

9 May 2023

# **Initiation of coverage**

# **Borouge**

# Positioned for long-term profitability



Last close (AED)	2.70
Fair value (AED)	3.25
Upside	+20%
Stock rating	OVER-WEIGHT

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#### Investment case

### Initiating our coverage with OVER-WEIGHT

Borouge is a leader in polyolefins (POs) which was established in 1998 as a strategic alliance between ADNOC and Borealis. It produces and sells polyethylene (PE) and polypropylene (PP). Its differentiated products and technology allow it to command significant pricing and margin premia.

Borouge was listed through an IPO in June 2022 and is integral to the ADNOC expansion story. We initiate coverage on the stock with an overweight recommendation. We use three distinct valuation methods to arrive at a fair value of AED 3.25 per share, implying potential upside of 20% from the last closing price.

## A world of polyolefins and a leader thereof

Two-thirds of the world demand for plastic resins is satisfied by polyolefins. POs allow a wide range of end-use applications, including solid forms such as sheets and pipelines, bottles, containers, and flexible shapes such as films, purses, and bubble wrap.

Petrochemical products, including monomers such as ethylene and propylene, are typically standardized in quality and pricing. On the other hand, the polyolefins produced by Borouge have more specific characteristics across the value chain, from production to packaging.

This differentiation allows distinct pricing, to account for differences in quality. Borouge is in a sweet spot where the quality of its process and resulting products allow it to command a significant structural premium over market prices.

# Multiple avenues for growth

The market for POs is highly correlated with economic growth and consumer behavior. While the Covid-19 pandemic was an exception, demand generally fluctuates in tandem with the global economy.

Urbanization, and the expansion of global infrastructure, increases demand for plastics. Polymers, particularly PP, are also widely used in the automotive and appliance industries, which are cornerstone sectors across South and South-East Asia.

China is expected to account for nearly half the new global demand for PE and PP until 2026. This should be driven by global economic growth and the need for low-cost resins to fuel a surging export market, in the era of the "all made in China".

# Superior products for unmatched margins

Borstar is a patented, multi-modal technology developed by Borealis. It is central to the manufacturing process of Borouge and allows the mass production of distinctive, high quality, difficult-to-replicate products.

Borouge estimates that most of its products are differentiated from the competition, which allows for higher prices than industry standard. It anticipates an over-the-cycle premium of \$200/MT for PE and \$140/MT for PP. Compared to current benchmark prices, these premia raise the average selling price of Borouge by 20% and 15% for PE and PP, respectively.

With innovative products, high selling prices, and low input costs, Borouge can maintain stable margins twice higher than the average global plastics manufacturer. A solid balance sheet and minimal gearing also allow the manufacturer to afford ambitious expansion plans and a generous dividend policy. All in all, Borouge appears to us as a must-own asset at the current market price, for any investor focused on UAE markets.

#### Stock rating

Current rating	OVER-WEIGHT
Fair value	3.25
Former rating	N/A
Previous fair value	N/A
Target upside	+20%
Listing location	Abu Dhabi
Sector	Chemicals
Local exchange	BOROUGE
Bloomberg	BOROUGE UH
Reuters	BOROUGE.AD

Source: Al Ramz Capital, Refinitiv

#### Stock statistics

Last close, AED	2.70
Market cap (AED m)	81,156
Avg. daily vol. 3m (m)	8.7
Shares out. (m)	30,058
Free float	10%
YTD change*	+7%
52w high (AED)	3.27
52w low (AED)	2.45

Source: Al Ramz Capital, Refinitiv

#### Stock price since listing



Source: Al Ramz Capital, Refinitiv

#### **Ratios and margins**

Indicator	Metric
EV/Sales	4.1
EV/EBITDA	10.6
P/E	18.8
Dividend yield	5.9%
EBITDA margin	39.1%
Net margin	19.7%
Return on equity	24.5%
Net debt/EBITDA	1.1

Source: Al Ramz Capital, Refinitiv

Note: Market prices are as at the close of May 8, 2023. Ratios and margins are 2023E.



