



# Third quarter 2019 Presentation



# Cautionary note



Certain statements included in this announcement contain forward-looking information, including, without limitation, information relating to (a) forecasts, projections and estimates, (b) statements of Hydro management concerning plans, objectives and strategies, such as planned expansions, investments, divestments, curtailments or other projects, (c) targeted production volumes and costs, capacities or rates, start-up costs, cost reductions and profit objectives, (d) various expectations about future developments in Hydro's markets, particularly prices, supply and demand and competition, (e) results of operations, (f) margins, (g) growth rates, (h) risk management, and (i) qualified statements such as "expected", "scheduled", "targeted", "planned", "proposed", "intended" or similar.

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# Ramping up production in Brazil, declining market prices

Hilde Merete Aasheim,  
President and CEO



# Third quarter highlights

- Underlying EBIT of NOK 1 366 million
- Final Alunorte embargo lifted
- Results down on lower aluminium and alumina prices
- Positive effects from higher upstream production and lower raw material costs
- New improvement program on track for 2019 target
- Increased market uncertainty and reduced demand expectations

All result explanations versus same quarter previous year



# Ramping up production at Alunorte

- Final embargo lifted on September 26, allowing Alunorte to resume installation and commissioning activities at DRS2
- 83% average capacity utilization in Q3, targeting 75-85% in Q4
- Commissioning of 9th press filter during November, expected to reach full utilization end-2019 – estimated average capacity utilization 85-95% in 2020
- Expect to reach full capacity utilization in 2021 with further process optimization
- Fully committed to deliver on obligations under technical and social agreement (TAC and TC)



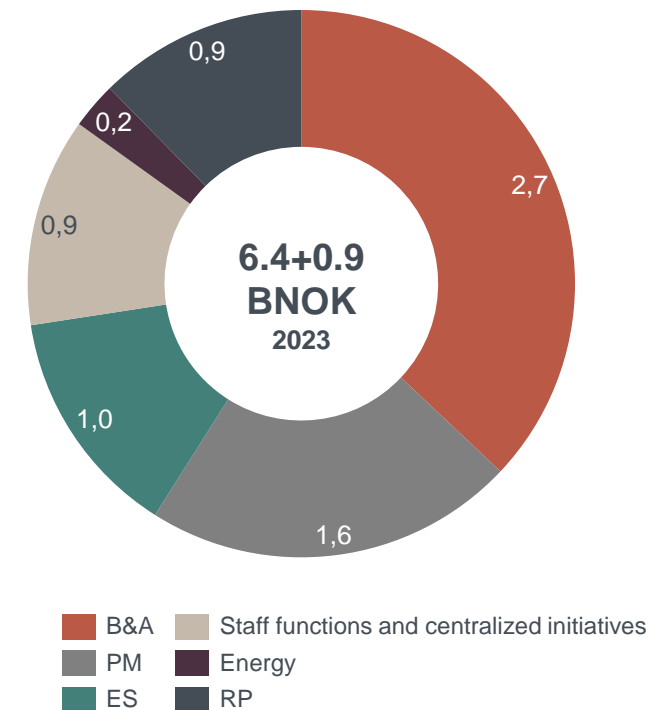
# On track for 2019 improvement target of NOK 500 million



Faster ramp-up in Brazil, Extruded Solutions facing market headwinds

<p><b>Bauxite &amp; Alumina</b>                  Curtailment reversal                  Fixed cost and efficiency</p>	<p><b>Primary Metal</b>                  Curtailment reversal                  Fixed cost and efficiency                  Husnes restart</p>
<p><b>Rolled Products</b>                  Organizational efficiency                  Operational efficiency                  Commercial excellence</p>	<p><b>Extruded Solutions</b>                  Portfolio optimization                  Fixed cost and efficiency                  Value-over-volume                  Selective growth</p>
<p><b>Energy</b>                  Commercial and operational handling                  Renewable and storage initiatives</p>	<p><b>Staff and support functions</b>                  Fixed cost and simplification                  Procurement initiatives</p>

By business area

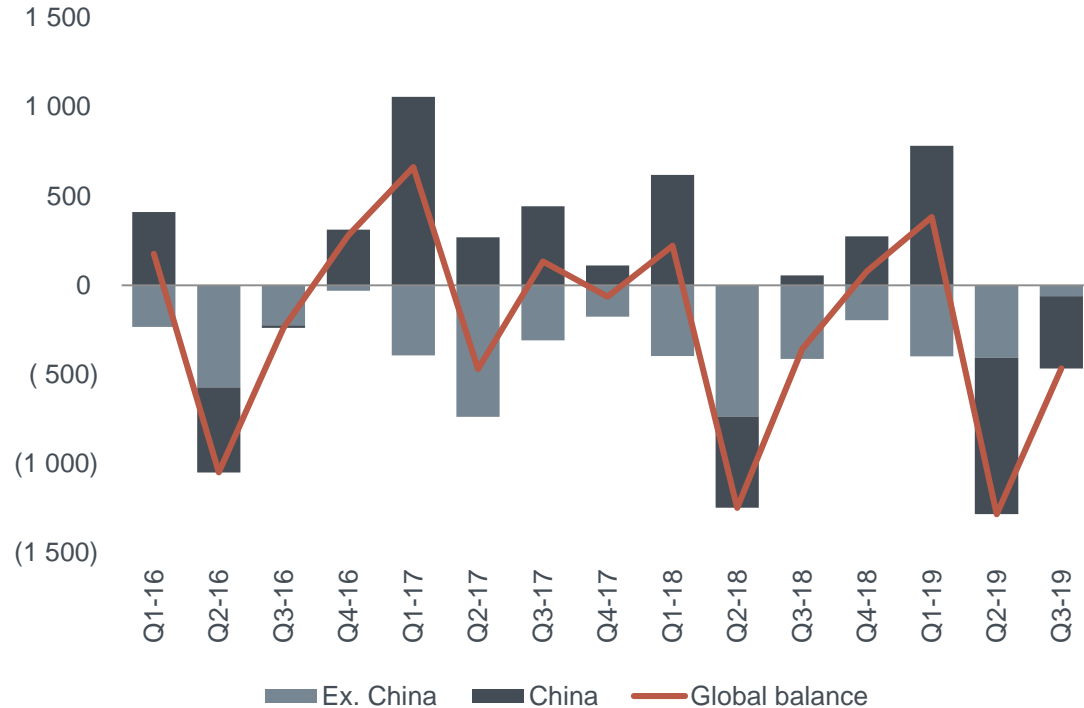


# Global aluminium market in deficit in Q3 2019

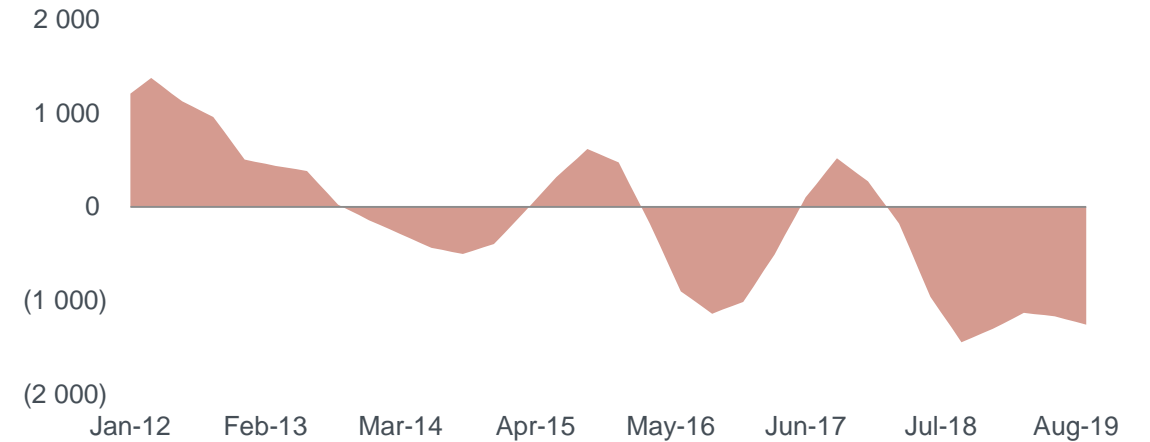


Balanced market in world outside China, deficit in China driven by production disruptions

Quarterly market balances, world ex. China and China  
1 000 mt primary aluminium



Production less demand\*)  
1 000 mt primary aluminium

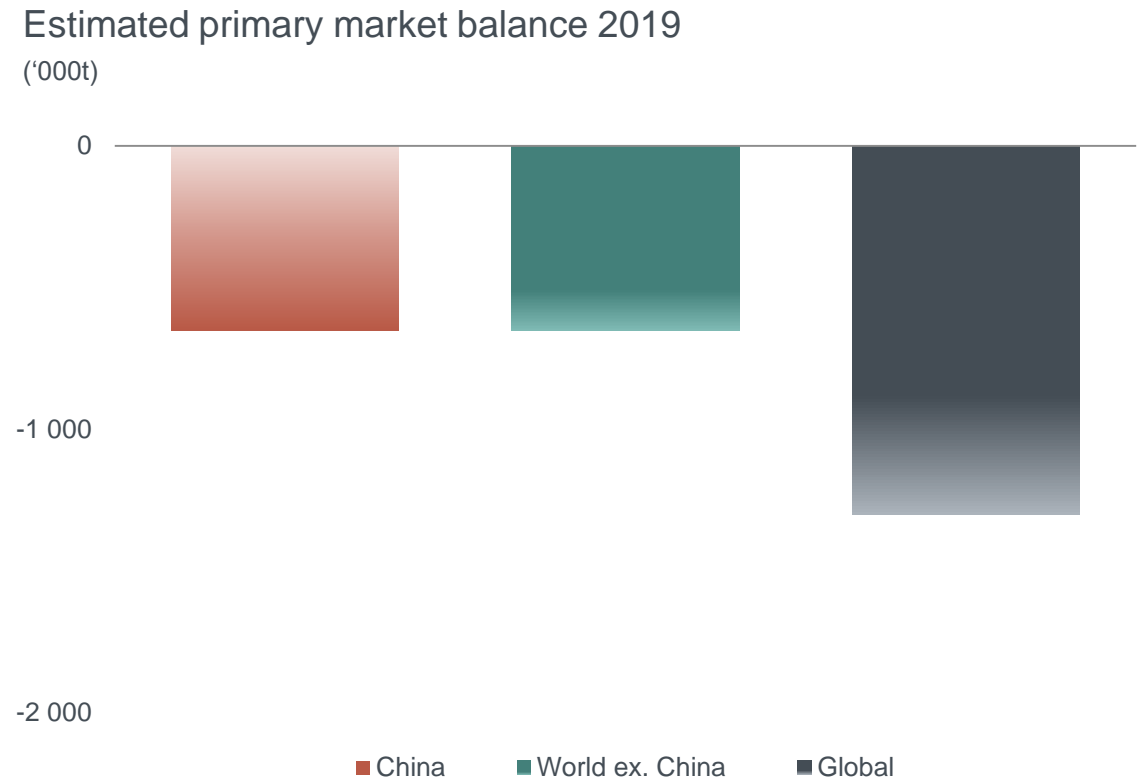
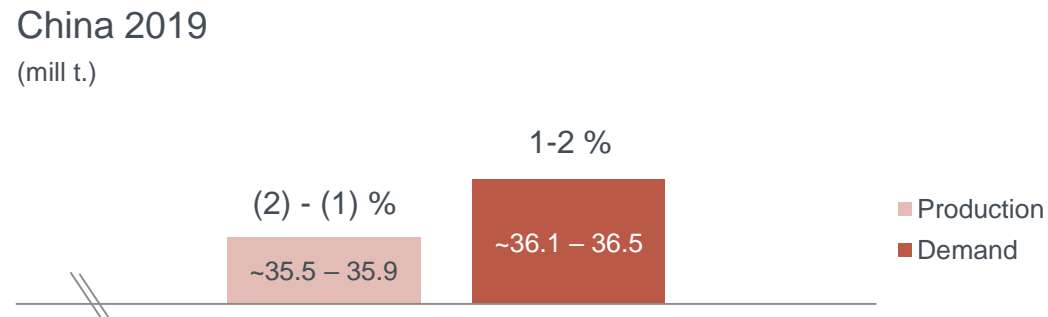
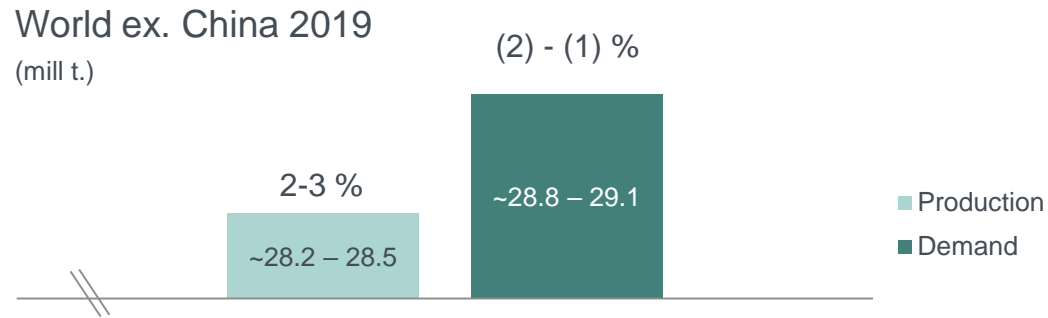


- ~0 % primary demand growth Q3-19 vs Q3-18
  - ~2 % China
  - ~(2) % World ex. China
- 2019 demand growth expected at (0.5) - 0.5%

Source: CRU/Hydro  
\* Yearly rolling average production less demand



# Global primary market expected in deficit for 2019

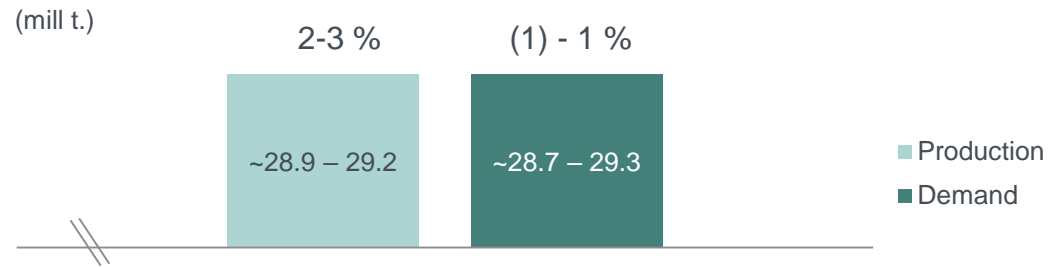




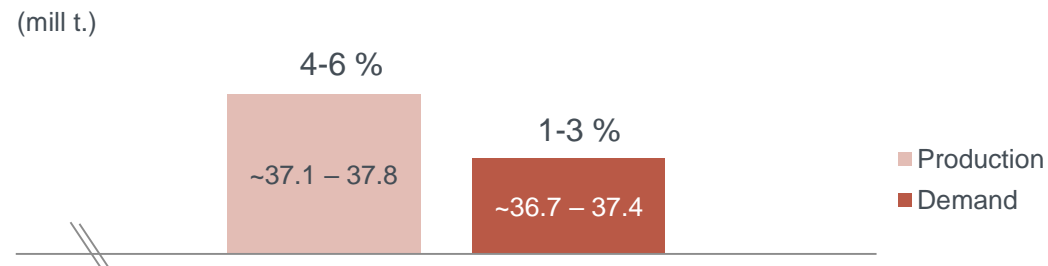
# Largely balanced market expected for 2020

