.1
	-30%	32.3	36.4	44.8

↓

		FCF yield 2020e		
		Caustic soda		
External EDC		10.0%	15.0%	25.0%
	-10%	9.8%	11.5%	15.0%
	-15%	10.7%	12.4%	15.9%
	-30%	13.5%	15.2%	18.7%

What would happen in a far more negative cyclical context? We only estimate EBITDA < 0 with declines in the caustic soda price of > 50% vs 2019 (a fall of approximately EUR 300 per tonne, which would leave it close to historical lows of the last 10 years).

And in the best of worlds? (Recovery of 2018 price levels)

If the fundamentals of the chlorine-caustic soda market were to remain positive and demand stable, we expect a pick-up in caustic soda prices in 2020e of approx. EUR 65 (+10% vs 2019e). However, with capacity utilisation in Europe at historical highs (90% in 1Q19), a normalisation towards utilisation rates close to their historical average (80% in the last 10 years) would imply a surplus of demand that would have to be met with price increases (due to the inelasticity of caustic soda demand).

What would it take for prices to recover to levels seen in 2018? To recover 2018 price levels, in 2020 (vs 2019e) there would have to be a simultaneous increase in caustic soda prices of approx. +25% and a reduction in the cost of EDC of approx. -30% from current levels. A normalisation of the prices of both raw materials to the ranges seen in 2018 would mean generating EBITDA of EUR 87Mn, with a FCF yield of 18%.

Valuation inputs

Inputs for the DCF Valuation Approach

	2019e	2020e	2021e	Terminal Value ⁽¹⁾		
Free Cash Flow "To the Firm"	(17.9)	26.6	36.8	620		
Market Cap	239.3	At the date of this report				
Net financial debt	126.5	Debt net of Cash (last financial year)				
					Best Case	Worst Case
Cost of Debt	4.0%	Net debt cost			3.0%	4.5%
Effective tax rate (T)	20.0%	T (Normalised tax rate)			=	=
Net debt cost	3.2%	Kd = Cost of Net Debt * (1-T)			2.4%	3.6%
Risk free rate (rf)	1.4%	Rf (10y Spanish bond yield)			=	=
Equity risk premium	6.0%	R (own estimate)			5.5%	6.5%
Beta (B)	1.4	B (Thomson Reuters)			1.4	1.5
Cost of Equity	9.5%	Ke = Rf + (R * B)			9.1%	11.2%
Equity / (Equity + Net Debt)	65.4%	E (Market Cap as equity value)			=	=
Net Debt / (Equity + Net Debt)	34.6%	D			=	=
WACC	7.3%	WACC = Kd * D + Ke * E			6.8%	8.5%
G "Razonable"	1.0%				1.5%	0.5%

(1) Terminal value calculated over recurrent Free Cash Flow "to the Firm" in the last estimated year. For further details, please refer to appendix 2.

Inputs for the Multiples Valuation Approach

Company	Ticker	Reuters	Mkt. Cap	P/E 19e	EPS 19e-21e	EV/EBITDA 19e	EBITDA 19e-21e	EV/Sales 19e	Revenues 19e-21e	EBITDA/Sales 19e	FCF Yield 19e	FCF 19e-21e
BASF SE	BASFn.DE		54,066.0	11.0	5.9%	7.7	8.4%	1.2	4.0%	15.1%	7.1%	2.1%
Solvay	SOLB.BR		8,872.7	9.9	5.6%	5.4	4.4%	1.2	3.6%	21.4%	8.9%	5.4%
Covestro AG	1COV.DE		7,179.1	7.7	-6.8%	3.9	-0.8%	0.6	2.7%	15.7%	8.0%	-27.9%
Akzo Nobel AS	AKZO.AS		17,142.9	19.3	14.5%	12.6	11.5%	1.7	2.7%	13.4%	3.0%	20.0%
Europe				11.9	4.8%	7.4	5.9%	1.2	3.3%	16.4%	6.8%	n.a.
DowDuPont	DWDP.K		61,395.3	2.7	-26.7%	5.7	-27.5%	1.2	-32.2%	21.6%	13.7%	-24.1%
Olin Corp	OLN		2,895.1	9.6	17.9%	5.0	6.3%	0.9	-0.6%	18.0%	12.7%	30.5%
Westlake	WLK		6,597.2	8.8	1.7%	5.0	2.3%	1.1	3.4%	22.7%	9.9%	1.6%
USA				7.0	-2.4%	5.2	-6.3%	1.1	-9.8%	20.7%	0.1	n.a.
Ercros	ECR.MC		239.3	13.7	39.8%	8.4	20.5%	0.56	2.6%	6.6%	0.3%	n.a.

Free Cash Flow sensitivity analysis (2020e)

A) EBITDA and EV/EBITDA sensitivity to changes in EBITDA/Sales

Scenario	EBITDA/Sales 20e	EBITDA 20e	EV/EBITDA 20e
Max	9.5%	70.6	5.6x
Central	8.5%	63.2	6.3x
Min	7.5%	55.8	7.1x

B) Rec. FCF and Rec. FCF - Yield sensitivity to changes in EBITDA and CAPEX/sales

Rec. FCF EUR Mn	CAPEX/Sales 20e			Scenario	FCF/Yield 20e		
EBITDA 20e	2.4%	3.4%	4.4%		Max	15.9%	12.8%
70.6	38.1	30.7	23.2	Central	12.8%	9.7%	6.6%
63.2	30.7	23.2	15.8	Min	9.7%	6.6%	3.5%
55.8	23.2	15.8	8.4				

What could go wrong?