# A world of polyolefins

Borouge produces and sells key polyolefins (POs) such as polyethylene (PE) and polypropylene (PP). This section provides a brief overview of the PO industry, market dynamics, and end uses.

POs account for two-thirds of the global demand for plastic resin. Their versatility is the key reason for their widespread use. They allow a vast array of end-use applications, including solid forms such as sheets and pipes, bottles or other containers, as well as flexible items such as films, pouches, and bubble wrap.

Polyvinyl Chloride 18%

Polypropylene 25%

Chart 1: Global plastic resin demand in 2019

Source: Wood Mackenzie

# Polyolefins for differentiation

Most of the petrochemical value chain consists of commoditized products. The fundamental derivatives of crude oil, including diesel, kerosene, LPG, and monomers such as ethylene and propylene, are essentially the same across producers.

The polymerization process, which produces the distinct forms of PE and PP, induces differentiation. This is evident in the many varieties of transformed plastics available in the market, and in their wide range of applications across business sectors.

Manufacturing of POs therefore enables businesses to differentiate their products, create more value, and expand margins further. The manufacturing technique used, the kind or grade of polymer produced, and the degree of supply chain integration, all offer manufacturers differentiation possibilities at various levels.

#### More efficiency than ethane-based cracking

Crackers are systems that use ethane, propane, butane, mixed natural gas liquids, naphtha, and other feedstocks to produce ethylene. Cracking input is dependent on supply chain integration and feedstock availability.

Borouge produces PE using ethane sourced from ADNOC's gas processing units. Its manufacturing facility is completely integrated with the ADNOC petrochemical industrial complex. North American manufacturers use shale



gas for ethylene and PE production. In China, the coal-to-olefins (CTO) and methanol-to-olefins (MTO) processes are common given that the country does not have cost-optimal access to crude-based byproducts.

Ethylene cracking systems also create significant quantities of byproducts, such as propylene and butadiene, in addition to products such as hydrogen and methane. Liquid crackers produce a larger number of byproducts than gas crackers. Borouge produces ethylene using ethane cracking, which produces the lowest byproducts. An ethane cracker is 78% effective, which means every 100 tons of ethane makes 78 tons of ethylene and 22 tons of co-product.

The integrated manufacturing facility of Borouge and its low byproduct volumes enable it to concentrate on its primary products: PE and PP. This concentration results in a differentiated and superior product offering, allowing the business to charge a higher price than the industry standard.

100% 78% 80% 60% 42% 40% 40% 31% 21% 20% 17% 10% 0% Naphtha Methanol- Coal-to-Ethane Propane Butane Gas oil to-olefins olefins

Chart 2: Ethylene cracking efficiency

Source: Lyondellbasell handbook

### Polyethylene: The most widely used plastic

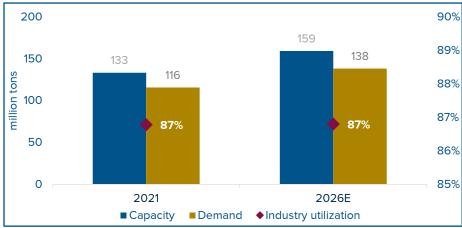
PE is a versatile and relatively inexpensive polymer. It accounts for 38% of the 309m ton thermoplastic resin market. Due to its diverse features, PE is used in several applications and industries, including consumer products, infrastructure, construction, automotive, and electronics.

Low cost, high versatility, and resistance to the elements constitute the principal advantages of PE over other resins. In terms of end uses, polymers generally compete with non-polymer materials such as aluminum, steel, wood, cardboard, and glass.

#### Visible market expansion

According to IHS Markit, an S&P research company, the global installed capacity for PE in 2021 was 133m metric tons, with North America and the Middle East accounting for much of this capacity. In 2021, PE demand came in at 115m metric tons, resulting in an industry utilization rate of 87%. Utilization levels are forecast to remain unchanged between 2021 and 2026, with both demand and supply anticipated to expand at a CAGR of 3.7%.