Higher production growth and continued subdued demand

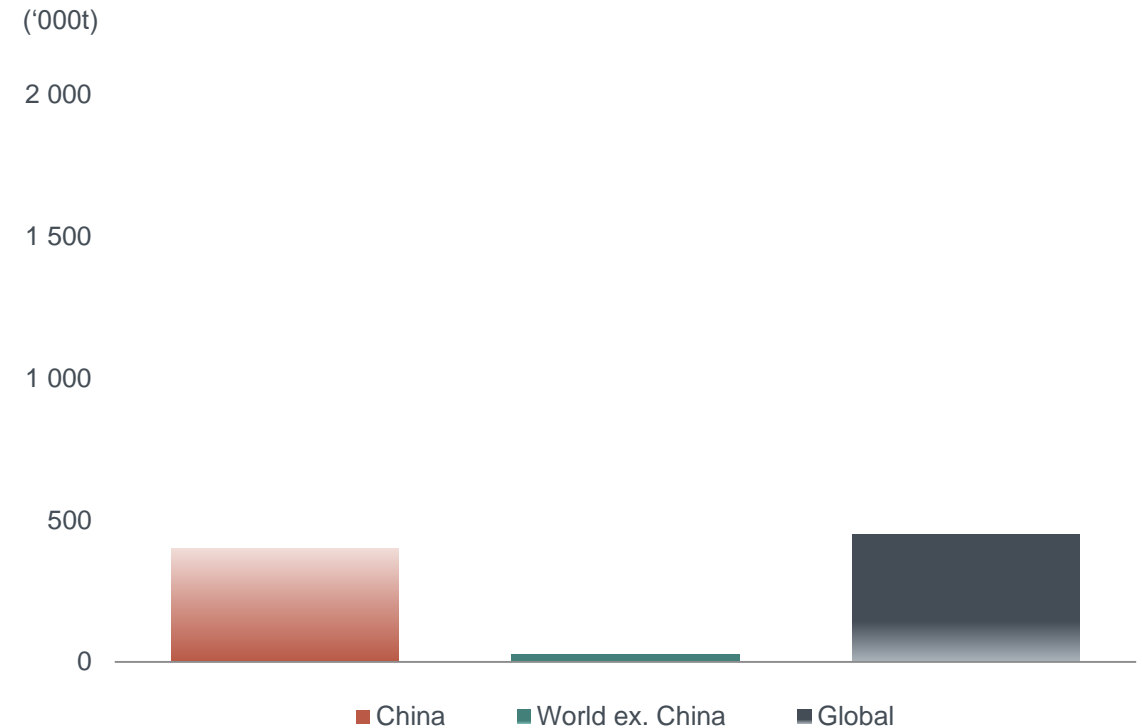
World ex. China 2020



China 2020



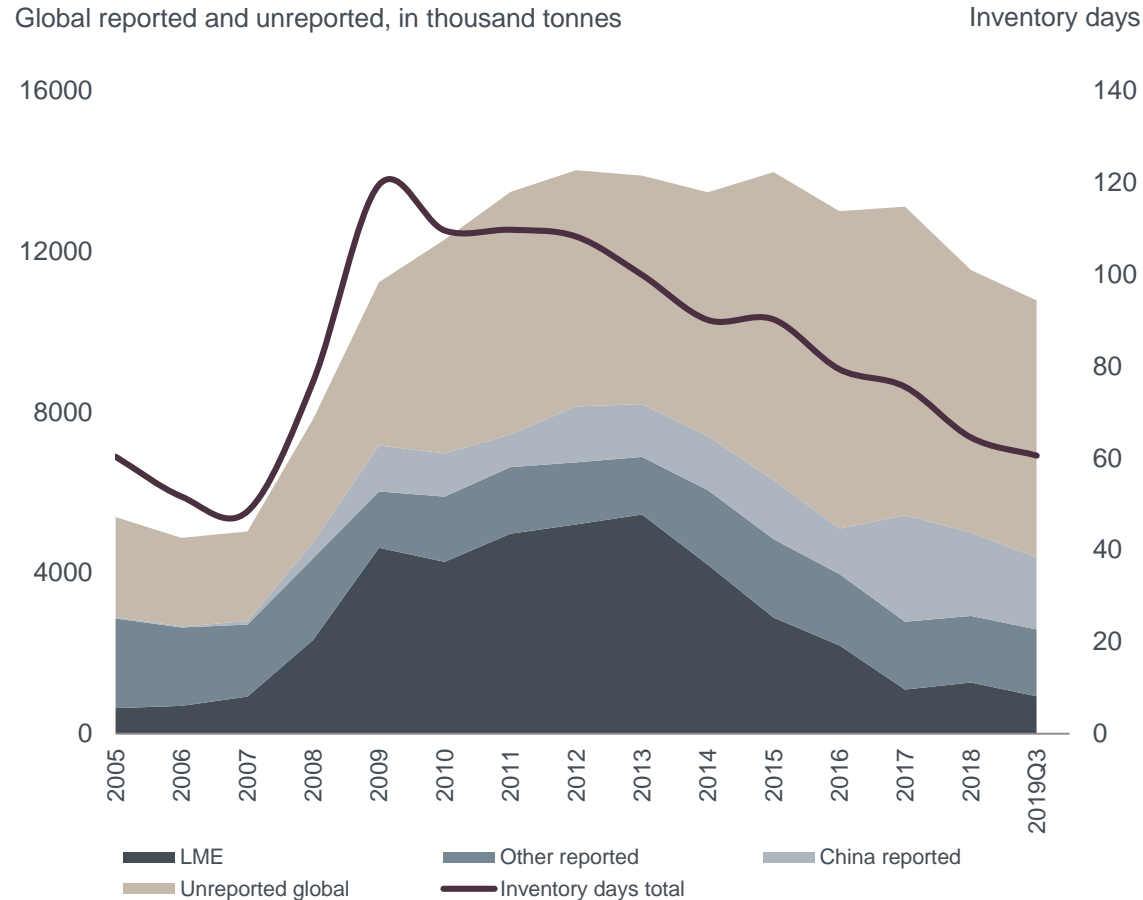
Estimated primary market balance 2020



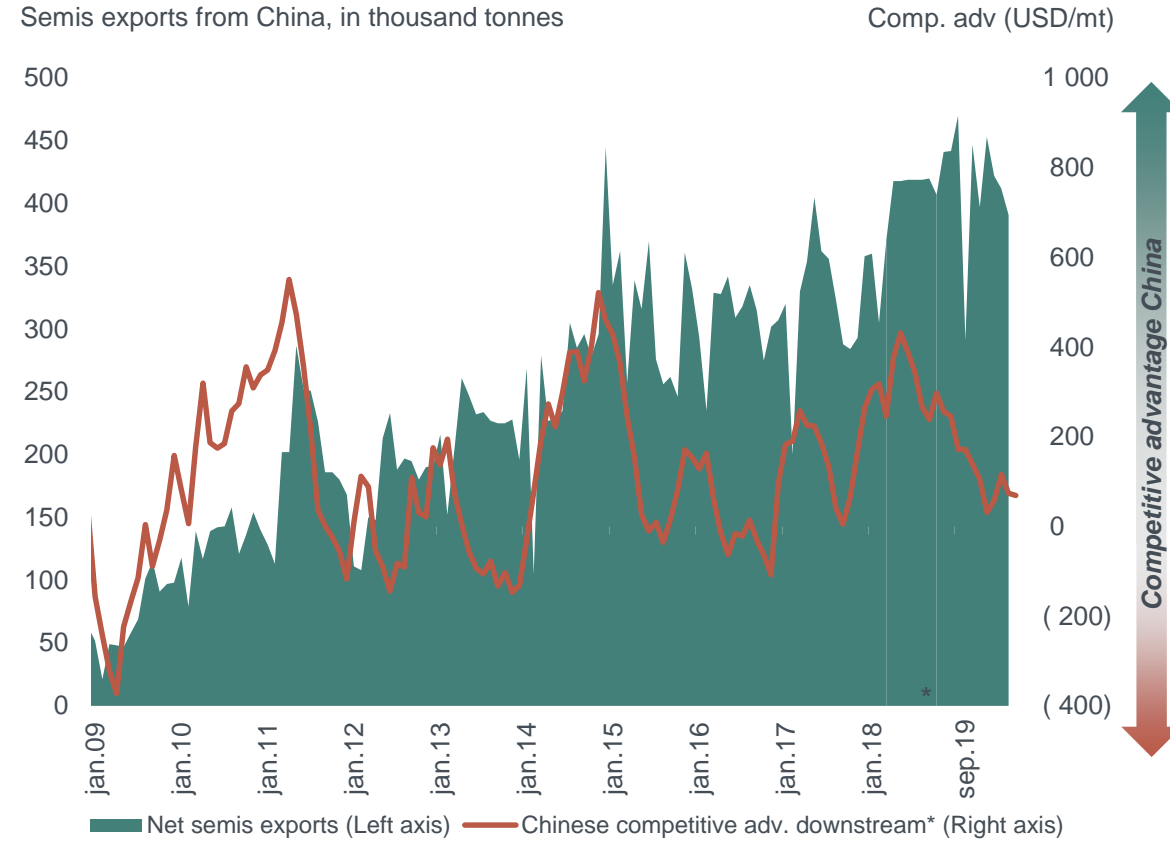
# Inventories gradually trending downwards



## Chinese semis exports moderating



\*2019 Q2 inventory days estimated on 12-months rolling historic consumption  
 Source: Republished under license from CRU International Ltd, Hydro analysis



Source: CRU, Thomson Reuters  
 Estimated metal cost China versus Europe  
 Europe: LME cash + European duty-paid standard ingot premium  
 China: SHFE cash + avg. local premium + freight – export rebates (~13 %)  
 \*No detailed data for April to September 2018, semis months for these months distributed flat



# Stable LME in USD, improving in NOK during Q3



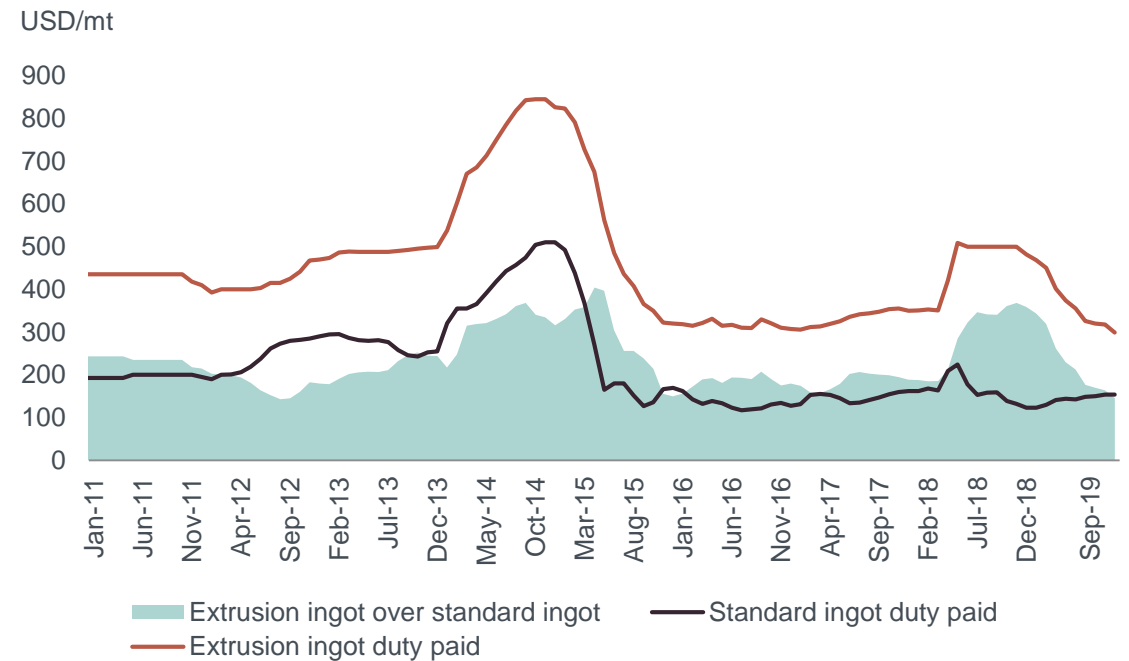
Tightening spread between standard ingot and product premiums

LME and SHFE aluminium prices



- LME mostly trading between 1 750 and 1 800 USD/t in Q3
- Continued low price differential between LME and SHFE

European extrusion ingot margin over standard ingot



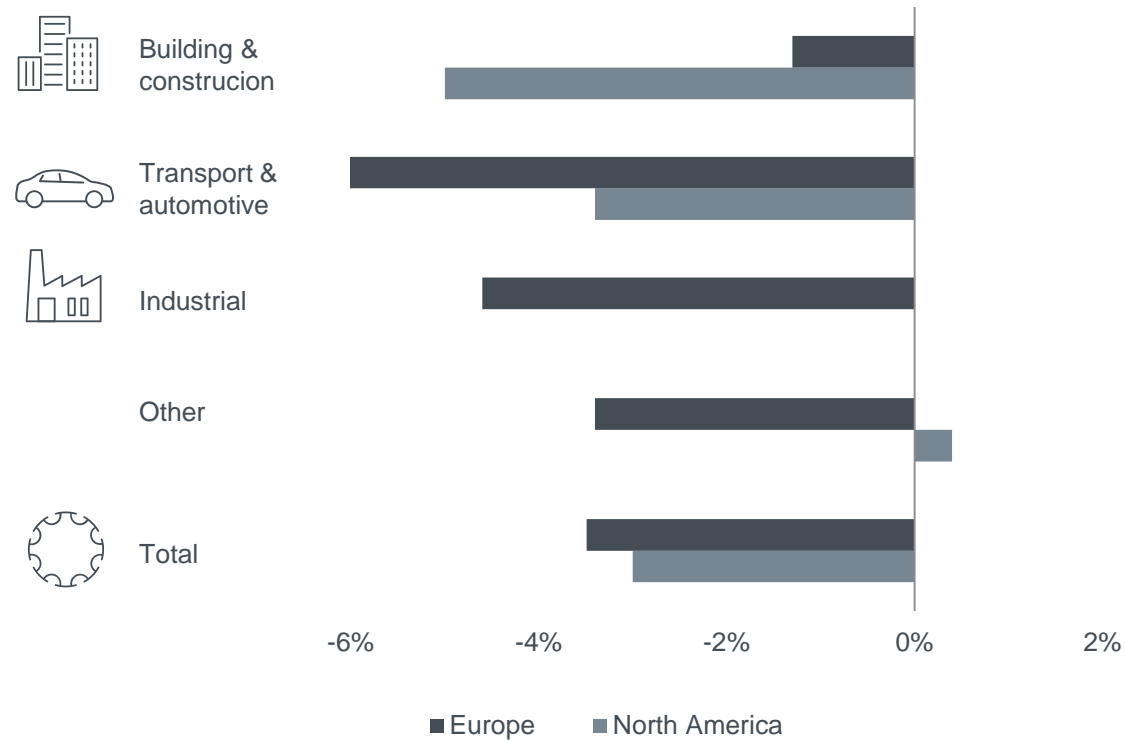
- Largely stable standard ingot premiums
- Declining extrusion ingot premiums on reduced demand

# Negative extrusions demand in Europe and North America

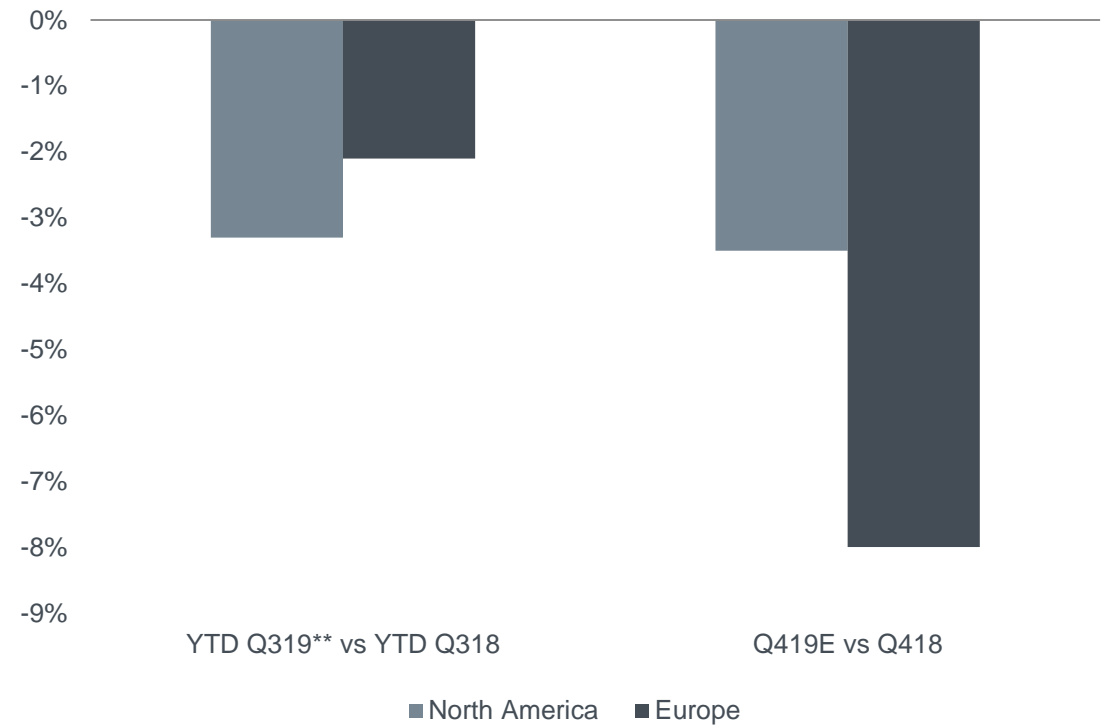


Driven by weak macroeconomic development

Extrusions – estimated market growth 2019 vs 2018 (%)



Extrusions – estimated market growth 2019 vs 2018 (%)



Source: CRU / Hydro analysis

\* Industrial includes consumer durables, electrical and machinery

\*\* Q319 numbers for North America are based on July and August estimates as September numbers have not yet been published

Europe excluding Russia/Turkey



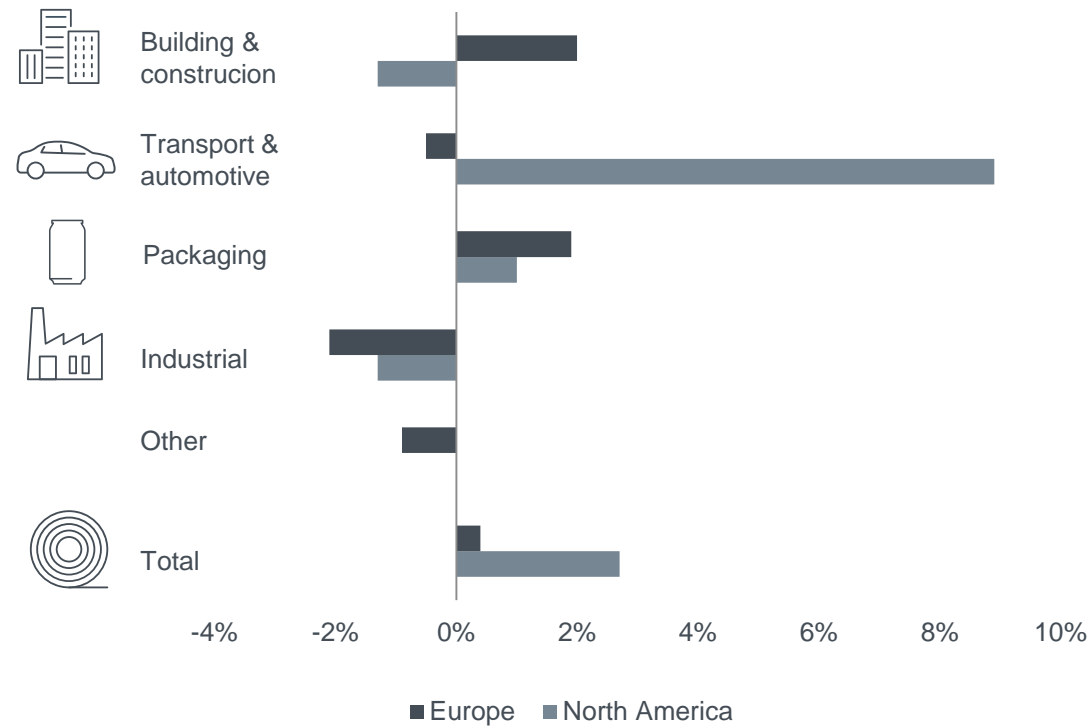
# Extruded Solutions taking firm measures in weak markets

- Restructuring in Europe
  - Full closures: Pinto (Spain), Redditch (UK), Rotherham (UK), Wakefield warehouse (UK), Lodz warehouse (Poland), Dusseldorf office (Germany)
  - Divestments: Chisineu Cris (Romania)
- Restructuring in North America
  - Full closures: Belton (South Carolina), Kalamazoo (Michigan)
- Business largely transferred to other sites
- Additional restructuring and cost reduction initiatives under way
- These initiatives support ongoing BNOK 1.0 improvement target for Extruded Solutions
- Restructuring and impairment cost of MNOK 156 booked in Q3 (excluded from underlying EBIT)
  - MNOK 228 booked in Q2

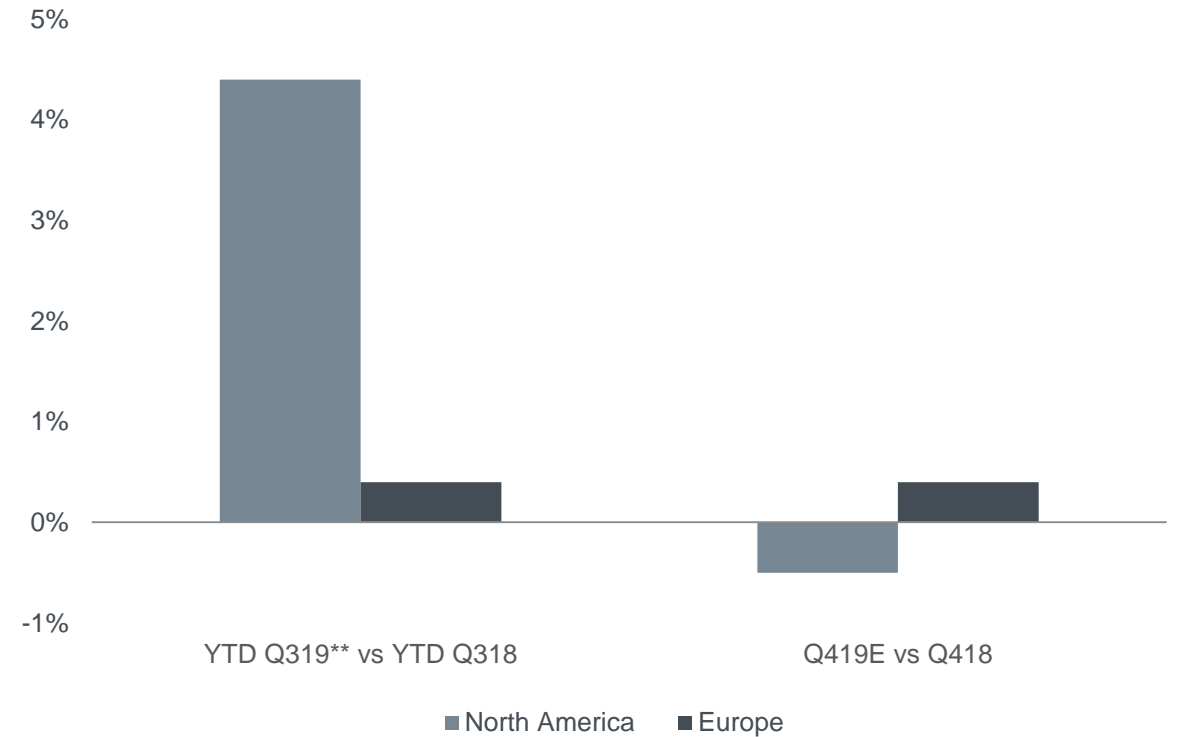


# Transport and packaging demand remains firm, overall rolled products demand weakening

Rolled products – estimated market growth 2019 vs 2018 (%)