We consider risks to be those that could have a significant negative impact on our projections, mainly those for operating profit and free cash flow:

1. **Margin improvement dependent on a recovery in caustic soda prices** Caustic soda is one of the main drivers of the profitability of ECR's business (c. 14% of 2018 revenues), with an approx. impact on EBITDA of EUR 14Mn for each EUR 100 fluctuation in price (approx. 15% of the current price). In 2020e we estimate a c. 10% recovery in caustic soda prices from current levels, with a positive impact of c. EUR 8.4Mn on EBITDA. A slower recovery would have a negative impact on projected profitability.
2. **Business margins highly sensitive to variations in the price of certain raw materials:**
 - (i) **Electricity** can amount to c. 14% of the cost of production. Although the caustic soda market is European, ECR's electricity cost is that of the Spanish market, so any fluctuation in this has an impact on ECR's competitive position in Europe (the natural market for products from the electricity-intensive plants). A 10% increase in the price of electricity (vs 2018) would have a negative impact of EUR 6Mn on 2019e EBITDA.
 - (ii) **The price of EDC** one of the main raw materials used to produce PVC (c. 8% of total sales costs), whose price has doubled between 2018 and 2019. Our projections include a 10% normalisation of the EDC price in 2020e (with a positive impact on EBITDA of c. EUR 4.7Mn).
 - (iii) **An increase in the price of oil and its derivatives**, especially ethylene, and a possible rise in price of other raw materials such as methanol or natural gas, are significant ongoing uncertainties that could impact the current P&L statement.
3. **Impact of a reduction in revenues from the interruptible power supply service** The interruptible power supply service that ECR provides to Red Electrica de España (REE) consists of the possibility of the latter interrupting the supply of electricity to ECR's electrolytic plants. Since 2018 the price established for this service has been falling (c. -45% between 2017 and 2018). Our projections do not include further reductions in the amounts received for this service. We estimate that an additional 10% reduction would have an impact of c. EUR 0.7Mn on 2019e EBITDA.
4. **Competition from emerging markets such as China and India.** Laxer regulations, less demanding environmental requirements vs the European market and lower labour and power costs are key factors affecting ECR's competitive position going forward. A situation aggravated by the fact that ECR's main products are commodities.
5. **Forex risk.** ECR's main forex exposure is to the dollar (12.8% of sales and 12.4% of procurements), with a net exposure in 2018 of c. EUR 35Mn arising from the intermediate chemicals and pharmaceuticals businesses. In 2018 the depreciation of the USD had a negative impact on EBITDA of c. EUR 1.5Mn. A depreciation of the dollar to levels of 1.30 euro/dollar (+10% from the 2018 average) would have a negative impact of approximately EUR 3.3Mn on 2019e EBITDA.
6. **Risk from regulatory changes:** This is a risk inherent to the chemicals industry where legal requirements are increasingly demanding, both in Europe and in Spain. A change in current regulations could impact the Group's processes and margins, giving rise to new CAPEX needs.

- 7. The termination of the contract to supply chlorine to a single customer** from 2020, which will change the current situation by which ECR sells c. 40% of the chlorine it produces (< 3% of revenue). The ending of this contract means ECR will have a larger amount of chlorine for its own consumption (although with lower profitability).

In addition, this increase in the chlorine available for own consumption will lead to a change in the current PVC production structure, reducing the need for external EDC (that will be produced directly by ECR) and increasing purchases of ethylene. The combined effect of these changes in the PVC production chain could impact on the current profitability of the chlorine-caustic soda business.

A stable board although with no significant shareholding

Chart 32. Board of directors

Board member	Position	Type	Seniority
Antonio Zabalza Martí	President	Executive	1996
Carme Moragues	Board	Independent	2017
Lourdes Vega	Board	Independent	2016
Laureano Roldan	Board	External	1996
Eduardo Sánchez	Board	External	2004

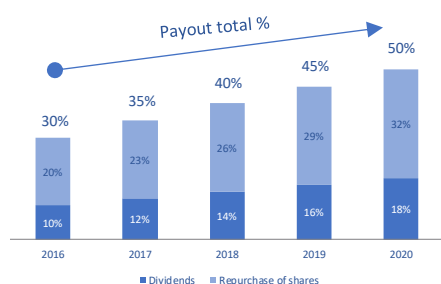
Despite not having a solid core of controlling shareholders (free float > 80%), ECR's board of directors and management team have remained stable in recent years (>10) and have lengthy experience of the industry (3/5 of the board have been with the company for over 15 years, as have the main members of the management team).

The executive managing director has over 23 years' service in the Group and a stake of 0.093% of capital.