Chart 3: Global supply and demand of polyethylene



Source: Company data, IHS Markit

### A game changer for the packaging industry

PE offers great versatility of use while being quite durable as a material and providing unique tear-resistance capabilities. This polymer also offers a flexible, soft, transparent, and glossy form while allowing high resistance to moisture.

With such extensive and differentiating properties, PE is widely used in the packaging of finished and semi-finished goods. It is uniquely appropriate to package chemicals and has also become a favorite for industrial companies who use it to manufacture storage bags for big and heavy objects, such as industrial machining components.

Closer to the consumer, PE is used extensively to package food. We find it in the form of squeeze bottles, bread and frozen food containers, or flexible lids.

Table 1: Industrial and consumer uses of polyethylene

Solution	Use
Packaging film and sheet	Food: Baked goods, dairy products, frozen products, meat, poultry, candy Non-food: Industrial liners, heavy duty sacks, grocery sacks, merchandise bags, garment bags
Non-packaging film and sheet	Industrial sheeting, roll stock, agricultural film, disposable diaper backing
Pipe and profile	Gas pipes, potable water pipes, electrical conduits
Extrusion coating	Coating for paper, woven cloth, and foil
Injection molding	Toys, housewares, crates, lids, caps
Blow molding	Liquid food bottles, household chemical containers, industrial drums, fuel tanks, motor oil bottles
Rotomolding	Chemical tanks, trash containers, backyard play equipment, kayaks, outdoor signs, ducts, material handling equipment

Source: Company data



### Polypropylene: The rigid polymer

PP is the second-largest thermoplastic resin in the world in terms of volume. It is stiffer and less flexible than PE and can withstand higher temperatures. It is used in carpets, ropes, face masks, sanitary wipes, automobile components, food containers, toys, water pipes, foam building materials, snack packaging films, and high-clarity films for food and other purposes.

PP can also include additives for commercial use. Such additions allow it to compete with expensive engineering resins. PP can also replace paper, metal, and wood in many applications thanks to its cost advantage, performance, and reduced carbon footprint over the course of its life cycle.

#### Excess capacity in the pipeline

According to IHS Markit, the global installed capacity for PP in 2021 was 96m metric tons, against demand of 85m metric tons, putting industry utilization at 89%. Going forward, industry utilization is expected to decrease due to a significant ramp up in capacity as China looks to enhance self-sufficiency. Overall demand is expected to increase by 4.4% and capacity by 5.0%, resulting in excess capacity.

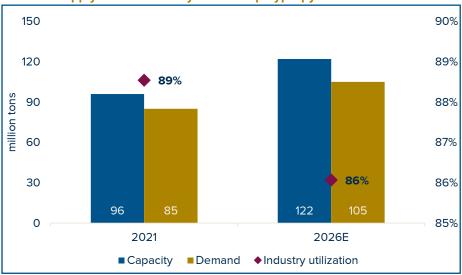


Chart 4: Supply and demand dynamics of polypropylene

Source: IHS Markit, Borouge prospectus

As per IHS Markit, Average annual growth into 2026E is anticipated to be highest in the Indian subcontinent (+8.9%), followed by Southeast Asia (+5.6%), and mainland China (+5.0%).

More importantly, as we look at actual demand volume instead of growth percentages, we find that about half of the approximately 20m metric-ton increase in demand should originate from China (10m metric tons).

The Indian subcontinent is likely to rank second in demand expansion, with 3.3m metric tons, followed by Southeast Asia with 2m metric tons. These three areas combined should account for around 78% of the expected increase in PP consumption between 2021 and 2026E.

#### Multi-sector use

PP is relevant due to its popularity in the textile and packaging industries. The latter mostly uses it to wrap general consumer-products with plastic film.

PP is also used to make agricultural sacks and twine. Automobiles also require increasing quantities of polypropylene. Countries like South Korea, Taiwan, China, and India have been stepping up their car manufacturing efforts, which makes them heavy users of PP for injection molding.