Rolled products – Estimated market growth 2019 vs 2018 (%)



Source: CRU / Hydro analysis

\* Industrial includes consumer durables, electrical and machinery

\*\* Q319 numbers for North America are based on July and August estimates as September numbers have not yet been published

Europe excluding Russia/Turkey





## Growing can market, supported by substitution

- Sustainability trend supporting substitution to aluminium
- Several announcements on transition from beverage companies and can producers
- Can sheet demand in Europe expected to grow by 5-6% in 2019 and 6-7% in 2020
- Interesting market growth opportunity for Rolled Products
  - YTD 2019 vs YTD 2018 volumes to can segment up by 4%
  - Targeting to increase deliveries to can segment by ~20% by 2023

# Restructuring and strategic review in Rolled Products

- Improvement and restructuring
  - Organizational efficiency
  - Operational efficiency
  - Commercial excellence
  - Shifting volumes to more attractive market segments: automotive and can
- BNOK 0.9 improvement targeted by 2023, in addition to BNOK 0.9 release in net operating capital by 2021
- Total restructuring costs BNOK ~1.6
  - Restructuring and impairment cost of MNOK 1 145 booked in Q3 (excluded from underlying EBIT)
- Improvements to be realized while continuing strategic review





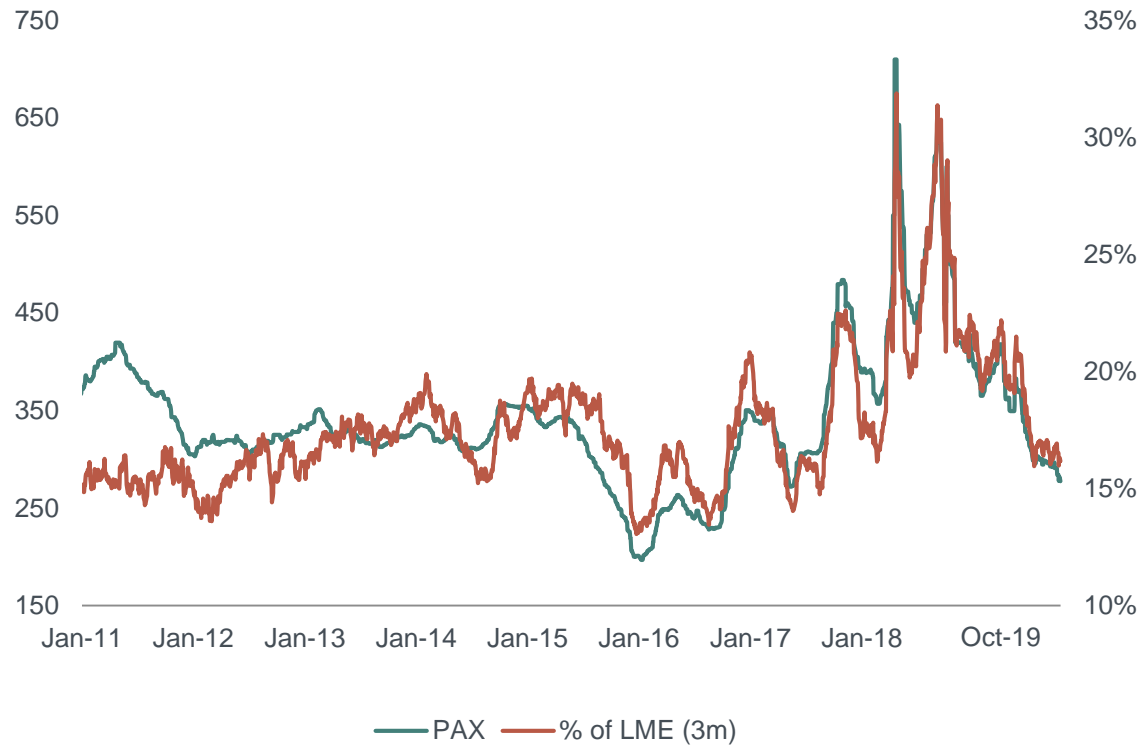
# Alumina prices down in Q3



Increasing alumina imports to China on widening price arbitrage

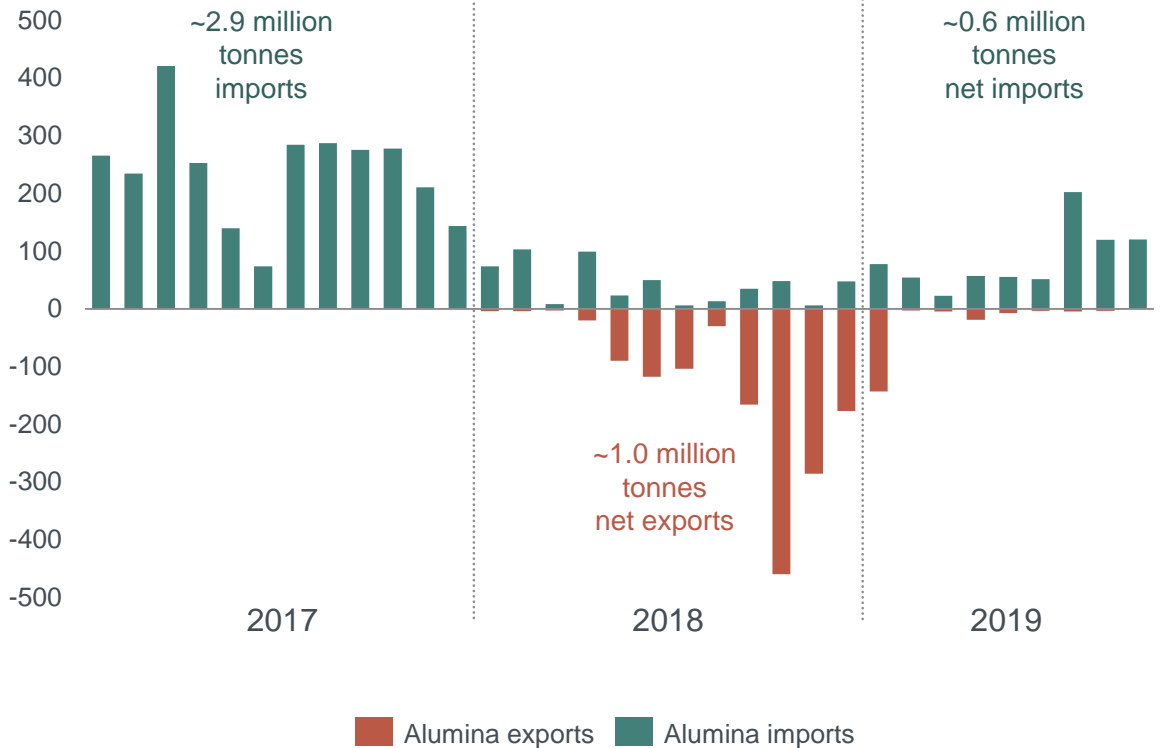
Platts alumina index (PAX)

In USD per tonne



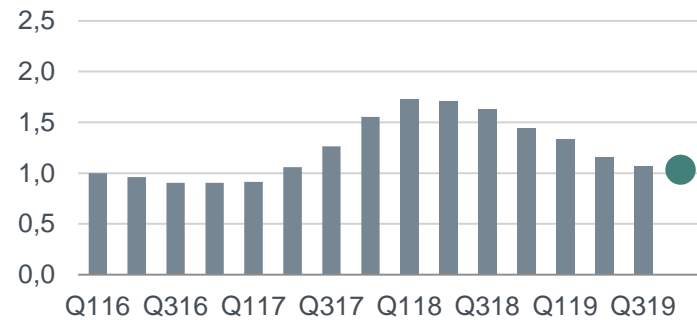
Monthly Chinese alumina trade balance (kt)

In '000 tonnes

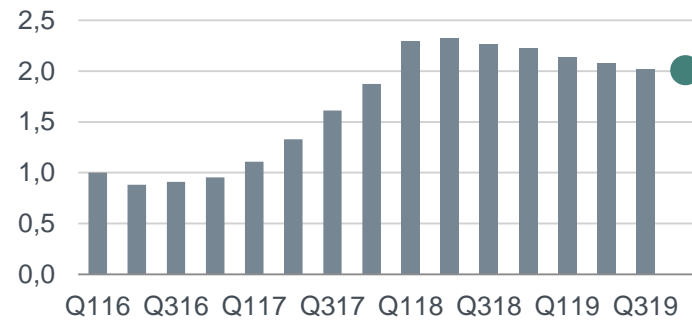


# Industry raw material costs down in Q3

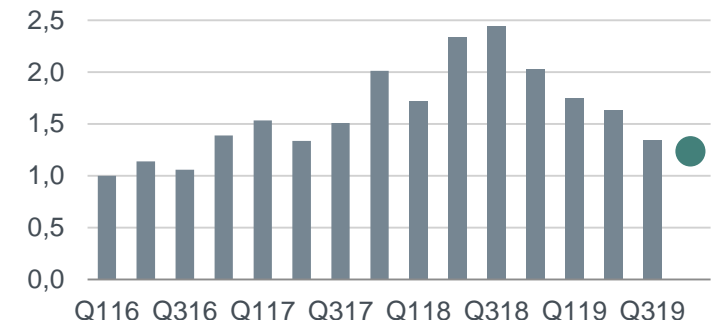
Petroleum coke FOB USG (indexed)



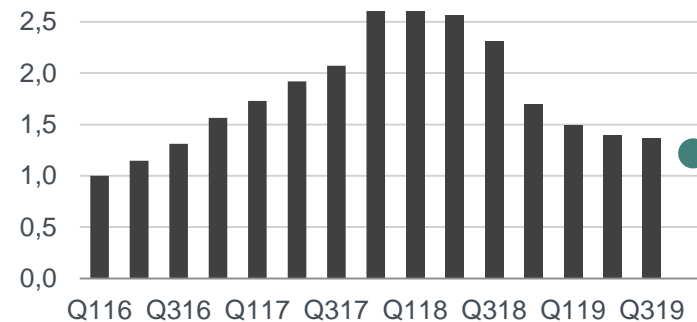
Pitch FOB USG (indexed)



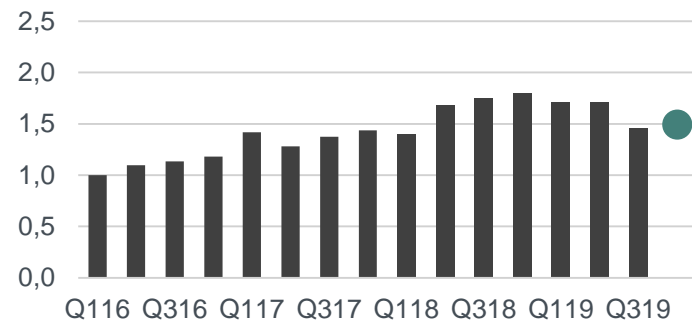
Alumina PAX index (indexed)



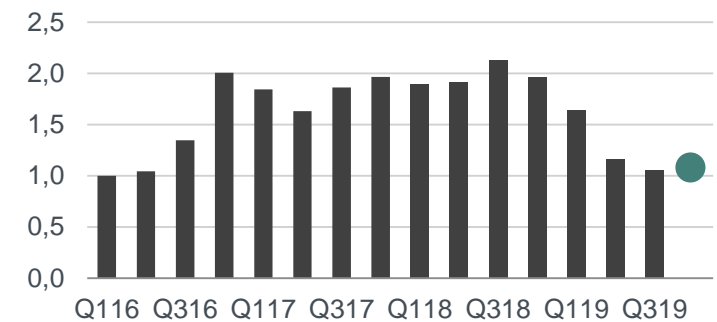
Caustic soda (indexed)



Fuel oil A1 (Indexed)



Steam coal (indexed)



● Indication of current market prices

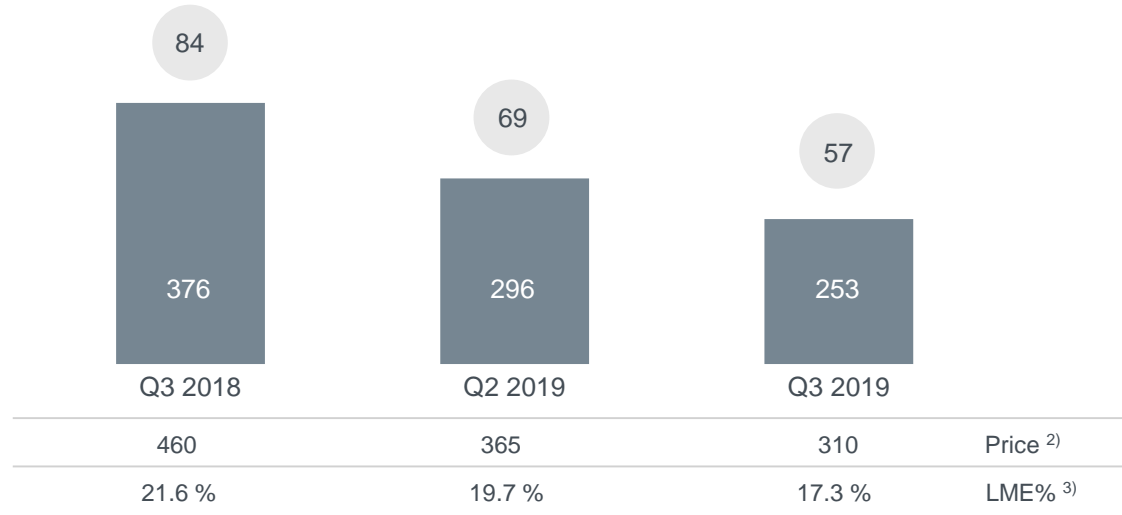
# Upstream costs trending downwards



Implied costs approaching pre-curtailment levels

## Implied alumina cost and margin

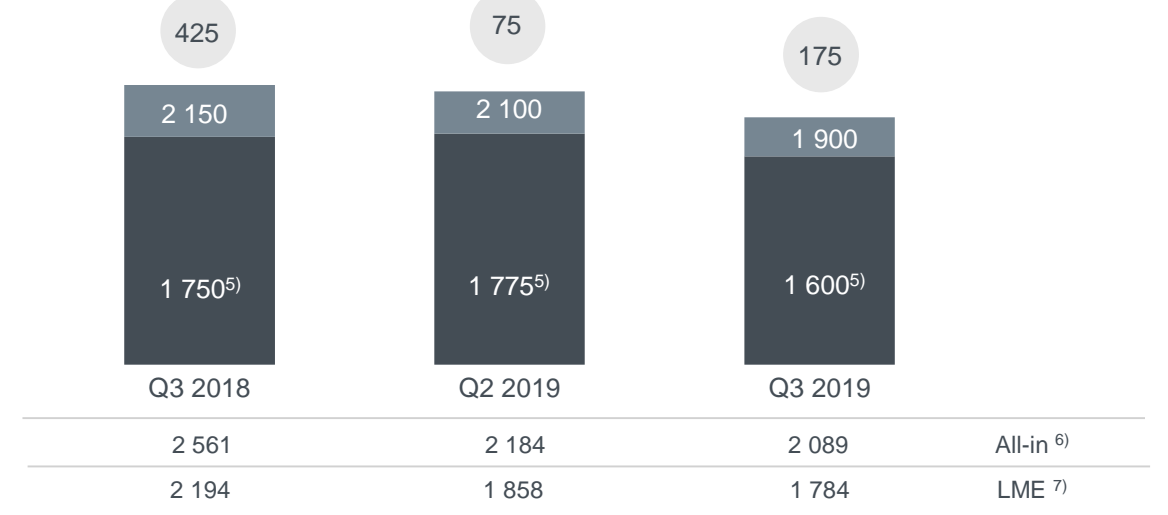
USD/mt<sup>1)</sup>



Implied alumina cost down in Q319 vs Q219, mainly on increased production, lower raw material costs and reduced external alumina sourcing and cost

## All-in implied primary cost and margin

USD/mt<sup>4)</sup>



Implied primary cost down in Q319 vs Q219 on reduced costs, mainly related to alumina

■ Implied EBITDA cost per mt    ● EBITDA margin per mt

■ All-in Implied EBITDA cost per mt    ■ LME Implied EBITDA cost per mt    ● All-in EBITDA margin per mt

1) Realized alumina price minus underlying EBITDA for B&A, per mt alumina sales  
 2) Realized alumina price  
 3) Realized alumina price as % of three-month LME price with one month lag  
 4) Realized all-in aluminium price less underlying EBITDA margin, incl Qatalum, per mt aluminium sold.  
 Implied primary cost and margin rounded to nearest USD 25

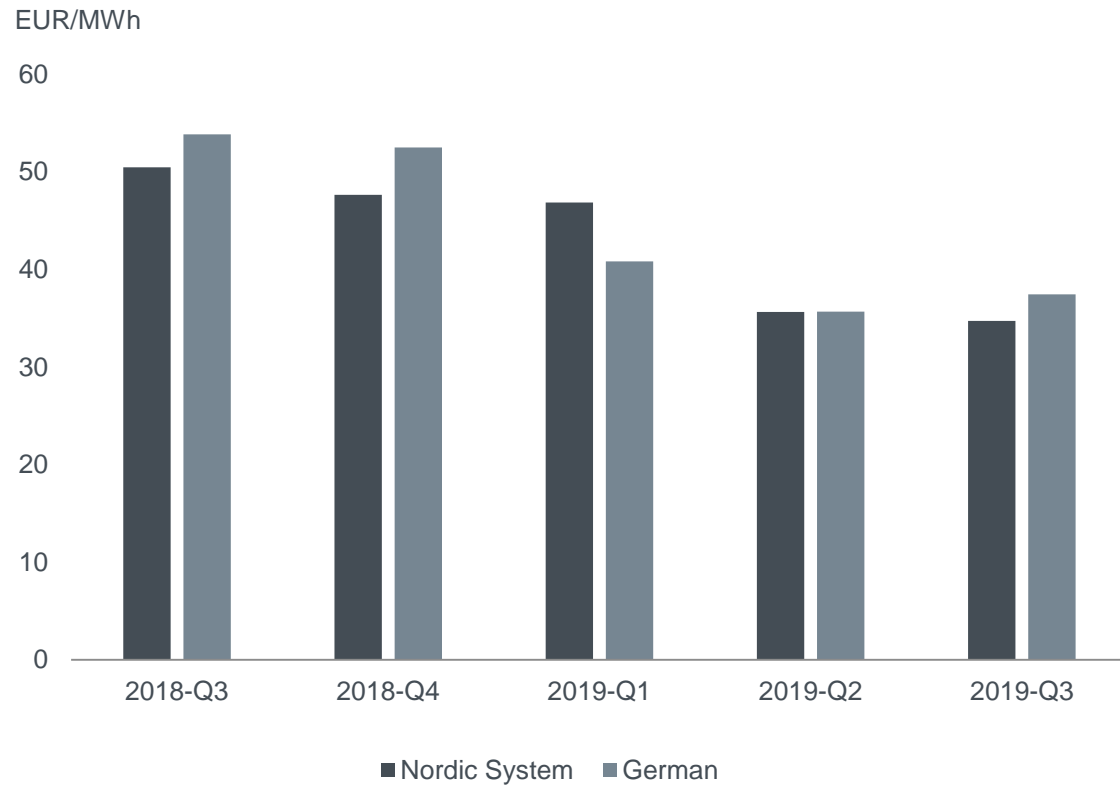
5) Realized LME aluminium price less underlying EBITDA margin, incl Qatalum, per mt primary aluminium produced  
 6) Realized LME plus realized premiums, including Qatalum  
 7) Realized LME, including Qatalum