- A stable board of directors** comprised of 5 members (1 executive, 2 external and 2 independent) although there are no proprietary directors. Since 2017 there has been close to gender parity on the board (40% of board members are women). Fully focused on organic growth: in the last 3 years (ND/EBITDA < 2x) no corporate transactions have been carried out.
- Non-executive directors receive no compensation other than a per diem** to compensate them for attendance at meetings without prejudice to their independence. The maximum compensation to be paid to members of the board of directors has been fixed since 2016 at EUR 0.9Mn (until 2019).

Total compensation paid to members of the board of directors in 2018 was EUR 0.69Mn, with a 5% increase in monetary compensation between 2017 and 2018 (EUR 0.65Mn in 2017). Historically, the amount paid in respect of these items has remained stable at around 0.8% of personnel costs.

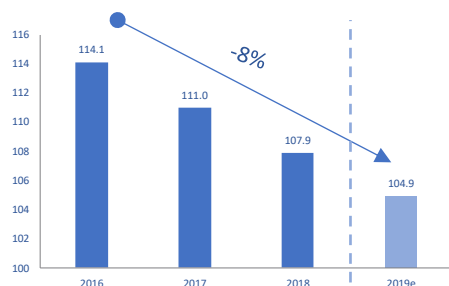
Chart 33. Shareholder remuneration policy



- With a demanding shareholder remuneration policy.** In the last three years (2015-2018; including the remuneration charged to 2018), ECR has paid out EUR 47Mn in shareholder remuneration, with the number of shares being reduced by 9Mn (8% of capital).

According to the company's shareholder remuneration policy, the repurchase of shares is the preferred way of remunerating shareholders, provided the dividend reaches at least the expected pay-out for each year (see chart 26). Since the beginning of the repurchase programme, ECR has reduced its total number of shares by 8%, paying EUR 30.5Mn. Currently, ECR has treasury stock amounting to 2.7% of the share capital that it will cancel by reducing capital.

Chart 34. Number of shares (millions)



Note: 2019e refers to the number of shares available at the end of 2019 after the amortization of those purchased with the payout of 2018 (2.7% of capital).

The conditions for maintaining the shareholder remuneration policy are as follows: (i) minimum EPS of EUR 0.1/share and (ii) that the following ratios are met at the end of each year: ND/EBITDA < 2x and ND/Equity < 0.5. ECR's shareholder remuneration plan envisages a growing dividend until 2020 although according to our estimates, shareholder remuneration will have to be temporarily suspended in 2019e (as the ND/EBITDA < 2x ratio will not be met). We expect this to be resumed from 2020e.

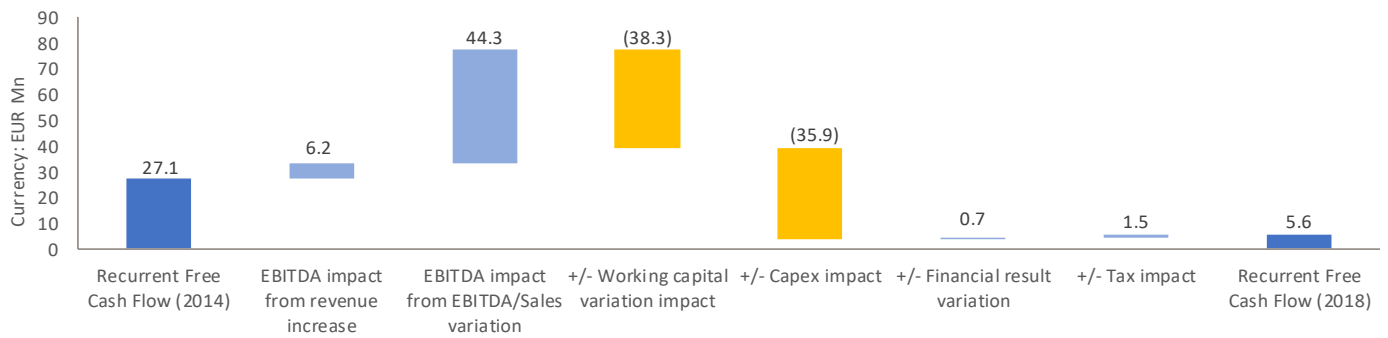
Appendix 1. Financial Statements

Balance Sheet (EUR Mn)	2014	2015	2016	2017	2018	2019e	2020e	2021e		
Intangible assets	5.6	6.5	5.9	4.1	4.2	4.4	4.5	4.7		
Fixed assets	245.7	235.3	249.2	269.4	300.5	321.0	325.9	325.7		
Other Non Current Assets	0.9	2.5	7.0	25.9	31.7	31.7	31.7	31.7		
Financial Investments	40.4	40.4	38.7	44.9	45.2	45.7	46.3	46.8		
Goodwill & Other Intangibles	-	-	-	-	-	-	-	-		
Current assets	208.3	205.3	184.6	218.3	218.9	235.9	242.5	244.0		
Total assets	500.8	490.1	485.4	562.6	600.5	638.7	650.9	652.9		
Equity	168.2	175.9	219.8	247.5	272.3	278.7	308.3	326.3		
Minority Interests	-	-	-	-	-	-	-	-		
Provisions & Other L/T Liabilities	62.8	66.2	71.0	84.1	76.5	56.5	54.4	52.3		
Net financial debt	128.8	119.5	73.4	89.3	126.5	156.7	135.6	119.9		
Current Liabilities	141.1	128.5	121.2	141.7	125.2	146.7	152.6	154.4		
Equity & Total Liabilities	500.8	490.1	485.4	562.6	600.5	638.7	650.9	652.9		
									CAGR	
P&L (EUR Mn)	2014	2015	2016	2017	2018	2019e	2020e	2021e	14-18	18-21e
Total Revenues	607.3	624.5	606.9	689.3	677.1	714.2	743.0	751.6	2.8%	3.5%
<i>Total Revenues growth</i>	-4.2%	2.8%	-2.8%	13.6%	-1.8%	5.5%	4.0%	1.2%		
COGS	(444.4)	(438.5)	(393.8)	(467.9)	(466.9)	(517.3)	(526.5)	(526.7)		
Gross Margin	162.9	186.0	213.1	221.3	210.3	196.9	216.5	224.9	6.6%	2.3%
<i>Gross Margin/Revenues</i>	26.8%	29.8%	35.1%	32.1%	31.1%	27.6%	29.1%	29.9%		
Personnel Expenses	(78.8)	(79.9)	(81.8)	(83.4)	(79.9)	(82.3)	(84.7)	(87.3)		
Other Operating Expenses	(69.7)	(73.7)	(72.8)	(67.7)	(65.5)	(67.4)	(68.5)	(69.1)		
Recurrent EBITDA	14.4	32.5	58.4	70.3	64.9	47.2	63.2	68.6	45.7%	1.8%
<i>Recurrent EBITDA growth</i>	-49.2%	125.5%	79.6%	20.3%	-7.6%	-27.3%	33.9%	8.5%		
<i>Rec. EBITDA/Revenues</i>	2.4%	5.2%	9.6%	10.2%	9.6%	6.6%	8.5%	9.1%		
Restructuring Expenses	-	-	-	(21.7)	-	-	-	-		
Other non-recurrent Income / Costs	-	-	-	-	3.0	-	-	-		
EBITDA	14.4	32.5	58.4	48.5	67.9	47.2	63.2	68.6	47.3%	0.3%
<i>EBITDA growth</i>	-49.2%	125.5%	79.6%	-16.9%	40.0%	-30.5%	33.9%	8.5%		
<i>EBITDA/Sales</i>	2.4%	5.2%	9.6%	7.0%	10.0%	6.6%	8.5%	9.1%		
Depreciation & Provisions	(19.5)	(19.9)	(7.4)	(14.2)	(24.2)	(19.5)	(20.3)	(20.5)		
Capitalized Expense	0.0	0.1	0.0	-	0.2	0.2	0.2	0.2		
EBIT	(5.0)	12.7	51.0	34.3	43.9	27.8	43.0	48.2	<i>n.a.</i>	3.2%
<i>EBIT growth</i>	<i>n.a.</i>	<i>n.a.</i>	300.4%	-32.8%	27.8%	-36.6%	54.7%	12.1%		
<i>EBIT/Revenues</i>	<i>n.a.</i>	2.0%	8.4%	5.0%	6.5%	3.9%	5.8%	6.4%		
Impact of Goodwill & Others	-	-	-	-	-	-	-	-		
Net Financial Result	(7.7)	(6.2)	(6.3)	(6.4)	(7.0)	(6.5)	(6.6)	(6.0)		
Income by the Equity Method	0.2	0.2	0.6	0.7	1.1	0.6	0.6	0.6		
Ordinary Profit	(12.5)	6.7	45.3	28.7	38.0	21.9	36.9	42.8	<i>n.a.</i>	4.0%
<i>Ordinary Profit Growth</i>	<i>n.a.</i>	<i>n.a.</i>	571.4%	-36.7%	32.5%	-42.4%	68.8%	15.8%		
Extraordinary Results	-	-	-	(0.1)	-	-	-	-		
Profit Before Tax	(12.5)	6.7	45.3	28.6	38.0	21.9	36.9	42.8	<i>n.a.</i>	4.0%
Tax Expense	5.4	0.5	(0.2)	15.9	6.9	(4.4)	(7.4)	(8.6)		
<i>Effective Tax Rate</i>	<i>n.a.</i>	<i>n.a.</i>	0.3%	<i>n.a.</i>	<i>n.a.</i>	20.0%	20.0%	20.0%		
Minority Interests	-	-	-	-	-	-	-	-		
Discontinued Activities	0.8	-	-	-	-	-	-	-		
Net Profit	(6.3)	7.2	45.2	44.5	44.9	17.5	29.6	34.2	<i>n.a.</i>	-8.6%
<i>Net Profit growth</i>	67.7%	<i>n.a.</i>	523.8%	-1.5%	0.9%	-61.0%	68.8%	15.8%		
Ordinary Net Profit	(12.5)	6.7	45.2	50.4	35.0	17.5	29.6	34.2	<i>n.a.</i>	-0.7%
<i>Ordinary Net Profit growth</i>	<i>n.a.</i>	<i>n.a.</i>	569.1%	11.6%	-30.6%	-50.0%	68.8%	15.8%		
									CAGR	
Cash Flow (EUR Mn)	2014	2015	2016	2017	2018	2019e	2020e	2021e	14-18	18-21e
Recurrent EBITDA						47.2	63.2	68.6	45.7%	1.8%
Working Capital Increase						0.5	(0.7)	0.3		
Recurrent Operating Cash Flow						47.7	62.5	68.9	7.7%	12.9%
CAPEX						(40.0)	(25.3)	(20.3)		
Net Financial Result affecting the Cash Flow						(6.5)	(6.6)	(6.0)		
Tax Expense						(0.4)	(7.4)	(8.6)		
Recurrent Free Cash Flow						0.8	23.2	34.0	-32.6%	82.4%
Restructuring Expense & Others						-	-	-		
- Acquisitions / + Divestures of assets						-	-	-		
Extraordinary Inc./Exp. Affecting Cash Flow						(20.0)	(2.1)	(2.1)		
Free Cash Flow						(19.1)	21.2	31.9	-32.6%	78.6%
Capital Increase						(4.5)	-	(11.0)		
Dividends						(6.5)	-	(5.3)		
Net Debt Variation						30.2	(21.2)	(15.6)		