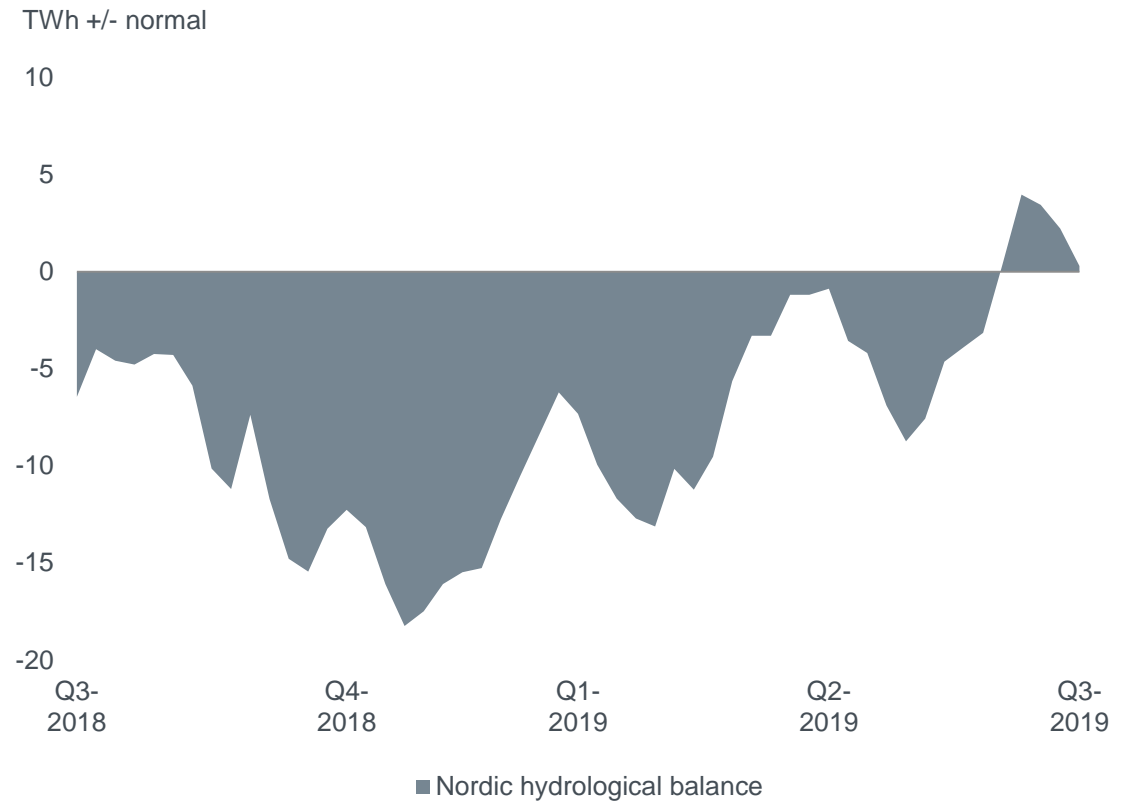
# Nordic power prices down on improved hydrological balance through Q3



Nordic System and German Power Prices (EUR/MWh)



Nordic hydrological balance



Source Nordic Hydrological Balance: Wattsight, Hydrological normal based on historical data from 1967-2011 and covers Norway and Sweden (the Nordic countries with significant hydrology resources)  
 Source Prices: NordPool (Nordic system price), Phelix (German price) The system price is the Nordic reference price for trading and clearing of most financial contracts.

# Audi e-tron and Hydro: joint sustainability commitment

- Hydro provides ASI certified aluminium to the battery housing of the Audi e-tron
- The Aluminium Stewardship Initiative is the industry-leading standard of responsibility and sustainability
- Hydro with longest unbroken chain of ASI certifications in the industry - from mining through refining and primary aluminum production to fabrication of end products
- 19 Hydro plants in 8 countries have been ASI certified, several more in the process





# Financial update

Pål Kildemo,  
Executive Vice President and CFO

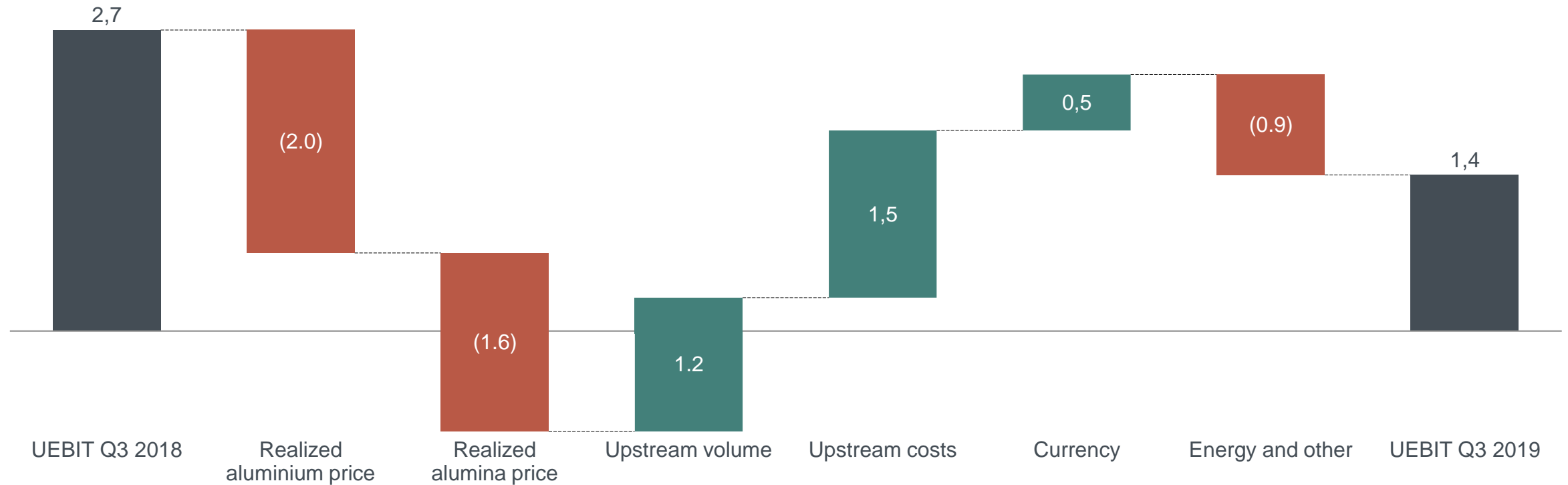


# Results down on lower realized prices

## Year-on-year results

Q3 2019 vs Q3 2018

NOK billion

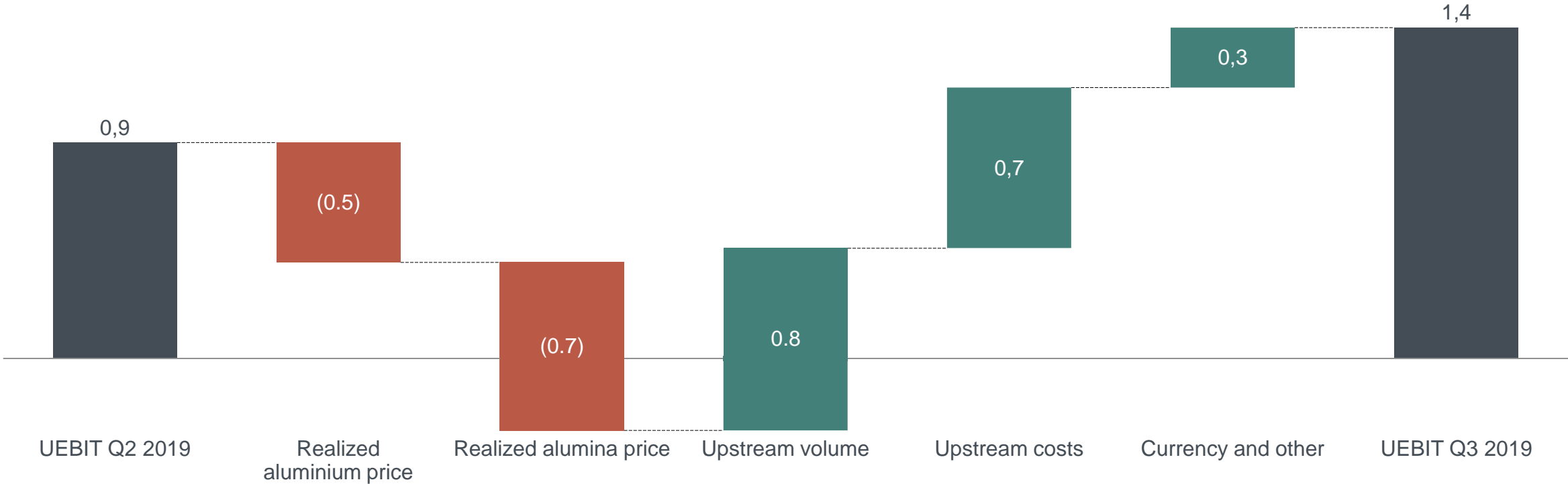


# Improved results on lower costs and higher volumes upstream



## Quarter-on-quarter results

Q3 2019 vs Q2 2019  
NOK billion



# Key financials



NOK million	Q3 2019	Q3 2018	Q2 2019	Year 2018
Revenue	37 517	39 766	39 176	159 377
<b>Underlying EBIT</b>	<b>1 366</b>	<b>2 676</b>	<b>875</b>	<b>9 069</b>
Items excluded from underlying EBIT	1 144	620	219	547
<b>Reported EBIT</b>	<b>222</b>	<b>2 057</b>	<b>656</b>	<b>8 522</b>
Financial income (expense)	(1 628)	(423)	(664)	(2 060)
<b>Income (loss) before tax</b>	<b>(1 407)</b>	<b>1 634</b>	<b>(8)</b>	<b>6 462</b>
Income taxes	16	(710)	(183)	(2 139)
<b>Net income (loss)</b>	<b>(1 390)</b>	<b>925</b>	<b>(190)</b>	<b>4 323</b>
<b>Underlying net income (loss)</b>	<b>606</b>	<b>1 696</b>	<b>281</b>	<b>5 819</b>
Reported EPS, NOK	(0.62)	0.37	(0.04)	2.08
Underlying EPS, NOK	0.33	0.74	0.19	2.75



# Items excluded from Underlying EBIT



Excluded a loss of 1 144 MNOK from Underlying EBIT

NOK million	Q3 2019	Q3 2018	Q2 2019	Year 2018
<b>Underlying EBIT</b>	<b>1 366</b>	<b>2 676</b>	<b>875</b>	<b>9 069</b>
Unrealized derivative effects on LME related contracts	120	(436)	(11)	(39)
Unrealized derivative effects on power and raw material contracts	46	183	72	260
Metal effect, Rolled Products	(123)	153	(3)	73
Significant rationalization charges and closure costs	(1 206)	-	(200)	(79)
Impairment charges	(95)	-	(28)	-
Alunorte agreements – provisions	(30)	(519)	(14)	(519)
Transaction related effects	-	-	(35)	-
Other effects	82	-	-	(203)
Pension	62	-	-	(40)
<b>Reported EBIT</b>	<b>222</b>	<b>2 057</b>	<b>656</b>	<b>8 522</b>

# Bauxite & Alumina

Results down on lower realized alumina prices

Key figures	Q3 2019	Q3 2018	Q2 2019
Alumina production, kmt	1 320	821	932
Total alumina sales, kmt	2 124	1 711	1 668
Realized alumina price, USD/mt	310	460	365
Implied alumina cost, USD/mt <sup>1)</sup>	253	376	296
Bauxite production, kmt	2 152	1 286	1 624
Underlying EBITDA, NOK million	1 071	1 193	1 004
Underlying EBIT, NOK million	481	685	415
Underlying RoaCE, % LTM <sup>2)</sup>	3.9%	9.5%	4.5%

## Underlying EBIT

NOK million



1) Realized alumina price minus underlying EBITDA for B&A, per mt alumina sales

2) URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters



## Results Q3 19 vs Q3 18

- Lower realized alumina price
- Higher alumina and bauxite production reflecting ongoing ramp-up
- Lower costs per tonne on scale effects and lower raw material prices

## Outlook Q4 19

- Continued ramp-up at Alunorte and Paragominas

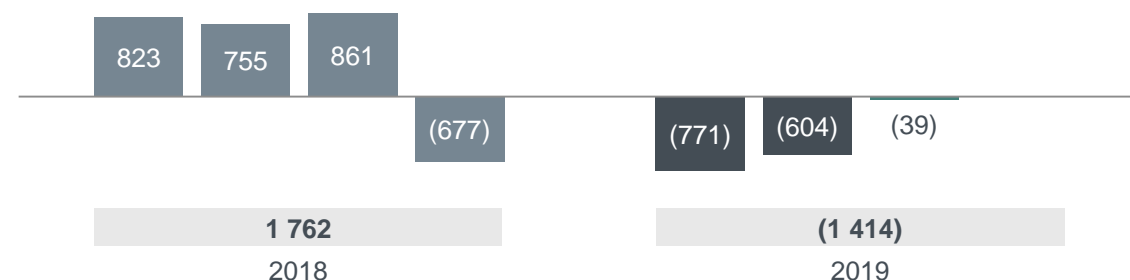
# Primary Metal

Results down on lower realized metal prices

Key figures	Q3 2019	Q3 2018	Q2 2019
Primary aluminium production, kmt	522	497	486
Total sales, kmt	537	516	527
Realized LME price, USD/mt	1 784	2 194	1 858
Realized LME price, NOK/mt	15 732	17 905	15 959
Realized premium, USD/mt	305	367	326
Implied all-in primary cost, USD/mt <sup>1)</sup>	1 900	2 150	2 100
Underlying EBITDA, NOK million	550	1 424	(27)
Underlying EBIT, NOK million	(39)	861	(604)
Underlying RoaCE, % LTM <sup>2)</sup>	(4.5)%	9.9%	(2.5)%

## Underlying EBIT

NOK million



1) Realized all-in aluminium price minus underlying EBITDA margin, including Qatalum, per mt aluminium sold. Including Qatalum volumes.

2) URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters



## Results Q3 19 vs Q3 18

- Lower realized all-in metal price
- Lower earnings on excess power sales in Brazil
- Lower raw material and fixed costs
- Positive currency effects

## Outlook Q4 19

- ~ 55% of primary production for Q4 priced at USD ~1 765 per mt <sup>2)</sup>
- ~ 60% of premiums affecting Q4 booked at USD ~325 per mt <sup>2)</sup>
- Q4 realized premium expected in the range of USD 250-300 per mt
- Raw material costs trending downwards
- Higher production on Albras ramp-up

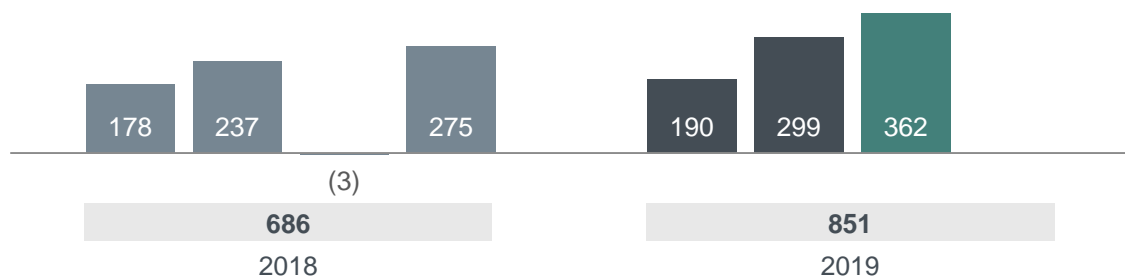
# Metal Markets

Results up on stronger performance from remelters and commercial activities

Key figures	Q3 2019	Q3 2018	Q2 2019
Remelt production, kmt	125	126	139
Metal products sales, kmt <sup>1)</sup>	662	685	707
Underlying EBITDA, NOK million	395	22	328
Underlying EBIT excl currency and inventory valuation effects, NOK million	338	78	352
Underlying EBIT, NOK million	362	(3)	299
Underlying RoaCE, % LTM <sup>2)</sup>	28.8%	20.2%	19.7%

## Underlying EBIT

NOK million



1) Includes external and internal sales from primary casthouse operations, remelters and third-party metal sources.  
 2) URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters



## Results Q3 19 vs Q3 18

- Improved results from remelters on higher margins in the US
- Strong contribution from sourcing and trading activities
- Currency and inventory valuation effects positive NOK 24 million in Q3 19 vs NOK 81 million negative in Q3 18

## Outlook Q4 19

- Softening market conditions for remelters
- Volatile trading and currency effects



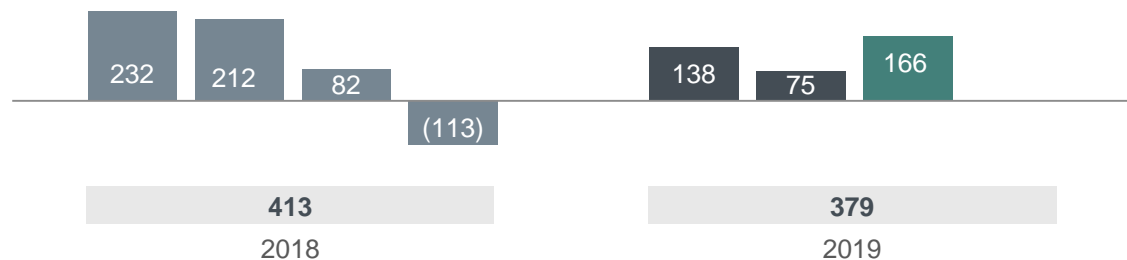
# Rolled Products

Results up driven by Neuss smelter

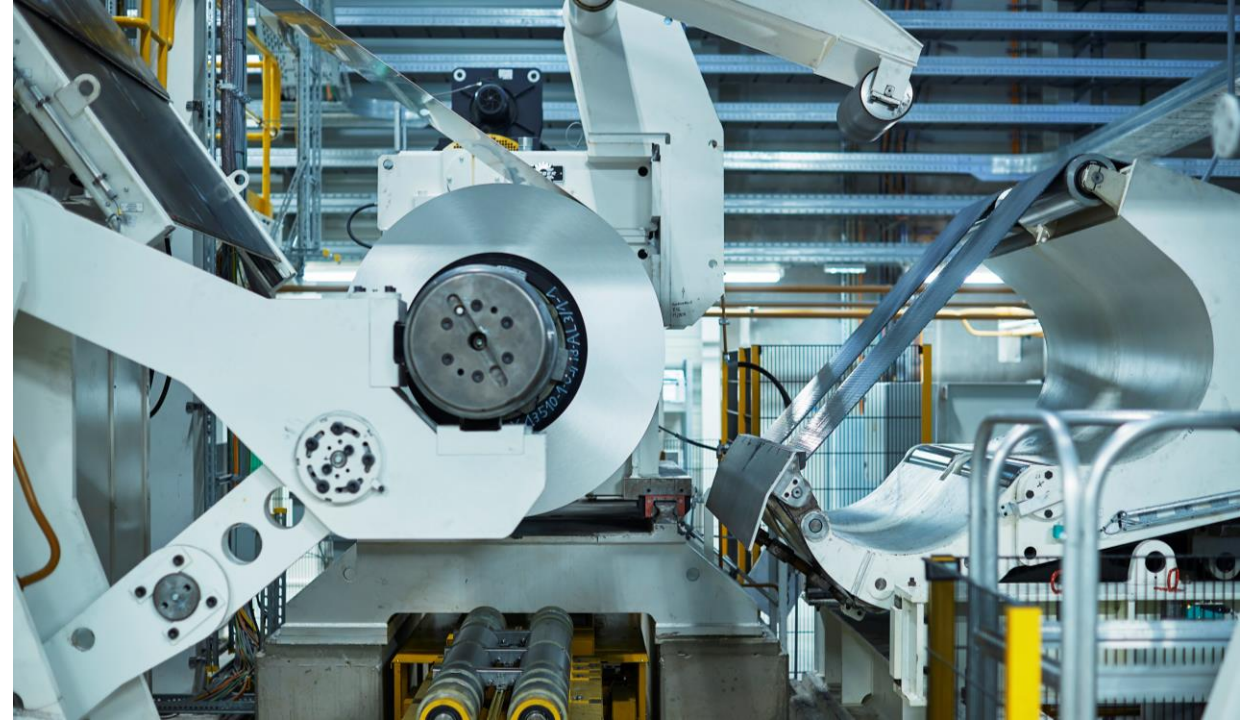
Key figures	Q3 2019	Q3 2018	Q2 2019
External sales volumes, kmt	245	235	242
Underlying EBITDA, NOK million	430	314	326
Underlying EBIT, NOK million	166	82	75
Underlying RoaCE, % LTM*	1.5%	3.6%	1.0%