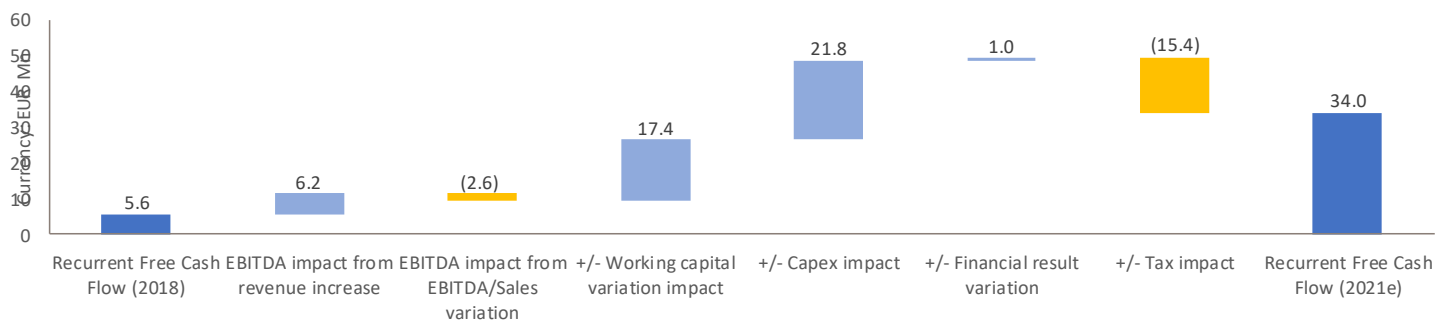
Appendix 2. Free Cash Flow

A) Cash Flow Analysis (EUR Mn)	2015	2016	2017	2018	2019e	2020e	2021e	CAGR	
								15-18	18-21e
Recurrent EBITDA	32.5	58.4	70.3	64.9	47.2	63.2	68.6	25.9%	1.8%
<i>Recurrent EBITDA growth</i>	125.5%	79.6%	20.3%	-7.6%	-27.3%	33.9%	8.5%		
<i>Rec. EBITDA/Revenues</i>	5.2%	9.6%	10.2%	9.6%	6.6%	8.5%	9.1%		
+/- Working Capital increase	(9.7)	13.5	(13.2)	(17.1)	0.5	(0.7)	0.3		
= Recurrent Operating Cash Flow	22.8	71.8	57.1	47.8	47.7	62.5	68.9	27.9%	12.9%
<i>Rec. Operating Cash Flow growth</i>	-35.8%	214.5%	-20.5%	-16.2%	-0.3%	31.1%	10.1%		
<i>Rec. Operating Cash Flow / Sales</i>	3.7%	11.8%	8.3%	7.1%	6.7%	8.4%	9.2%		
- CAPEX	(9.2)	(18.7)	(42.8)	(42.1)	(40.0)	(25.3)	(20.3)		
- Net Financial Result affecting Cash Flow	(6.2)	(6.3)	(6.4)	(7.0)	(6.5)	(6.6)	(6.0)		
- Taxes	0.5	(0.2)	15.9	6.9	(0.4)	(7.4)	(8.6)		
= Recurrent Free Cash Flow	7.9	46.7	23.8	5.6	0.8	23.2	34.0	-11.0%	82.4%
<i>Rec. Free Cash Flow growth</i>	-70.6%	487.4%	-49.1%	-76.4%	-85.2%	n.a.	46.3%		
<i>Rec. Free Cash Flow / Revenues</i>	1.3%	7.7%	3.4%	0.8%	0.1%	3.1%	4.5%		
- Restructuring expenses & others	-	-	(21.7)	-	-	-	-		
- Acquisitions / + Divestments	4.0	0.6	-	-	-	-	-		
+/- Extraordinary Inc./Exp. affecting Cash Flow	-	-	(0.1)	-	(20.0)	(2.1)	(2.1)		
= Free Cash Flow	11.9	47.3	1.9	5.6	(19.1)	21.2	31.9	-22.2%	78.6%
<i>Free Cash Flow growth</i>	-56.1%	297.4%	-95.9%	187.4%	n.a.	n.a.	50.9%		
<i>Recurrent Free Cash Flow - Yield (s/Mkt Cap)</i>	3.3%	19.5%	9.9%	2.3%	0.3%	9.7%	14.2%		
<i>Free Cash Flow Yield (s/Mkt Cap)</i>	5.0%	19.8%	0.8%	2.3%	n.a.	8.8%	13.3%		
B) Analytical Review of Annual Recurrent Free Cash Flow Performance (Eur Mn)									
	2015	2016	2017	2018	2019e	2020e	2021e		
Recurrent FCF(FY - 1)	27.1	7.9	46.7	23.8	5.6	0.8	23.2		
EBITDA impact from revenue increase	0.4	(0.9)	7.9	(1.2)	3.6	1.9	0.7		
EBITDA impact from EBITDA/Sales variation	17.7	26.8	3.9	(4.1)	(21.3)	14.1	4.6		
= Recurrent EBITDA variation	18.1	25.9	11.9	(5.3)	(17.7)	16.0	5.4		
+/- Working capital variation impact	(30.9)	23.1	(26.6)	(3.9)	17.6	(1.2)	1.0		
= Recurrent Operating Cash Flow variation	(12.8)	49.0	(14.7)	(9.3)	(0.1)	14.8	6.3		
+/- CAPEX impact	(3.0)	(9.6)	(24.1)	0.7	2.1	14.7	5.0		
+/- Financial result variation	1.5	(0.0)	(0.1)	(0.6)	0.5	(0.2)	0.6		
+/- Tax impact	(4.9)	(0.6)	16.1	(9.0)	(7.3)	(7.0)	(1.2)		
= Recurrent Free Cash Flow variation	(19.1)	38.7	(22.9)	(18.2)	(4.8)	22.4	10.8		
Recurrent Free Cash Flow	7.9	46.7	23.8	5.6	0.8	23.2	34.0		
C) "FCF to the Firm" (pre debt service) (EUR Mn)									
	2015	2016	2017	2018	2019e	2020e	2021e	CAGR	
EBIT	12.7	51.0	34.3	43.9	27.8	43.0	48.2	51.0%	3.2%
* <i>Theoretical tax rate</i>	0.0%	0.3%	0.0%	0.0%	20.0%	20.0%	20.0%		
= Taxes (pre- Net Financial Result)	-	(0.2)	-	-	(5.6)	(8.6)	(9.6)		
Recurrent EBITDA	32.5	58.4	70.3	64.9	47.2	63.2	68.6	25.9%	1.8%
+/- Working Capital increase	(9.7)	13.5	(13.2)	(17.1)	0.5	(0.7)	0.3		
= Recurrent Operating Cash Flow	22.8	71.8	57.1	47.8	47.7	62.5	68.9	27.9%	12.9%
- CAPEX	(9.2)	(18.7)	(42.8)	(42.1)	(40.0)	(25.3)	(20.3)		
- Taxes (pre- Financial Result)	-	(0.2)	-	-	(5.6)	(8.6)	(9.6)		
= Recurrent Free Cash Flow (To the Firm)	13.7	53.0	14.3	5.7	2.1	28.7	38.9	-25.2%	89.5%
<i>Rec. Free Cash Flow (To the Firm) growth</i>	-53.4%	286.8%	-73.1%	-59.9%	-62.8%	n.a.	35.8%		
<i>Rec. Free Cash Flow (To the Firm) / Revenues</i>	2.2%	8.7%	2.1%	0.8%	0.3%	3.9%	5.2%		
- Acquisitions / + Divestments	4.0	0.6	-	-	-	-	-		
+/- Extraordinary Inc./Exp. affecting Cash Flow	-	-	(0.1)	-	(20.0)	(2.1)	(2.1)		
= Free Cash Flow "To the Firm"	17.6	53.6	14.2	5.7	(17.9)	26.6	36.8	-31.3%	86.0%
<i>Free Cash Flow (To the Firm) growth</i>	-40.0%	203.6%	-73.5%	-59.6%	n.a.	n.a.	38.6%		
<i>Rec. Free Cash Flow To the Firm Yield (o/EV)</i>	3.4%	13.3%	3.6%	1.4%	0.5%	7.2%	9.8%		
<i>Free Cash Flow "To the Firm" - Yield (o/EV)</i>	4.4%	13.5%	3.6%	1.4%	n.a.	6.7%	9.3%		

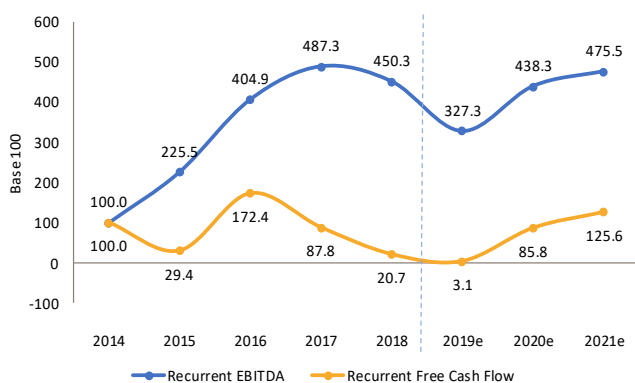
Recurrent Free Cash Flow accumulated variation analysis (2014 - 2018)