## Underlying EBIT

NOK million



\*URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters



## Results Q3 19 vs Q3 18

- Stable results from the rolling mills
  - Higher volumes
  - Inflationary cost pressure
  - Positive currency effects
- Improved results from Neuss smelter on lower raw material costs

## Outlook Q4 19

- Softening demand growth in some market segments
- Neuss results driven by all-in metal and raw material price development

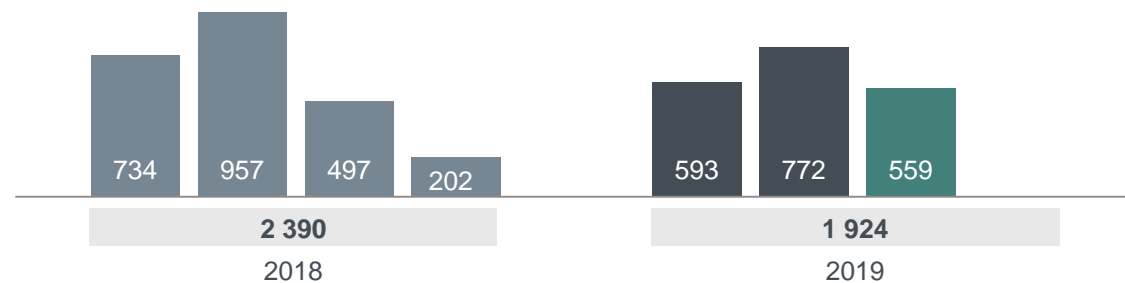
# Extruded Solutions

Results up on higher margins, despite lower volumes

Key figures	Q3 2019	Q3 2018	Q2 2019
External sales volumes, kmt	316	343	348
Underlying EBITDA, NOK million	1 099	931	1 279
Underlying EBIT, NOK million	559	497	772
Underlying RoaCE, % LTM*	5.9%	7.8%	5.9%

## Underlying EBIT

NOK million



## Results Q3 19 vs Q3 18

- Improved margins
- Higher costs
- Lower volumes due to weaker markets

## Outlook Q4 19

- Continued volume decline due to softening market demand
- Softening market conditions for remelt operations

\*URoaCE calculated as underlying EBIT last 4 quarters less 25% tax / average capital employed last 4 quarters



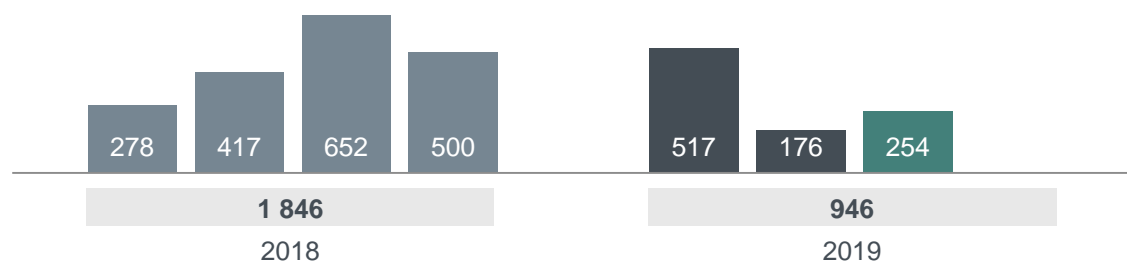
# Energy

## Results down on lower volumes and prices

Key figures	Q3 2019	Q3 2018	Q2 2019
Power production, GWh	2 273	2 888	1 993
Net spot sales, GWh	582	1 315	289
Southwest Norway spot price (NO2), NOK/MWh	328	475	360
Underlying EBITDA, NOK million	319	716	242
Underlying EBIT, NOK million	254	652	176
Underlying RoaCE, % LTM*	21,3%	17,3%	21,2%

### Underlying EBIT

NOK million



### Results Q3 19 vs Q3 18

- Significantly lower volumes
- Lower power prices

### Outlook Q4 19

- Continued low production levels
- Volume and price uncertainty

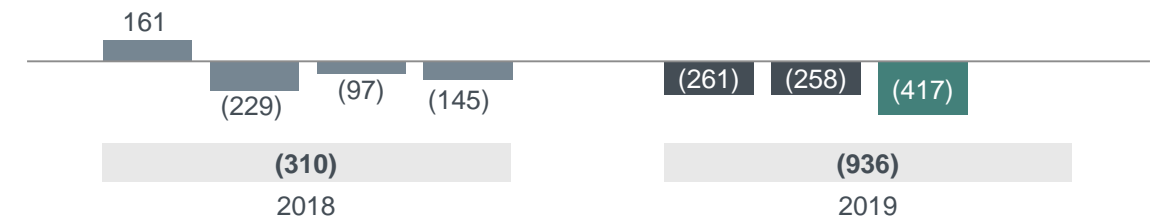
\*URoaCE calculated as underlying EBIT last 4 quarters less 70% tax / average capital employed last 4 quarters



# Other and Eliminations

Underlying EBIT, NOK million	Q3 2019	Q3 2018	Q2 2019
Other	(160)	(190)	(253)
Eliminations	(257)	93	(5)
<b>Other and Eliminations</b>	<b>(417)</b>	<b>(97)</b>	<b>(258)</b>

## Underlying EBIT NOK million



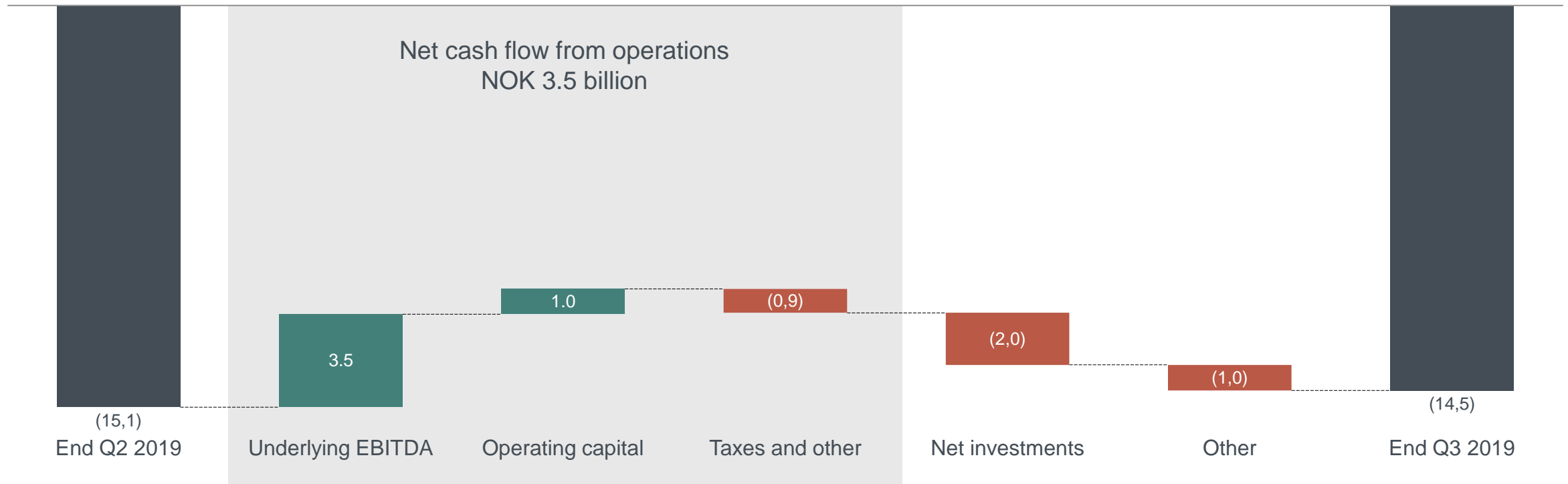


# Net debt reduced in Q3 2019



Higher operating cash flow supported by further NOC release

NOK billion



# Adjusted net debt up in Q3

Driven by increased net pension liability on lower discount rates

NOK billion	Sep 30, 2019	Jun 30, 2019	Mar 31 2019
Cash and cash equivalents	10.6	10.6	6.1
Short-term investments	0.9	1.1	1.3
Short-term debt	(6.1)	(8.2)	(8.9)
Long-term debt	(20.0)	(18.6)	(10.6)
<b>Net cash/(debt)</b>	<b>(14.5)</b>	<b>(15.1)</b>	<b>(12.1)</b>
Net pension liability at fair value, net of expected tax benefit	(10.3)	(8.8)	(8.4)
Other adjustments <sup>1)</sup>	(4.8)	(4.0)	(3.9)
<b>Adjusted net debt ex. EAI</b>	<b>(29.6)</b>	<b>(27.9)</b>	<b>(24.4)</b>
Net debt in EAI	(5.4)	(5.4)	(5.7)
<b>Adjusted net debt incl. EAI</b>	<b>(35.0)</b>	<b>(33.3)</b>	<b>(30.1)</b>

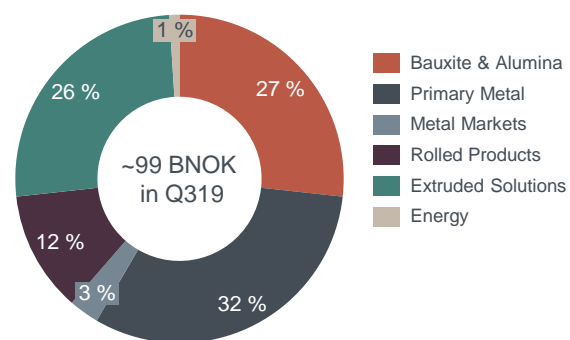
1) "Other adjustments" include, e.g., asset retirement obligations, cash and short-term investments in Industriforsikring.



# Capital return dashboard for Hydro Q3 2019

Hydro targets URoaCE above 10% over the cycle

Capital employed<sup>1)</sup>



**URoaCE**

**2.4%**  
LTM Q3 2019<sup>3)</sup>

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10% target over the cycle

**FFO/aND**

**24%**  
LTM Q3 2019<sup>4)</sup>

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>40% target over the cycle

**Free cash flow**

**0.7 BNOK**  
YTD Q3 2019<sup>5)</sup>

**Improvement program**

**On track**  
for 2019 target

---

2023 target 6.4 + 0.9 BNOK<sup>2)</sup>  
2019 target 0.5 BNOK

**Net operating capital**

**2.3 BNOK release**  
YTD Q3 2019

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Target 12 NOC days reduction  
(~ 4 BNOK) from end-2018 to end-2020

**Capex**

**6.5 BNOK**  
YTD Q3 2019

---

2019 estimate ~10.5 BNOK



1) Graph excludes (7.8) BNOK in capital employed in Other & Elimination  
 2) 6.4 BNOK in improvement ambitions, 0.9 BNOK in Rolled Products restructuring. 2019 Rolled Products target ~ 0 BNOK  
 3) URoaCE calculated as underlying EBIT last 4 quarters less 30% tax / average capital employed last 4 quarters. RoaCE tax is calculated on UEBIT excluding net Income from equity accounted investments.  
 4) Funds from operation LTM/Average LTM adjusted net debt  
 5) Free cash flow – operating cash flow less investing cash flow excl. sales/purchases of short-term investments



**Lifting profitability,  
driving sustainability**

## Priorities

- Safe and efficient operations
- Portfolio optimization, restructuring and compensating measures in challenging market
- Delivering on improvement programs, including returning Brazilian assets to full production and operational excellence
- Net operating capital release and strict capital discipline
- Differentiating through low-carbon position





# Additional information

# Driving long-term shareholder value

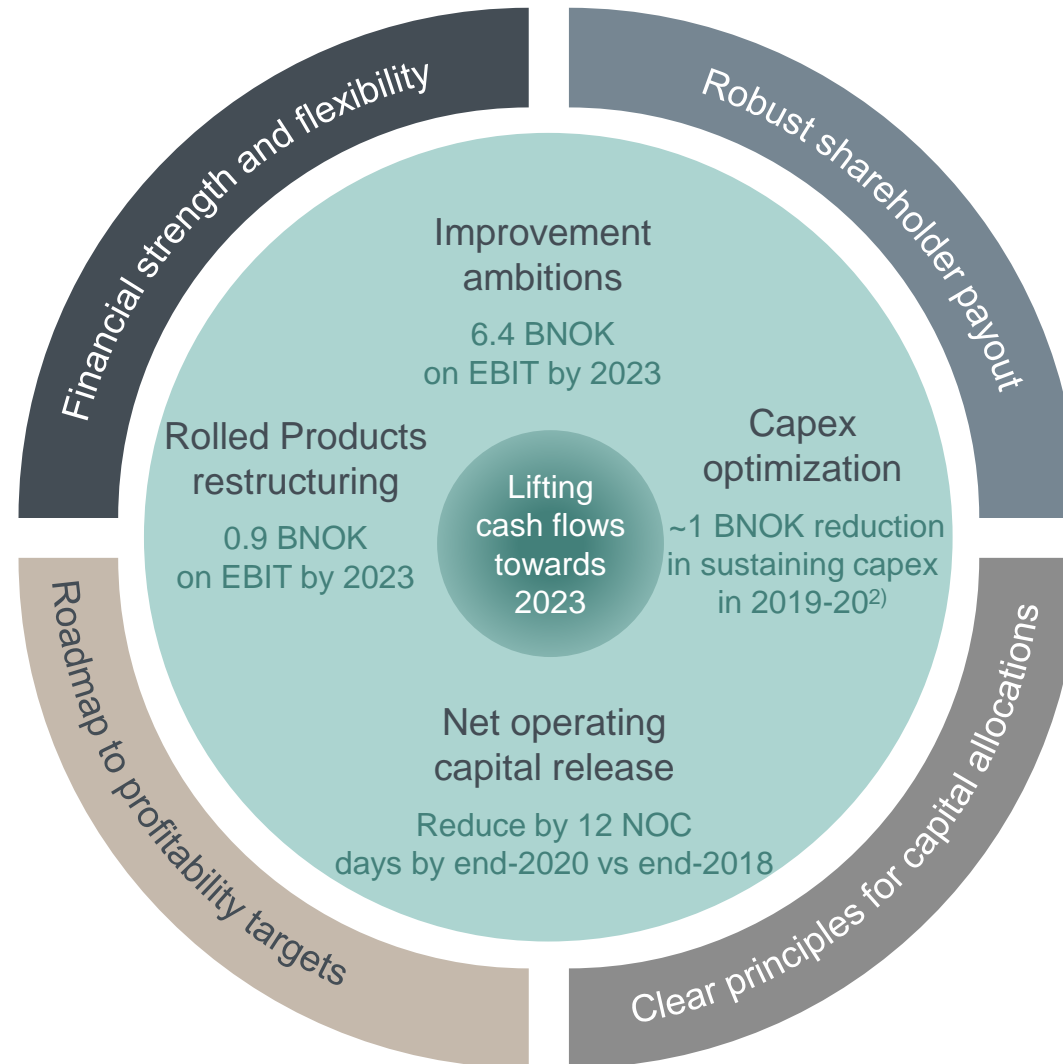


## Financial strength and flexibility

- Maintain investment grade credit rating
  - Currently BBB (S&P), Baa2 (Moody's<sup>1)</sup>)
- Balance sheet ratio targets over the cycle:
  - Funds from operations to adjusted net debt > 40%
  - Adjusted net debt to equity < 55%
- Strong liquidity

## Roadmap to profitability targets

- URoaCE > 10% over the cycle for Hydro group
- URoaCE > CoC for business areas over the cycle
- Differentiated return requirements by and within business areas



## Robust shareholder payout

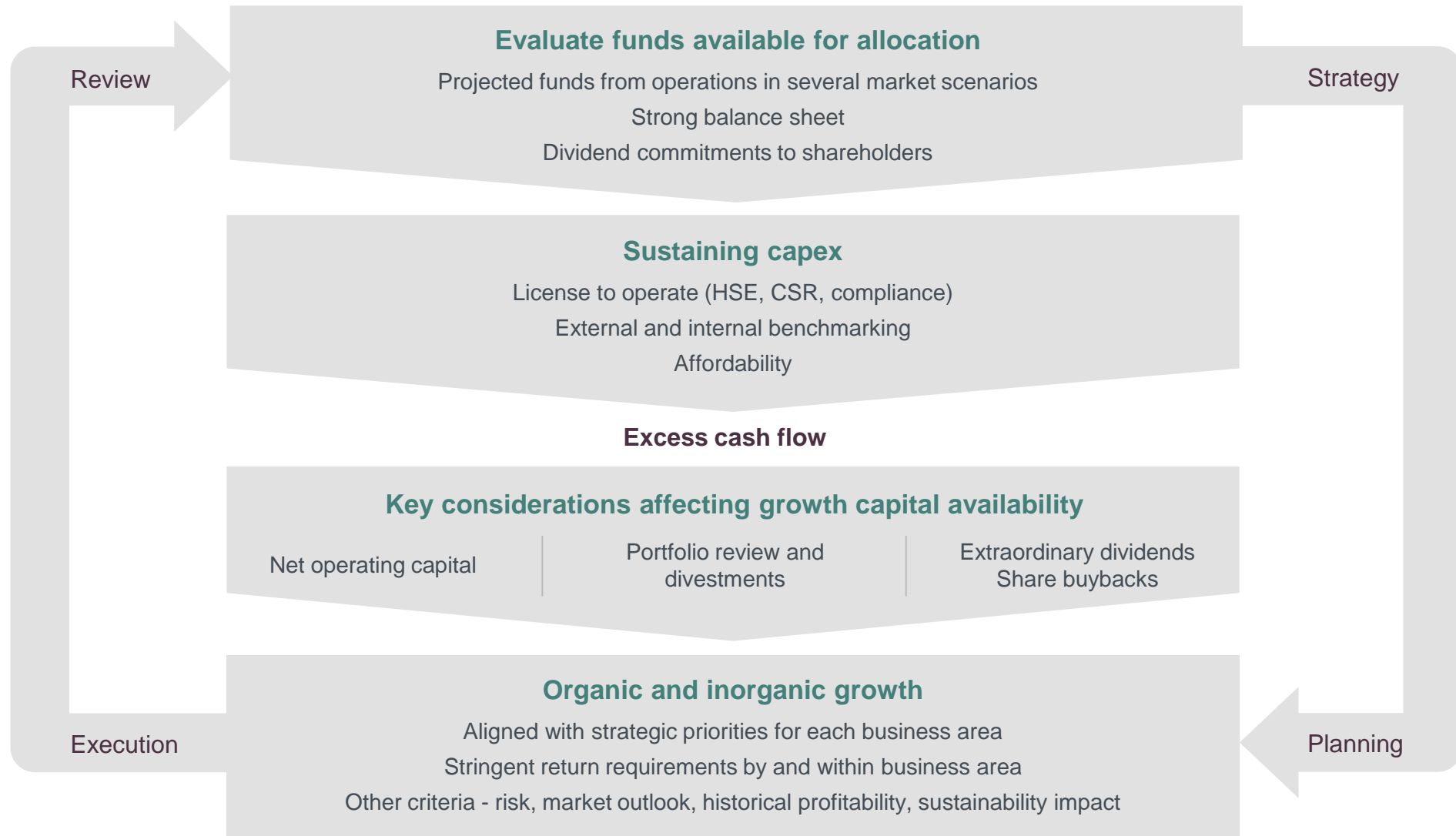
- 40% payout ratio of Net Income over the cycle
- Dividend floor of 1.25 NOK/share
- Supplementary share buybacks or extraordinary dividends

## Clear principles for capital allocation

- Capital allocation in line with strategic priorities and return requirements by business area
- Competitive and affordable sustaining capex
- Strict prioritization, continuous review and reallocation

1) Moody's revised Hydro's credit rating outlook from stable to negative on March 28, 2019  
 2) Compared to CMD 2018

# Clear principles for capital allocation



# Shareholder and financial policy

- Hydro aims to give its shareholders competitive returns compared to alternative investments in comparable companies
- Dividend policy
  - Average ordinary payout ratio: 40% of reported net income over the cycle
  - 1.25 NOK/share to be considered as a floor, as of Q4 2016
  - Share buybacks and extraordinary dividends as supplement in periods with strong financials and outlook
  - 2018 dividend 1.25 NOK/share, vs. 1.75 NOK/share in 2017
  - Five-year average ordinary pay-out ratio 2014-2018 of ~57%
- Maintain investment-grade credit rating
  - Currently: BBB stable (S&P) & Baa2 stable (Moody's)
  - Competitive access to capital is important for Hydro's business model (counterparty risk and partnerships)
- Financial ratios over the business cycle
  - Funds from operations to adjusted net debt > 40%
  - Adjusted net debt to equity < 55%
- Strong liquidity
  - NOK 10.6 billion in cash and cash equivalents, end-Q3 2019
  - USD 1.7 billion in multi-currency revolving credit facility maturing in 2020

# Hedging policy



- Hedging strategy
  - Fluctuating with the market: primarily exposed to LME and USD
  - Volatility mitigated by strong balance sheet
  - Strengthening relative position to ensure competitiveness
- Diversified business
  - Upstream cyclicalities balanced with more stable earnings downstream
  - Exposed to different markets and cycles
- Bauxite & Alumina
  - Currency exposure, mainly USD and BRL
  - Exposed to LME and Platts alumina index prices
- Primary Metal
  - Operational LME hedging - one-month forward sales
  - Currency exposure, mainly USD, NOK and BRL
- Metal Markets, Rolled Products
  - Operational LME and currency hedging to secure margin
- Flexibility to hedge LME or currency in certain cases



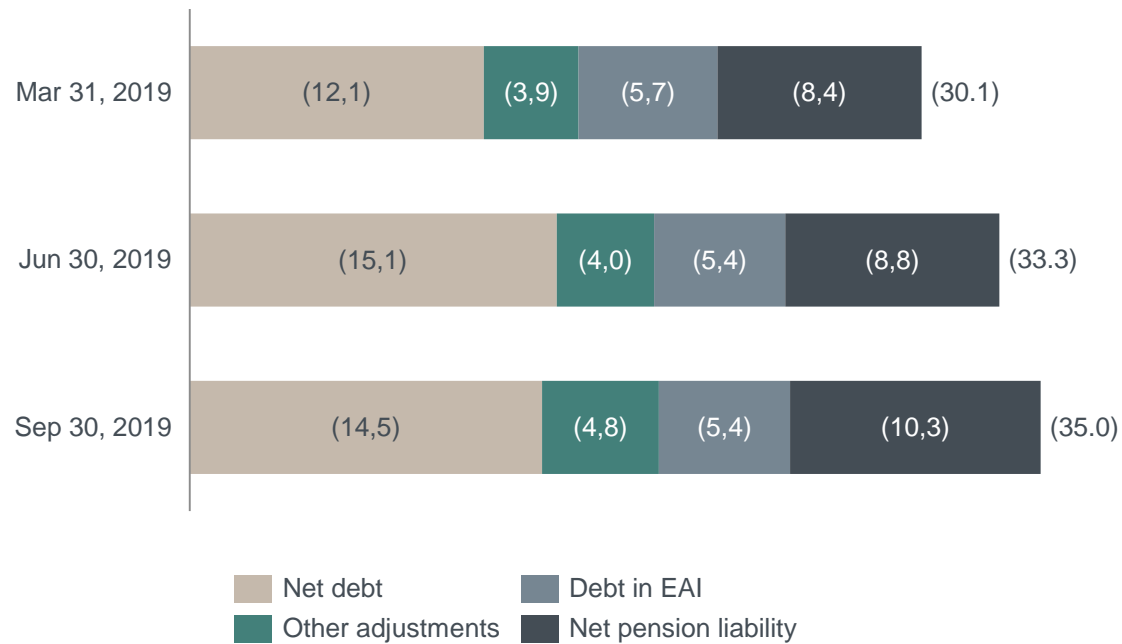
# Maintaining a solid balance sheet and investment-grade credit rating



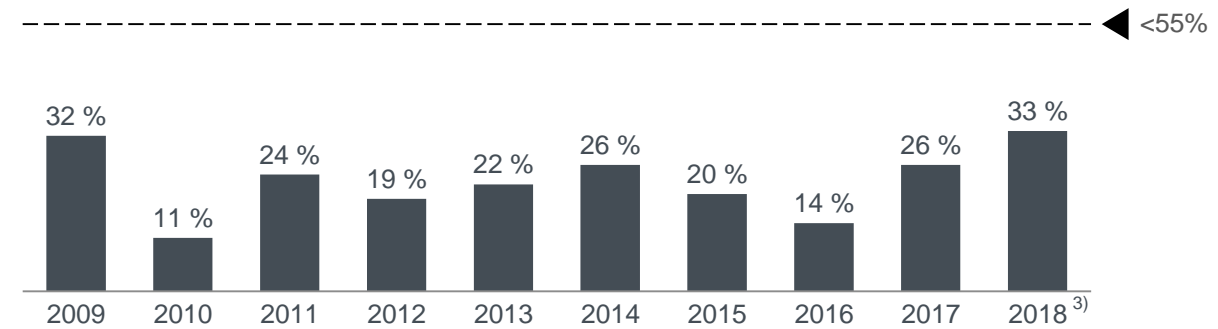
Funds from operations determine the balance sheet structure

Adjusted net debt

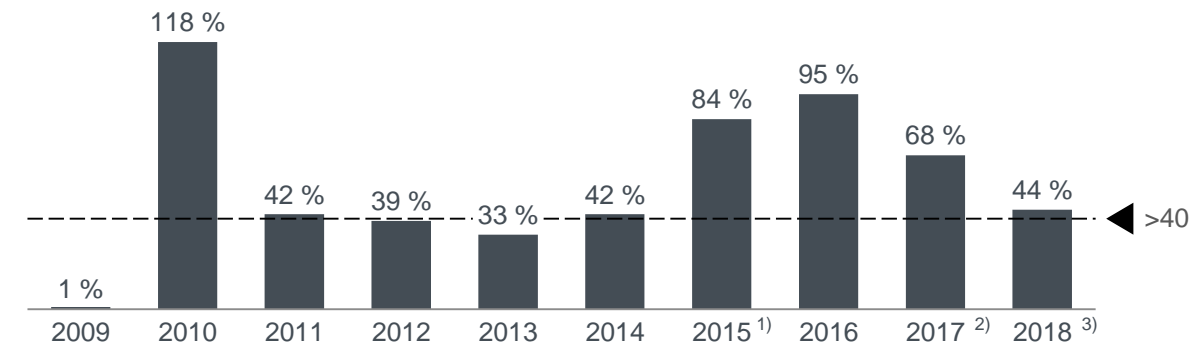
BNOK



Adjusted net debt / Equity



Funds from operations / Adjusted net debt



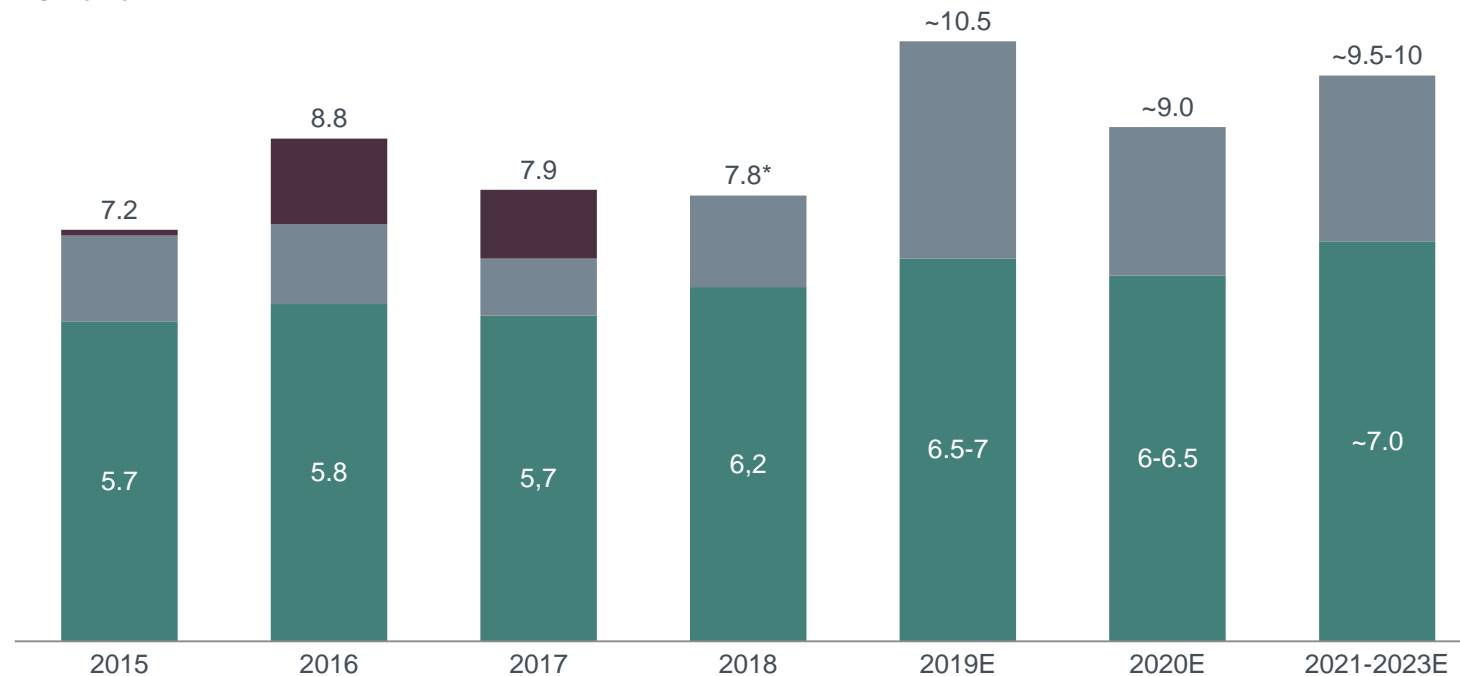
1) 2015 FFO/aND ratio has been restated due to change of definition  
 2) Extruded Solutions reflected as 50% equity accounted investment Q1-Q3 2017 and fully consolidated in Q4 2017

# Project pipeline to be based on updated capital allocation framework and strategic priorities



Majority of sustaining capex allocated upstream

NOK billion



- Karmøy technology pilot (net of ENOVA support)
- Growth projects and incremental growth
- Sustaining capex

## Main sustaining projects

- Alunorte robustness
- Pipeline replacement in B&A
- Smelter relining and asset integrity in PM
- Paragominas new mine area (from 2022)

## Main growth and return-seeking projects

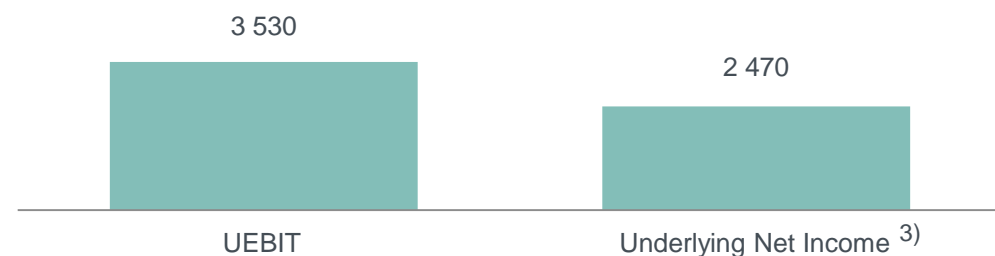
- Husnes restart and upgrade
- Automation, process control and efficiency in PM
- Selected customer-driven growth in ES
- Energy wind and battery storage
- Fuel switch project in B&A

\*Excluding the Pis/Cofins adjustments in Brazil in 2018. Including the adjustment, 2018 capex amounted to BNOK 7.0  
 Capex including Extruded Solutions  
 Growth and return-seeking capex guidance only includes capex necessary for delivering on targeted improvement ambitions

# Significant exposure to commodity and currency fluctuations

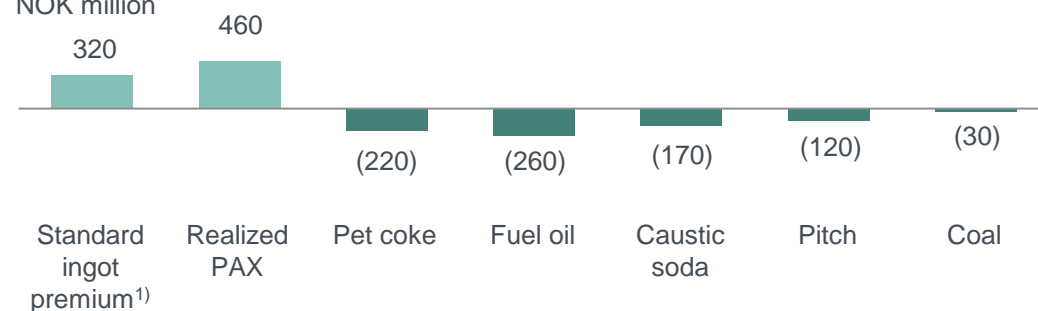
## Aluminium price sensitivity +10%

NOK million



## Other commodity prices, sensitivity +10% <sup>1)</sup>

NOK million



1) Europe duty paid

## Currency sensitivities +10%

Sustainable effect:

NOK million	USD	BRL	EUR
UEBIT	3 600	(1 060)	(240)

One-off reevaluation effect:

Financial items	-	820	(3 470)
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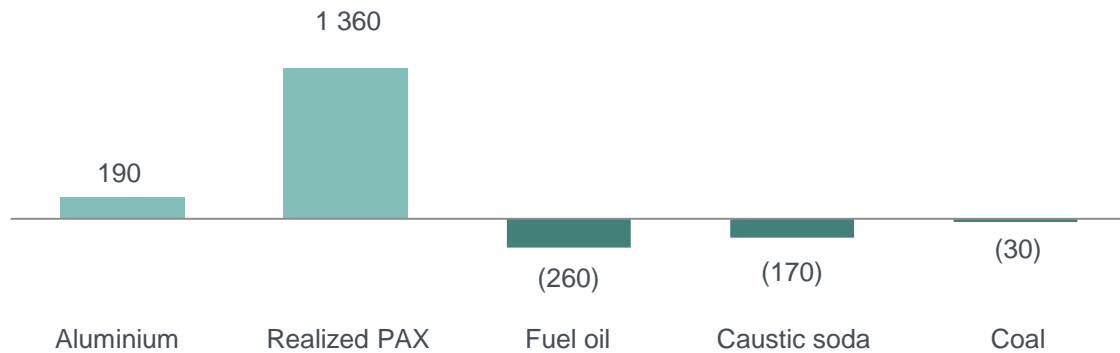
- Annual sensitivities based on normal annual business volumes (incl. 100% production at Alunorte, Paragominas and Albras) and Q319 realized prices as a starting point LME USD 1 780 per mt, standard ingot premium 150 USD/mt, PAX 315 USD/mt, fuel oil USD 450 per mt, petroleum coke USD 275 per mt, pitch 675 USD/t, caustic soda USD 330 per mt, coal USD 45 per mt, USD/NOK 8.8, BRL/NOK 2.2, EUR/NOK 9.9
- Aluminium price sensitivity is net of aluminium price indexed costs and excluding unrealized effects related to operational hedging
- BRL sensitivity calculated on a long-term basis with fuel oil assumed in USD. In the short-term, fuel oil is BRL-denominated
- Excludes effects of priced contracts in currencies different from underlying currency exposure (transaction exposure)
- Currency sensitivity on financial items includes effects from intercompany positions
- 2018 Platts alumina index (PAX) exposure used
- U NI sensitivity calculated as U EBIT sensitivity after 30% tax

# Bauxite & Alumina sensitivities



## Annual sensitivities on underlying EBIT if +10% in price

NOK million



## Currency sensitivities +10%

NOK million	USD	BRL	EUR
UEBIT	1 190	(720)	-

## Revenue impact

- ~14% of 3-month LME price per tonne alumina with one month lag
- Realized alumina price lags PAX by one month

## Cost impact

### Bauxite

- ~2.45 tonnes bauxite per tonne alumina
- Pricing partly LME-linked

### Caustic soda

- ~0.1 tonnes per tonne alumina
- Prices based on IHS Chemical, pricing mainly monthly per shipment

### Energy

- ~0.12 tonnes coal per tonne alumina, Platts prices, one year volume contracts, weekly per shipment pricing
- ~0.11 tonnes heavy fuel oil per tonne alumina, prices set by ANP/Petrobras in Brazil, weekly pricing (ANP) or anytime (Petrobras)
- Increased use of coal as energy source in Alunorte

Annual sensitivities based on normal annual business volumes (incl. 100% production at Alunorte, Paragominas and Albras) and Q319 realized prices as a starting point LME USD 1 780 per mt, standard ingot premium 150 USD/mt, PAX 315 USD/mt, fuel oil USD 450 per mt, petroleum coke USD 275 per mt, pitch 675 USD/t, caustic soda USD 330 per mt, coal USD 45 per mt, USD/NOK 8.8, BRL/NOK 2.2, EUR/NOK 9.9  
BRL sensitivity calculated on a long-term basis with fuel oil assumed in USD. In the short-term, fuel oil is BRL-denominated. 2018 Platts alumina index (PAX) exposure used

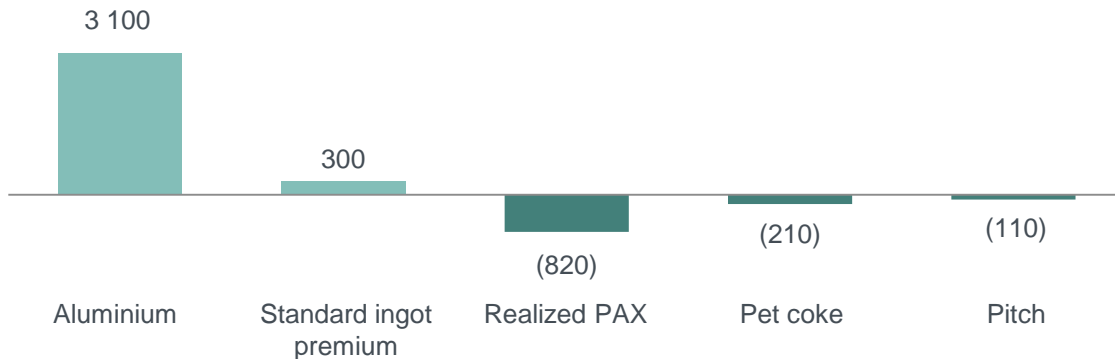


# Primary Metal sensitivities



## Annual sensitivities on underlying EBIT if +10% in price

NOK million



## Currency sensitivities +10%

NOK million	USD	BRL	EUR
UEBIT	2 000	(340)	(250)