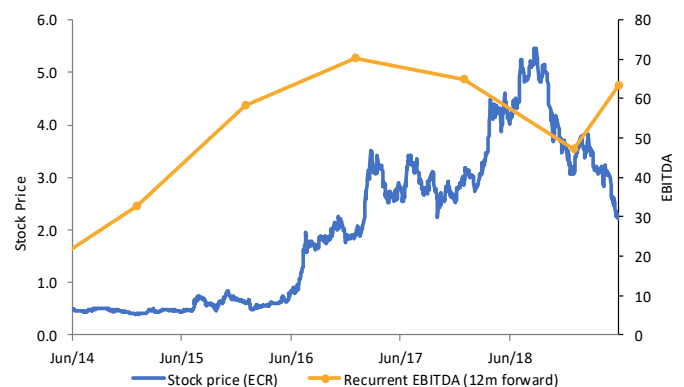
Recurrent Free Cash Flow accumulated variation analysis (2018 - 2021e)



Recurrent EBITDA vs Recurrent Free Cash Flow



Stock performance vs EBITDA 12m forward



Appendix 3. Historical performance ⁽¹⁾

Historical performance (EUR Mn)															CAGR	
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019e	2020e	2021e	08-18	18-21e
Total Revenues	834.6	569.8	609.3	686.0	639.5	625.0	607.3	624.5	606.9	689.3	677.1	714.2	743.0	751.6	-2.1%	3.5%
Total Revenues growth	-1.6%	-31.7%	6.9%	12.6%	-6.8%	-2.3%	-2.8%	2.8%	-2.8%	13.6%	-1.8%	5.5%	4.0%	1.2%		
EBITDA	42.1	(13.7)	10.9	26.9	21.1	28.9	14.4	32.5	58.4	48.5	67.9	47.2	63.2	68.6	4.9%	0.3%
EBITDA growth	51.2%	n.a.	n.a.	148.0%	-21.5%	36.8%	-50.1%	125.5%	79.6%	-16.9%	40.0%	-30.5%	33.9%	8.5%		
EBITDA/Sales	5.0%	n.a.	1.8%	3.9%	3.3%	4.6%	2.4%	5.2%	9.6%	7.0%	10.0%	6.6%	8.5%	9.1%		
Net Profit	(203.3)	(51.0)	(14.0)	(0.9)	(11.7)	(0.3)	(6.3)	7.2	45.2	44.5	44.9	17.5	29.6	34.2	n.a.	-8.6%
Net Profit growth	506.7%	-74.9%	-72.6%	-93.6%	n.a.	-97.3%	n.a.	n.a.	523.8%	-1.5%	0.9%	-61.0%	68.8%	15.8%		
Adjusted number shares (Mn)	100.6	100.6	100.6	100.6	100.8	103.5	111.5	114.0	114.1	112.3	109.2	107.9	107.9	107.9		
EPS (EUR)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.06	0.40	0.40	0.41	0.16	0.27	0.32		
EPS growth	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.1%	3.7%	-60.5%	68.8%	15.8%		
Ord. EPS (EUR)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	0.06	0.40	0.45	0.32	0.16	0.27	0.32		
Ord. EPS growth	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	13.4%	-28.6%	-49.4%	68.8%	15.8%			
CAPEX	(38.7)	(36.6)	(8.1)	(8.1)	(15.8)	(4.2)	(6.2)	(9.2)	(18.7)	(42.8)	(42.1)	(40.0)	(25.3)	(20.3)		
CAPEX/Sales % ¹	4.6%	6.4%	1.3%	1.2%	2.5%	0.7%	1.0%	1.5%	3.1%	6.2%	6.2%	5.6%	3.4%	2.7%		
Free Cash Flow	(39.5)	2.6	(18.7)	3.6	3.1	19.5	27.1	11.9	47.3	1.9	5.6	(19.1)	21.2	31.9	n.a.	78.6%
ND/EBITDA (x) ⁽²⁾	3.7x	n.a.	8.7x	3.0x	6.9x	5.3x	8.9x	3.7x	1.3x	1.8x	1.9x	3.3x	2.1x	1.7x		
P/E (x)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	9.7x	4.6x	7.2x	7.6x	13.7x	8.1x	7.0x		
EV/Sales (x)	0.4x	0.4x	0.3x	0.2x	0.3x	0.3x	0.3x	0.3x	0.5x	0.6x	0.7x	0.6x	0.5x	0.5x		
EV/EBITDA (x) ⁽²⁾	7.5x	n.a.	15.4x	5.6x	8.8x	7.1x	12.0x	5.8x	5.3x	8.7x	6.7x	8.4x	6.3x	5.8x		
Absolute performance	-44.8%	-13.1%	-48.6%	-4.8%	-41.2%	18.8%	-17.3%	56.7%	198.7%	55.4%	8.9%	-28.8%				
Relative performance vs Ibx 35	-8.9%	-33.1%	-37.8%	9.6%	-38.3%	-2.2%	-20.2%	68.8%	204.8%	44.7%	28.1%	-32.4%				

Note 1: The multiples are historical, calculated based on the price and EV at the end of each year, except (if applicable) in the current year, when multiples would be given at current prices. The absolute and relative behavior corresponds to each exercise (1/1 to 31/12). The source, both historical multiples and the evolution of the price, is Thomson Reuters.