## Revenue impact

- Realized price lags LME spot by ~1-2 months
- Realized premium lags market premium by ~2-3 months

## Cost impact

### Alumina

- ~1.9 tonnes per tonne aluminium
- ~14.5% of 3-month LME price per tonne alumina, increasing volumes priced on Platts index
- ~ 2-3 months lag

### Carbon

- ~0.40 tonnes petroleum coke per tonne aluminium, Pace Jacobs Consultancy, 2-3 year volume contracts, quarterly or half yearly pricing
- ~0.08 tonnes pitch per tonne aluminium, CRU, 2-3 year volume contracts, quarterly pricing

### Power

- 13.9 MWh per tonne aluminium
- Long-term power contracts with indexations

# Items excluded from underlying results - 2019



NOK million (+=loss/)=gain)		Q1 2019	Q2 2019	Q3 2019
Alunorte agreements - provision	Bauxite & Alumina	35	14	30
<b>Total impact</b>	<b>Bauxite &amp; Alumina</b>	<b>35</b>	<b>14</b>	<b>30</b>
Unrealized derivative effects on LME related contracts	Primary Metal	122	(15)	(27)
Unrealized effects on power contracts	Primary Metal	27	(35)	(42)
<b>Total impact</b>	<b>Primary Metal</b>	<b>149</b>	<b>(50)</b>	<b>(69)</b>
Unrealized derivative effects on LME related contracts	Metal Markets	222	(62)	(19)
<b>Total impact</b>	<b>Metal Markets</b>	<b>222</b>	<b>(62)</b>	<b>(19)</b>
Unrealized derivative effects on LME related contracts	Rolled Products	(77)	60	(24)
Metal effect	Rolled Products	267	3	123
Significant rationalization charges and closure costs	Rolled Products	-	-	1 145
Other effects	Rolled Products	-	-	(99)
<b>Total impact</b>	<b>Rolled Products</b>	<b>191</b>	<b>63</b>	<b>1 145</b>
Unrealized derivative effects on LME related contracts	Extruded Solutions	(77)	27	(44)
Impairment charges	Extruded Solutions	-	28	95
Significant rationalization charges and closure costs	Extruded Solutions	-	200	61
Pension	Extruded Solutions	-	-	(62)
Transaction related effects	Extruded Solutions	-	35	-
Other effects	Extruded Solutions	26	-	59
<b>Total impact</b>	<b>Extruded Solutions</b>	<b>(51)</b>	<b>289</b>	<b>109</b>
Unrealized derivative effects on power contracts	Energy	6	2	1
Other effects	Energy	-	-	(42)
<b>Total impact</b>	<b>Energy</b>	<b>6</b>	<b>2</b>	<b>(41)</b>
Unrealized derivative effects on power contracts	Other and eliminations	(21)	(39)	(5)
Unrealized derivative effects on LME related contracts	Other and eliminations	10	1	(7)
<b>Total impact</b>	<b>Other and eliminations</b>	<b>(11)</b>	<b>(39)</b>	<b>(12)</b>
<b>Items excluded from underlying EBIT</b>	<b>Hydro</b>	<b>539</b>	<b>219</b>	<b>1 144</b>
Net foreign exchange (gain)/loss	Hydro	(208)	451	1 403
<b>Items excluded from underlying income (loss) before tax</b>	<b>Hydro</b>	<b>331</b>	<b>670</b>	<b>2 547</b>
Calculated income tax effect	Hydro	(83)	(198)	(550)
<b>Items excluded from underlying net income (loss)</b>	<b>Hydro</b>	<b>248</b>	<b>472</b>	<b>1 996</b>

# Items excluded from underlying results - 2018



NOK million (+=loss/)=gain)		Q1 2018	Q2 2018	Q3 2018	Q4 2018	Year 2018
Alunorte agreements - provision	Bauxite & Alumina	-	-	519	-	519
<b>Total impact</b>	<b>Bauxite &amp; Alumina</b>	<b>-</b>	<b>-</b>	<b>519</b>	<b>-</b>	<b>519</b>
Unrealized derivative effects on LME related contracts	Primary Metal	(114)	(41)	101	(89)	(143)
Unrealized effects on power contracts	Primary Metal	20	20	(194)	(64)	(218)
<b>Total impact</b>	<b>Primary Metal</b>	<b>(94)</b>	<b>(21)</b>	<b>(93)</b>	<b>(153)</b>	<b>(361)</b>
Unrealized derivative effects on LME related contracts	Metal Markets	(128)	(32)	104	(144)	(200)
<b>Total impact</b>	<b>Metal Markets</b>	<b>(128)</b>	<b>(32)</b>	<b>104</b>	<b>(144)</b>	<b>(200)</b>
Unrealized derivative effects on LME related contracts	Rolled Products	108	(82)	11	74	111
Metal effect	Rolled Products	47	(60)	(153)	93	(73)
Significant rationalization charges and closure costs	Rolled Products	-	-	-	39	39
<b>Total impact</b>	<b>Rolled Products</b>	<b>154</b>	<b>(142)</b>	<b>(141)</b>	<b>206</b>	<b>77</b>
Unrealized derivative effects on LME related contracts	Extruded Solutions	47	(151)	211	192	299
Significant rationalization charges and closure costs	Extruded Solutions	-	-	-	40	40
Pension	Extruded Solutions	-	-	-	40	40
Other effects	Extruded Solutions	-	-	-	237	237
<b>Total impact</b>	<b>Extruded Solutions</b>	<b>47</b>	<b>(151)</b>	<b>211</b>	<b>509</b>	<b>616</b>
Unrealized derivative effects on power contracts	Energy	-	-	-	(7)	(7)
<b>Total impact</b>	<b>Energy</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(7)</b>	<b>(7)</b>
Unrealized derivative effects on power contracts	Other and eliminations	(107)	72	11	(11)	(36)
Unrealized derivative effects on LME related contracts	Other and eliminations	(26)	1	8	(11)	(27)
Other effects	Other and eliminations	-	-	-	(34)	(34)
<b>Total impact</b>	<b>Other and eliminations</b>	<b>(134)</b>	<b>73</b>	<b>19</b>	<b>(56)</b>	<b>(97)</b>
<b>Items excluded from underlying EBIT</b>	<b>Hydro</b>	<b>(155)</b>	<b>(274)</b>	<b>620</b>	<b>356</b>	<b>547</b>
Net foreign exchange (gain)/loss	Hydro	333	306	257	408	1 303
<b>Items excluded from underlying income (loss) before tax</b>	<b>Hydro</b>	<b>178</b>	<b>32</b>	<b>877</b>	<b>764</b>	<b>1 851</b>
Calculated income tax effect	Hydro	(54)	(8)	(105)	(188)	(355)
<b>Items excluded from underlying net income (loss)</b>	<b>Hydro</b>	<b>125</b>	<b>24</b>	<b>772</b>	<b>575</b>	<b>1 495</b>

# Operating segment information



## Underlying EBIT

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	756	662	413	1 872	741	364	685	493	153	415	481	3 704	2 282
Primary Metal	900	1 486	1 298	1 377	823	755	861	(677)	(771)	(604)	(39)	5 061	1 762
Metal Markets	24	244	91	185	178	237	(3)	275	190	299	362	544	686
Rolled Products	106	84	95	95	232	212	82	(113)	138	75	166	380	413
Extruded Solutions	281	329	209	284	734	957	497	202	593	772	559	1 103	2 390
Energy	423	284	368	457	278	417	652	500	517	176	254	1 531	1 846
Other and Eliminations	(207)	(159)	(28)	(715)	161	(229)	(97)	(145)	(261)	(258)	(417)	(1 108)	(310)
<b>Total</b>	<b>2 284</b>	<b>2 930</b>	<b>2 446</b>	<b>3 555</b>	<b>3 147</b>	<b>2 713</b>	<b>2 676</b>	<b>534</b>	<b>559</b>	<b>875</b>	<b>1 366</b>	<b>11 215</b>	<b>9 069</b>

## Underlying EBITDA

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	1 334	1 248	1 057	2 551	1 370	937	1 193	877	758	1 004	1 071	6 190	4 377
Primary Metal	1 392	1 991	1 795	1 900	1 349	1 309	1 424	(176)	(180)	(27)	550	7 078	3 906
Metal Markets	47	268	114	209	201	262	22	301	219	328	395	638	786
Rolled Products	307	297	312	325	456	438	314	133	384	326	430	1 240	1 340
Extruded Solutions	281	329	209	728	1 155	1 383	931	645	1 099	1 279	1 099	1 547	4 114
Energy	476	337	424	519	339	479	716	566	583	242	319	1 757	2 100
Other and Eliminations	(200)	(151)	(21)	(708)	169	(223)	(90)	(135)	(231)	(224)	(385)	(1 081)	(280)
<b>Total</b>	<b>3 637</b>	<b>4 319</b>	<b>3 889</b>	<b>5 524</b>	<b>5 038</b>	<b>4 586</b>	<b>4 510</b>	<b>2 210</b>	<b>2 633</b>	<b>2 928</b>	<b>3 479</b>	<b>17 369</b>	<b>16 344</b>



# Operating segment information



## EBIT

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	756	662	413	1 872	741	364	166	493	118	401	450	3 704	1 763
Primary Metal	797	1 538	1 282	1 112	917	776	954	(524)	(919)	(554)	30	4 729	2 123
Metal Markets	(13)	282	59	158	305	270	(107)	419	(31)	361	381	485	886
Rolled Products	450	84	(22)	-	78	353	223	(319)	(53)	12	(978)	512	336
Extruded Solutions	313	273	215	1 722	687	1 109	286	(307)	644	483	449	2 522	1 774
Energy	423	284	368	457	278	417	652	507	510	174	295	1 531	1 853
Other and Eliminations	(316)	(176)	7	(810)	295	(303)	(117)	(89)	(249)	(220)	(405)	(1 295)	(214)
<b>Total</b>	<b>2 410</b>	<b>2 946</b>	<b>2 323</b>	<b>4 511</b>	<b>3 301</b>	<b>2 986</b>	<b>2 057</b>	<b>178</b>	<b>20</b>	<b>656</b>	<b>222</b>	<b>12 189</b>	<b>8 522</b>

## EBITDA

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	1 334	1 248	1 057	2 551	1 370	937	674	877	724	989	1 040	6 190	3 858
Primary Metal	1 289	2 043	1 779	1 635	1 443	1 330	1 517	(23)	(328)	23	619	6 747	4 267
Metal Markets	9	306	82	182	329	295	(82)	445	(2)	390	414	579	986
Rolled Products	651	296	196	230	302	580	455	(73)	194	263	(715)	1 372	1 263
Extruded Solutions	313	273	215	2 166	1 108	1 534	720	136	1 150	1 017	1 085	2 966	3 498
Energy	476	337	424	519	339	479	716	573	576	240	361	1 757	2 107
Other and Eliminations	(310)	(168)	13	(803)	302	(296)	(110)	(80)	(219)	(186)	(373)	(1 268)	(183)
<b>Total</b>	<b>3 762</b>	<b>4 335</b>	<b>3 766</b>	<b>6 481</b>	<b>5 193</b>	<b>4 860</b>	<b>3 890</b>	<b>1 854</b>	<b>2 094</b>	<b>2 737</b>	<b>2 430</b>	<b>18 344</b>	<b>15 796</b>

# Operating segment information



## Total revenue

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	5 911	5 858	5 612	8 040	6 309	6 877	6 749	8 613	4 866	5 745	6 211	25 421	28 548
Primary Metal	8 641	9 575	8 958	9 291	10 170	10 083	9 984	9 196	9 023	8 937	8 718	36 466	39 434
Metal Markets	12 149	13 604	11 862	12 991	13 898	14 205	13 230	12 903	12 959	13 301	12 326	50 606	54 237
Rolled Products	6 277	6 569	6 435	6 434	6 797	7 145	6 791	6 223	6 844	6 623	6 672	25 715	26 955
Extruded Solutions				14 153	15 911	16 980	15 976	15 218	16 013	17 270	15 233	14 153	64 085
Energy	1 955	1 750	1 831	2 169	1 762	2 163	2 488	2 267	2 261	1 815	1 990	7 705	8 681
Other and Eliminations	(11 906)	(12 765)	(11 900)	(14 276)	(14 877)	(16 198)	(15 452)	(16 034)	(14 382)	(14 515)	(13 633)	(50 847)	(62 562)
<b>Total</b>	<b>23 026</b>	<b>24 591</b>	<b>22 799</b>	<b>38 803</b>	<b>39 971</b>	<b>41 254</b>	<b>39 766</b>	<b>38 386</b>	<b>37 583</b>	<b>39 176</b>	<b>37 517</b>	<b>109 220</b>	<b>159 377</b>

## External revenue

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	3 382	3 417	3 293	5 095	3 509	3 640	3 016	4 232	2 370	2 692	3 684	15 188	14 396
Primary Metal	1 700	1 944	1 865	2 068	2 018	1 993	2 312	1 505	1 390	1 457	1 642	7 578	7 829
Metal Markets	11 094	12 080	10 675	10 414	10 901	10 905	10 575	10 121	10 139	10 577	9 742	44 264	42 502
Rolled Products	6 153	6 629	6 380	6 375	6 870	7 011	6 773	6 287	6 777	6 654	6 639	25 538	26 940
Extruded Solutions				14 083	15 932	16 877	15 934	15 280	15 924	17 271	15 214	14 083	64 023
Energy	687	514	582	767	738	823	1 151	961	983	519	594	2 550	3 673
Other and Eliminations	9	6	3	-	4	6	5	(1)	-	5	1	18	14
<b>Total</b>	<b>23 026</b>	<b>24 591</b>	<b>22 799</b>	<b>38 803</b>	<b>39 971</b>	<b>41 254</b>	<b>39 766</b>	<b>38 386</b>	<b>37 583</b>	<b>39 176</b>	<b>37 517</b>	<b>109 220</b>	<b>159 377</b>

# Operating segment information



## Internal revenue

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	2 528	2 441	2 320	2 944	2 800	3 237	3 733	4 381	2 496	3 052	2 527	10 234	14 152
Primary Metal	6 941	7 631	7 093	7 223	8 152	8 090	7 672	7 691	7 633	7 480	7 075	28 888	31 605
Metal Markets	1 054	1 523	1 187	2 577	2 997	3 301	2 656	2 781	2 820	2 724	2 584	6 341	11 735
Rolled Products	124	(61)	55	59	(72)	134	18	(64)	66	(31)	33	178	15
Extruded Solutions				70	(21)	103	42	(62)	89	(1)	18	70	61
Energy	1 267	1 236	1 249	1 403	1 024	1 340	1 337	1 306	1 278	1 296	1 382	5 155	5 007
Other and Eliminations	(11 915)	(12 772)	(11 903)	(14 276)	(14 881)	(16 204)	(15 457)	(16 033)	(14 382)	(14 520)	(13 620)	(50 865)	(62 576)
<b>Total</b>	-	-	-	-	-	-	-	-	-	-	-	-	-

## Share of profit /(loss) in equity accounted investments

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	-	-	-	-	-	-	-	-	-	-	-	-	-
Primary Metal	98	231	159	258	210	280	238	(5)	32	24	150	745	722
Metal Markets	-	-	-	-	-	-	-	-	-	-	-	-	-
Rolled Products	-	-	-	-	-	-	-	-	-	-	-	-	-
Extruded Solutions	313	273	215	12	17	11	14	10	12	5	-	812	53
Energy	-	-	-	(7)	(10)	(11)	(4)	(11)	(9)	(9)	(4)	(7)	(35)
Other and Eliminations	(1)	(13)	(3)	(7)	3	5	(20)	35	(32)	27	(23)	(24)	24
<b>Total</b>	<b>409</b>	<b>491</b>	<b>371</b>	<b>256</b>	<b>221</b>	<b>286</b>	<b>229</b>	<b>30</b>	<b>3</b>	<b>47</b>	<b>123</b>	<b>1 527</b>	<b>765</b>

# Operating segment information

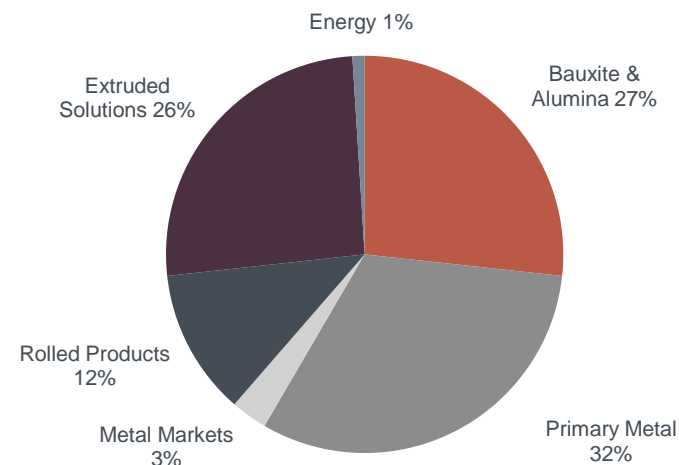


Return on average capital employed <sup>1)</sup> (RoaCE)

	Reported RoaCE							Underlying RoaCE						
	2018	2017	2016	2015	2014	2013	2012	2018	2017	2016	2015	2014	2013	2012
Bauxite & Alumina	4.3%	8.5%	2.7 %	5.3 %	(0.1) %	(2.5) %	(1.5) %	5.5%	8.5%	2.8 %	5.3 %	(0.1) %	(2.2) %	(1.6) %
Primary Metal	5.4%	11.8%	5.2 %	10.7 %	10.4 %	2.3 %	(3.1) %	4.6%	12.6%	5.2 %	11.0 %	10.4 %	3.9 %	0.4 %
Metal Markets	26.6%	18.6%	19.6 %	5.4 %	21.9 %	22.3 %	4.3 %	20.6%	20.9%	15.9 %	11.4 %	19.4 %	19.9 %	6.6 %
Rolled Products	1.9%	3.2%	6.2 %	1.1 %	8.6 %	0.7 %	6.7 %	2.4%	2.4%	4.6 %	7.8 %	5.3 %	5.2 %	5.3 %
Extruded Solutions <sup>2)</sup>	5.4%	13.4%						7.2%	6.6%					
Energy	20.6%	17.5%	18.1 %	17.2 %	17.4 %	36.1 %	23.0 %	20.5%	17.5%	18.1 %	17.3 %	17.4 %	36.1 %	23.2 %
<b>Hydro Group</b>	<b>5.8%</b>	<b>11.2%</b>	<b>6.5 %</b>	<b>7.5 %</b>	<b>4.9 %</b>	<b>1.1 %</b>	<b>(0.5) %</b>	<b>6.4%</b>	<b>9.6%</b>	<b>5.1 %</b>	<b>9.2 %</b>	<b>5.2 %</b>	<b>2.3 %</b>	<b>0.9 %</b>

## Capital employed – upstream focus

NOK million	Sep 30, 2019
Bauxite & Alumina	28 722
Primary Metal	34 625
Metal Markets	2 704
Rolled Products	12 443
Extruded Solutions	27 577
Energy	968
Other and Eliminations	(7 845)
<b>Total</b>	<b>99 195</b>



Graph excludes BNOK (7.8) in capital employed in Other and Eliminations

1) RoaCE at business area level is calculated using 25% tax rate (30% tax rate applied for years prior to 2017). For Energy, 70% tax rate is used for 2018, 65% for 2017, 60% for 2016 and 55% for prior years. 2018 RoaCE has been restated due to the implementation of IFRS16 Leases.

2) Extruded Solutions reflected as 50% equity accounted investment Q1-Q3 2017 and fully consolidated from Q4 2017

# Operating segment information



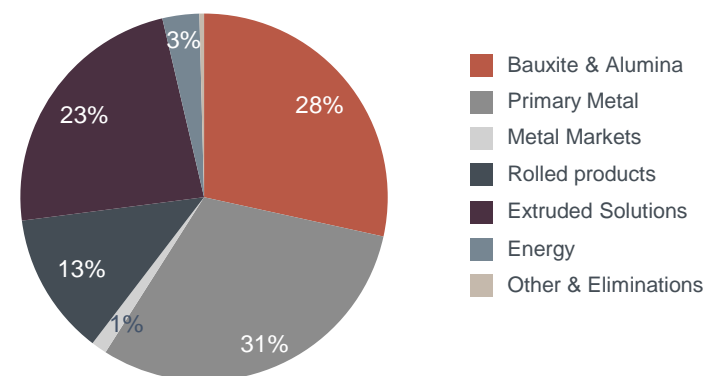
## Depreciation, amortization and impairment

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Bauxite & Alumina	577	586	644	679	630	573	509	384	605	589	590	2 486	2 095
Primary Metal	492	505	504	526	546	575	583	548	619	605	616	2 026	2 253
Metal Markets	23	24	24	24	24	25	25	26	29	29	33	95	101
Rolled Products	201	212	217	230	223	227	231	246	247	251	264	860	927
Extruded Solutions				444	421	425	434	443	506	535	639	444	1 723
Energy	53	54	56	60	58	59	61	63	62	62	62	223	239
Other and Eliminations	6	7	7	7	7	7	7	10	30	34	32	28	30
<b>Total</b>	<b>1 352</b>	<b>1 389</b>	<b>1 450</b>	<b>1 970</b>	<b>1 909</b>	<b>1 891</b>	<b>1 851</b>	<b>1 719</b>	<b>2 098</b>	<b>2 105</b>	<b>2 236</b>	<b>6 162</b>	<b>7 369</b>

## Indicative depreciation currency exposure by business area

Percent	USD	EUR	BRL	NOK & Other
Bauxite & Alumina			100%	
Primary Metal	20%		20%	60%
Metal Markets	30%	50%		20%
Rolled Products		90%		10%
Extruded Solutions	30%	40%		30%
Energy				100%
Other & Eliminations		10%		90%

## Depreciation by business area 2018, 7.4 BNOK





# Income statements



NOK million	Q3 2019	Q3 2018	Q2 2019	First nine months 2019	First nine months 2018	Year 2018
Revenue	37 517	37 766	39 176	114 276	120 991	159 377
Share of the profit (loss) in equity accounted investments	123	229	47	173	735	765
Other income, net	268	169	139	590	508	772
<b>Total revenue and income</b>	<b>37 908</b>	<b>40 163</b>	<b>39 362</b>	<b>115 040</b>	<b>122 233</b>	<b>160 913</b>
Raw material and energy expense	24 090	25 667	25 920	75 146	77 359	102 523
Employee benefit expense	6 728	5 650	6 192	18 943	17 250	23 176
Depreciation, amortization and impairment	2 236	1 851	2 105	6 440	5 650	7 369
Other expenses	4 632	4 939	4 488	13 613	13 631	19 324
<b>Earnings before financial items and tax (EBIT)</b>	<b>222</b>	<b>2 057</b>	<b>656</b>	<b>898</b>	<b>8 344</b>	<b>8 522</b>
Financial income	72	64	90	225	211	255
Financial expense	(1 700)	(486)	(754)	(2 512)	(1 549)	(2 315)
Income (loss) before tax	(1 407)	1 634	(8)	(1 389)	7 005	6 462
Income taxes	16	(710)	(183)	(316)	(1 931)	(2 139)
<b>Net income (loss)</b>	<b>(1 390)</b>	<b>925</b>	<b>(190)</b>	<b>(1 705)</b>	<b>5 074</b>	<b>4 323</b>
Net income (loss) attributable to non-controlling interests	(131)	174	(105)	(370)	124	67
Net income (loss) attributable to Hydro shareholders	(1 259)	751	(85)	(1 335)	4 949	4 256
<b>Earnings per share attributable to Hydro shareholders</b>	<b>(0.62)</b>	<b>0.37</b>	<b>(0.04)</b>	<b>(0.65)</b>	<b>2.42</b>	<b>2.08</b>

NOK million	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Net income (loss)	1 838	1 562	2 184	3 600	2 076	2 073	925	(750)	(124)	(190)	(1 390)	9 184	4 323
<b>Underlying net income (loss)</b>	<b>1 580</b>	<b>2 214</b>	<b>1 785</b>	<b>2 816</b>	<b>2 201</b>	<b>2 096</b>	<b>1 696</b>	<b>(175)</b>	<b>124</b>	<b>281</b>	<b>606</b>	<b>8 396</b>	<b>5 819</b>
Earnings per share	0.86	0.73	1.00	1.71	1.02	1.03	0.37	(0.34)	0	(0.04)	(0.62)	4.30	2.08
<b>Underlying earnings per share</b>	<b>0.75</b>	<b>1.04</b>	<b>0.82</b>	<b>1.33</b>	<b>1.06</b>	<b>1.02</b>	<b>0.74</b>	<b>(0.06)</b>	<b>0.13</b>	<b>0.19</b>	<b>0.33</b>	<b>3.95</b>	<b>2.75</b>

# Balance sheets



NOK million	Sep 30, 2019	Jun 30, 2019	Mar 31, 2019	Dec 31 2018 <sup>1)</sup>	Sep 30 2018	Jun 30 2018	Mar 31 2018
Cash and cash equivalents	10 581	10 590	6 099	5 995	6 846	5 682	9 371
Short-term investments	929	1 090	1 274	975	1 176	1 136	1 031
Accounts receivable	23 007	23 186	23 542	20 744	21 727	23 442	22 785
Inventories	21 679	22 718	25 004	26 483	23 916	22 337	20 626
Other current assets	700	471	349	801	738	978	818
Property, plant and equipment	74 025	73 193	72 882	74 369	66 251	66 683	69 945
Intangible assets	11 695	11 485	11 133	11 443	10 695	11 660	12 133
Investments accounted for using the equity method	11 809	10 936	11 349	11 570	11 094	11 140	10 551
Prepaid pension	5 721	5 986	5 854	5 162	6 857	6 322	5 933
Other non-current assets	6 877	7 322	7 157	7 385	5 962	5 780	5 588
<b>Total assets</b>	<b>167 025</b>	<b>166 978</b>	<b>164 644</b>	<b>164 928</b>	<b>155 261</b>	<b>155 159</b>	<b>158 781</b>
Bank-loans and other interest-bearing short-term debt	6 074	8 177	8 913	9 373	6 607	4 969	5 269
Trade and other payables	19 716	21 014	22 146	20 381	19 906	21 351	20 621
Other current liabilities	4 095	3 688	4 674	6 062	5 897	4 976	4 852
Long-term debt	19 985	18 620	10 559	9 342	7 886	9 377	8 746
Provisions	6 283	5 577	5 673	5 588	5 358	5 532	5 652
Pension liabilities	17 879	16 646	15 981	15 648	14 416	14 665	14 911
Deferred tax liabilities	2 911	3 123	3 052	3 031	3 952	3 456	3 522
Other non-current liabilities	5 435	4 536	4 252	4 746	3 756	3 673	4 084
Equity attributable to Hydro shareholders	80 275	81 143	84 692	85 820	83 012	82 676	86 233
Non-controlling interests	4 371	4 452	4 703	4 936	4 472	4 486	4 891
<b>Total liabilities and equity</b>	<b>167 025</b>	<b>166 978</b>	<b>164 644</b>	<b>164 928</b>	<b>155 261</b>	<b>155 159</b>	<b>158 781</b>

1) Restated

# Operational data



Bauxite & Alumina	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Alumina production (kmt)	1 523	1 576	1 605	1 693	1 277	829	821	786	805	932	1 320	6 397	3 712
Sourced alumina (kmt)	600	645	667	610	900	985	907	1 163	711	704	660	2 522	3 954
Total alumina sales (kmt)	2 129	2 196	2 251	2 344	2 071	1 842	1 711	1 983	1 423	1 668	2 124	8 920	7 607
Realized alumina price (USD) <sup>1)</sup>	309	295	297	398	371	430	460	463	373	365	310	326	429
Implied alumina cost (USD) <sup>2)</sup>	235	228	237	265	287	367	376	409	311	296	253	242	358
Bauxite production (kmt) <sup>3)</sup>	2 400	2 943	3 043	3 049	2 326	1 348	1 286	1 254	1 361	1 624	2 152	11 435	6 214
Sourced bauxite (kmt) <sup>4)</sup>	1 675	1 809	2 013	2 103	1 317	1 250	905	1 730	1 029	1 315	1 563	7 601	5 202
Underlying EBITDA margin <sup>11)</sup>	22.6%	21.3%	18.8%	31.7%	21.7%	13.6%	17.7%	10.2%	15.6%	17.5%	17.2%	24.3%	15.3%

Primary Metal <sup>5)</sup>	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	Q1 2019	Q2 2019	Q3 2019	Year 2017	Year 2018
Realized aluminium price LME, USD/mt	1 757	1 902	1 921	2 092	2 140	2 183	2 194	2 041	1 912	1 858	1 784	1 915	2 140
Realized aluminium price LME, NOK/mt <sup>7)</sup>	14 798	16 265	15 496	17 066	16 929	17 292	17 905	17 038	16 291	15 959	15 732	15 888	17 282
Realized premium above LME, USD/mt <sup>6)</sup>	266	273	261	259	295	364	367	362	344	326	305	265	346
Realized premium above LME, NOK/mt <sup>6)7)</sup>	2 236	2 330	2 106	2 116	2 335	2 881	2 999	3 025	2 935	2 802	2 688	2 197	2 791
Realized NOK/USD exchange rate <sup>7)</sup>	8.42	8.55	8.07	8.16	7.91	7.92	8.16	8.35	8.52	8.59	8.82	8.30	8.08
Implied primary cost (USD) <sup>8)</sup>	1 350	1 375	1 425	1 575	1 725	1 775	1 750	2 000	1 850	1 775	1 600	1 425	1 825
Implied all-in primary cost (USD) <sup>9)</sup>	1 675	1 700	1 725	1 850	2 075	2 175	2 150	2 350	2 200	2 100	1 900	1 725	2 175
Primary aluminium production, kmt	516	523	527	528	514	492	497	490	485	486	522	2 094	1 993
Casthouse production, kmt	521	551	548	550	531	523	507	496	473	477	509	2 169	2 058
Total sales, kmt <sup>10)</sup>	577	579	568	554	578	549	516	503	534	527	537	2 278	2 145
Underlying EBITDA margin <sup>11)</sup>	16.1%	20.8%	20.0%	20.4%	13.3%	13.0%	14.3%	(1.9)%	(2.0)%	(0.3)%	6.3%	19.4%	9.9%

1) Weighted average of own production and third party contracts, excluding hedge results. The majority of the alumina is sold linked to either the LME prices or alumina index with a one month delay. Sourced alumina volumes have been re-calculated, with Q1 2018 being adjusted accordingly.

2) Implied alumina cost (based on EBITDA and sales volume) replaces previous apparent alumina cash cost

3) Paragominas production, on wet basis

4) 40 percent MRN offtake from Vale and 5 percent Hydro share on wet basis

5) Operating and financial information includes Hydro's proportionate share of production and sales volumes in equity accounted investments. Realized prices, premiums and exchange rates exclude equity accounted investments

6) Average realized premium above LME for casthouse sales from Primary Metal.

7) Including strategic hedges /hedge accounting applied

8) Realized LME price minus Underlying EBITDA margin (incl. Qatalum) per mt primary aluminium produced. Includes net earnings from primary casthouses

9) Realized all-in price minus Underlying EBITDA margin (incl. Qatalum) per mt primary aluminium sold. Includes net earnings from primary casthouses

10) Total sales replaces previous casthouse sales due to change of definition

11) Underlying EBITDA divided by total revenues

# Operational data



<b>Metal Markets</b>	<b>Q1 2017</b>	<b>Q2 2017</b>	<b>Q3 2017</b>	<b>Q4 2017</b>	<b>Q1 2018</b>	<b>Q2 2018</b>	<b>Q3 2018</b>	<b>Q4 2018</b>	<b>Q1 2019</b>	<b>Q2 2019</b>	<b>Q3 2019</b>	<b>Year 2017</b>	<b>Year 2018</b>
Remelt production (1 000 mt)	143	152	136	137	150	153	126	135	131	139	125	568	563
Third-party Metal Products sales (1 000 mt)	79	80	74	86	70	77	83	73	70	83	82	319	304
Metal Products sales excl. ingot trading (1 000 mt) <sup>1)</sup>	735	759	707	720	745	746	685	682	683	707	662	2 921	2 859
Hereof external sales excl. ingot trading (1 000 mt)	672	675	639	589	580	563	543	532	539	556	517	2 575	2 217
External revenue (NOK million)	11 094	12 080	10 675	10 414	10 901	10 905	10 575	10 121	10 139	10 577	9 742	44 264	42 502
<b>Rolled Products</b>	<b>Q1 2017</b>	<b>Q2 2017</b>	<b>Q3 2017</b>	<b>Q4 2017</b>	<b>Q1 2018</b>	<b>Q2 2018</b>	<b>Q3 2018</b>	<b>Q4 2018</b>	<b>Q1 2019</b>	<b>Q2 2019</b>	<b>Q3 2019</b>	<b>Year 2017</b>	<b>Year 2018</b>
Rolled Products external shipments (1 000 mt)	241	239	236	224	245	251	235	220	246	242	245	940	951
Rolled Products – Underlying EBIT per mt, NOK	442	351	400	424	949	844	349	(512)	560	309	678	404	435
Underlying EBITDA margin <sup>2)</sup>	4.9%	4.5%	4.8%	5.0%	6.7%	6.1%	4.6%	2.1%	5.6%	4.9%	6.4%	4.8 %	5.0%
<b>Extruded Solutions<sup>3)</sup></b>	<b>Q1 2017</b>	<b>Q2 2017</b>	<b>Q3 2017</b>	<b>Q4 2017</b>	<b>Q1 2018</b>	<b>Q2 2018</b>	<b>Q3 2018</b>	<b>Q4 2018</b>	<b>Q1 2019</b>	<b>Q2 2019</b>	<b>Q3 2019</b>	<b>Year 2017</b>	<b>Year 2018</b>
Extruded Solutions external shipments (1 000 mt)	355	359	339	318	362	373	343	318	333	348	316	1 372	1 396
Extruded Solutions – Pro-forma underlying EBIT per mt, NOK	1 973	2 328	1 505	893	2 028	2 566	1 449	635	1 781	2 219	1 769	1 699	1 712
Underlying EBITDA margin <sup>2)</sup>	7.7%	8.2%	6.5%	5.2%	7.3%	8.1%	5.8%	4.2%	6.9%	7.4%	7.2%	6.9%	6.4%
<b>Energy</b>	<b>Q1 2017</b>	<b>Q2 2017</b>	<b>Q3 2017</b>	<b>Q4 2017</b>	<b>Q1 2018</b>	<b>Q2 2018</b>	<b>Q3 2018</b>	<b>Q4 2018</b>	<b>Q1 2019</b>	<b>Q2 2019</b>	<b>Q3 2019</b>	<b>Year 2017</b>	<b>Year 2018</b>
Power production, GWh	2 869	2 369	2 509	3 089	2 433	2 550	2 888	2 822	2 553	1 993	2 273	10 835	10 693
Net spot sales, GWh	1 409	996	1 168	1 633	763	961	1 315	1 166	770	289	582	5 206	4 204
Nordic spot electricity price, NOK/MWh	280	257	266	294	372	373	484	460	457	346	342	274	423
Southern Norway spot electricity price (NO2), NOK/MWh	278	252	258	287	361	369	475	455	468	360	328	269	415
Underlying EBITDA margin <sup>2)</sup>	24.4%	19.3%	23.1%	23.9 %	19.2%	22.2%	28.8%	24.9%	25.8%	13.4%	16.0%	22.8%	24.2%

1) Includes external and internal sales from primary casthouse operations, remelters and third party Metal sources

2) Underlying EBITDA divided by total revenues

3) FY 2017 and historical operational data based on pro forma figures



# Extruded Solutions, information by business area



Historical Sapa information (100% basis) Q1 2017 – Q3 2017  
Extruded Solutions, fully consolidated in Hydro since Q4 2017 <sup>1)</sup>

Precision Tubing	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Volume (kmt)	36	38	36	35	37	41	41	38	157	34	36	34
Operating revenues (NOKm)	1 651	1 734	1 601	1 645	1 700	1 910	1 873	1 722	7 205	1 623	1 788	1 540
Underlying EBITDA (NOKm)	180	193	157	138	168	120	121	98	507	86	146	140
Underlying EBIT (NOKm)	123	136	97	66	103	55	50	30	237	18	87	74

Building Systems	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Volume (kmt)	20	21	19	19	20	21	18	19	78	18	22	19
Operating revenues (NOKm)	1 830	2 044	1 765	1 960	2 057	2 124	1 919	2 045	8 145	1 973	2 328	2 104
Underlying EBITDA (NOKm)	155	219	118	137	167	198	130	155	650	104	233	189
Underlying EBIT (NOKm)	119	183	85	85	116	146	70	99	430	22	143	79

Other and eliminations	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Underlying EBITDA (NOKm)	(63)	(43)	(41)	(35)	(45)	(46)	(21)	(118)	(230)	(56)	(96)	24
Underlying EBIT (NOKm)	(69)	(49)	(42)	(45)	(55)	(58)	(35)	(130)	(278)	(58)	(99)	21

Extrusion Europe	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Volume (kmt)	154	155	142	134	159	160	138	129	586	139	142	120
Operating revenues (NOKm)	5 553	5 999	5 460	5 541	6 600	6 664	5 867	5 719	24 850	6 328	6 461	5 579
Underlying EBITDA (NOKm)	390	416	290	240	417	504	263	201	1 385	346	348	215
Underlying EBIT (NOKm)	274	292	164	59	246	333	98	27	705	141	144	6

Extrusion North America	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018	2018	Q1 2019	Q2 2019	Q3 2019
Volume (kmt)	150	151	148	134	152	157	152	137	598	146	148	142
Operating revenues (NOKm)	5 514	5 753	5 369	5 211	5 882	6 519	6 541	6 091	25 033	6 306	7 053	6 267
Underlying EBITDA (NOKm)	437	466	390	248	448	606	439	310	1 802	619	648	532
Underlying EBIT (NOKm)	330	353	284	119	325	481	314	176	1 295	469	498	378

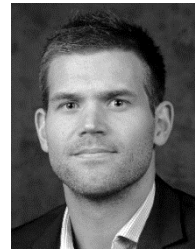
<sup>1)</sup> Includes certain effects of the acquisition such as increased depreciation and amortization following fair value adjustments related to long-lived assets. Estimate increased depreciation of around MNOK 300 per annum for Extruded Solutions vs "old Sapa".

Next events

# Fourth quarter results February 7, 2020

For more information see  
[www.hydro.com/ir](http://www.hydro.com/ir)

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