Note 2: All ratios and multiples on EBITDA refer to total EBITDA (not to recurrent EBITDA).

Appendix 4. Main Competitors 2019e

		Europe					USA				
EUR Mn		BASF SE	Solvay	Covestro AG	Akzo Nobel AS	Average	DowDuPont	Olin Corp	Westlake	Average	Cia
Market data	Ticker (Reuters)	BASF.DE	SOLB.BR	1COV.DE	AKZO.AS		DWDP.K	OLN	WLK		ECR.MC
	Country	Germany	Belgium	Germany	Netherlands		USA	USA	USA		Spain
	Market cap	54,066.0	8,872.7	7,179.1	17,142.9	21,815.2	61,395.3	2,895.1	6,597.2	23,629.2	239.3
	Enterprise value (EV)	74,636.0	12,421.1	8,267.1	16,096.9	27,855.3	93,599.2	5,660.0	9,084.0	36,114.4	397.1
Basic financial information	Total Revenues	64,034.3	10,769.6	13,495.7	9,526.9	24,456.6	76,471.1	6,321.5	7,942.3	30,245.0	714.2
	Total Revenues growth	2.2%	-4.7%	-7.7%	2.9%	-1.8%	2.0%	4.4%	5.5%	4.0%	5.5%
	2y CAGR (2019e - 2021e)	4.0%	3.6%	2.7%	2.7%	3.3%	-32.2%	-0.6%	3.4%	-9.8%	2.6%
	EBITDA	9,652.0	2,307.3	2,125.1	1,277.2	3,840.4	16,509.7	1,137.0	1,800.4	6,482.3	47.2
	EBITDA growth	-3.8%	8.4%	-32.6%	23.3%	-1.2%	25.4%	9.1%	-0.8%	11.2%	-30.5%
	2y CAGR (2019e - 2021e)	8.4%	4.4%	-0.8%	11.5%	5.9%	-27.5%	6.3%	2.3%	-6.3%	20.5%
	EBITDA/Revenues	15.1%	21.4%	15.7%	13.4%	16.4%	21.6%	18.0%	22.7%	20.7%	6.6%
	Net Profit	5,051.7	937.0	1,029.3	752.4	1,942.6	8,633.7	317.4	856.2	3,269.1	17.5
	Net Profit growth	35.7%	34.6%	-43.7%	65.4%	23.0%	151.0%	11.0%	-5.0%	52.3%	-61.0%
	2y CAGR (2019e - 2021e)	6.2%	5.7%	-7.0%	9.6%	3.6%	-24.9%	15.5%	-0.8%	-3.4%	39.8%
CAPEX/Sales %	5.8%	7.4%	6.6%	2.5%	5.6%	1.9%	5.7%	7.3%	5.0%	-5.6%	
Free Cash Flow	4,082.4	752.0	810.5	610.8	1,563.9	8,443.7	443.1	850.0	3,245.6	(19.1)	
Net financial debt	18,554.4	2,862.0	1,341.0	628.3	5,846.4	15,180.2	2,673.2	1,390.9	6,414.8	156.7	
ND/EBITDA (x)	1.9	1.2	0.6	0.5	1.1	0.9	2.4	0.8	1.3	3.3	
Pay-out	59.2%	41.9%	44.5%	62.7%	52.1%	19.1%	38.1%	13.7%	23.7%	0.0%	
Multiples and Ratios	P/E (x)	11.0	9.9	7.7	19.3	11.9	2.7	9.6	8.8	7.0	13.7
	P/BV (x)	1.5	0.9	1.3	2.5	1.6	0.3	1.1	1.0	0.8	0.9
	EV/Revenues (x)	1.2	1.2	0.6	1.7	1.2	1.2	0.9	1.1	1.1	0.6
	EV/EBITDA (x)	7.7	5.4	3.9	12.6	7.4	5.7	5.0	5.0	5.2	8.4
	ROE	13.2	8.6	12.7	7.2	10.4	6.2	8.1	11.5	8.6	6.4
	FCF Yield (%)	7.1	8.9	8.0	3.0	6.8	13.7	12.7	9.9	12.1	0.3
	Dvd Yield	5.5%	4.5%	6.1%	2.7%	4.7%	7.8%	4.1%	1.8%	4.6%	0.0%

Note 1: Financial data, multiples and ratios based on market consensus (Thomson Reuters). In the case of the company analyzed, own estimates (Lighthouse).

Note 2: All ratios and multiples on EBITDA refer to total EBITDA (not to recurrent EBITDA).

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Recommendation History

Date of report	Recommendation	Price (EUR)	Target price (EUR)	Period of validity	Reason for report	Analyst
03-Jun-2019	n.a.	2.22	n.a.	n.a.	Initial Coverage	David López Sánchez