Table 2: Uses of polypropylene

Solution	Use
Injection molding	Automotive and appliance industries
Fiber	Agricultural bags, sacks, tarpaulins, other exterior applications
Film	Packaging

Source: Company data

# Two main growth drivers

The main drivers of polyolefin demand growth are economic expansion and urbanization. Investment in infrastructure, driven by construction activity, is one of the most crucial factors for economic growth and urbanization. In construction, POs are used in a multitude of applications, from flooring to preserving the cleanliness and dryness of tools and equipment.

Key construction solutions offered by POs are protective sheeting, vapor barrier, weather proofing, waste management, acoustics, and insulation. More than 40% of the products and services offered by Borouge are used in infrastructure applications. These include pipes and fittings, water solutions, energy solutions, wires, and cables.

Polymers, notably PP, have extensive use in the automotive and appliance industries. These industries are the core sectors for a few countries that consume PP extensively. Economic expansion in these countries should also drive these sectors, resulting in increased use of POs. Polymers also find extensive use in the packaging of semi-finished and finished goods.

### Macro growth at the core, but not exclusively

Demand for POs is generally highly correlated with macroeconomic growth and consumer behavior. During the Global Financial Crisis, PO demand plummeted in line with the contraction of global economies.

However, this is not always the case since the properties of resins can sometimes make them strategic in nature. For example, while the pandemic hit the growth engine of the world, the health sector made up for the slack when the demand for specialized products skyrocketed.

Gloves, masks, and other personal protective and medical equipment mostly use plastic resins for their manufacturing. As the demand for such equipment surged during the covid crisis, so did the demand for the underlying resin.

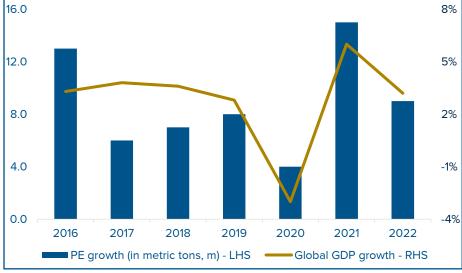
Changes in consumer spending patterns also have an impact on the enduse applications of plastics. For instance, mobility restrictions implemented during the lockdown in 2020 led to a boom in e-commerce and home deliveries and resulted in a surging demand for packaging materials and non-durable plastics.

Consequently, while world economies crumbled and as the world came to a sudden halt, demand remained strong for polyolefins. The numbers are quite telling. World GDP shrank by 3.7% in 2020 as the demand for PE increased by 5.7% - A staggering 9.4% spread in the camp of POs.

In conclusion, while the central scenario is for economic growth to dictate the trend for polyolefin consumption, such is not always the case. In the recent past, the industry has seemingly benefited from a positive double-whammy where the baseline is positive, and any bad news for the world is even more positive for the industry — The best of both worlds.

16.0 12.0

Chart 5: Incremental polyolefin demand against GDP growth



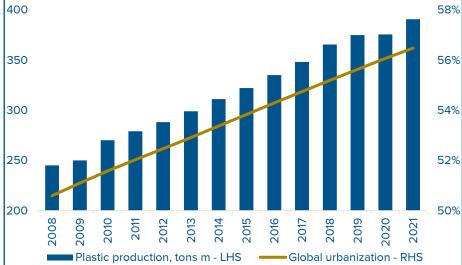
Source: Statista, IMF, Wood Mackenzie

#### Urbanization as the demand kicker

**Chart 6: Plastic production and urbanization** 

With economic growth as the baseline, urbanization, defined as the proportion of people living in towns and cities, becomes the kicker. Looking at data since 2008, we find that demand for plastic has increased in tandem with urbanization.

400 350



Source: Statista

From construction to garbage disposal or food packaging, polyolefins offer extensive solutions for urban environments. PO solutions are innovative and sustainable. Their physical and chemical properties are superior to those of other materials making them durable, long-lasting, lightweight, weatherresistant, recyclable, and sometimes fireproof.

Urbanization, along with global population growth, an increase in healthcare requirements due to an ageing population, and other socioeconomic factors, should help sustain polyolefin demand in the foreseeable future.

# Asia in pole position

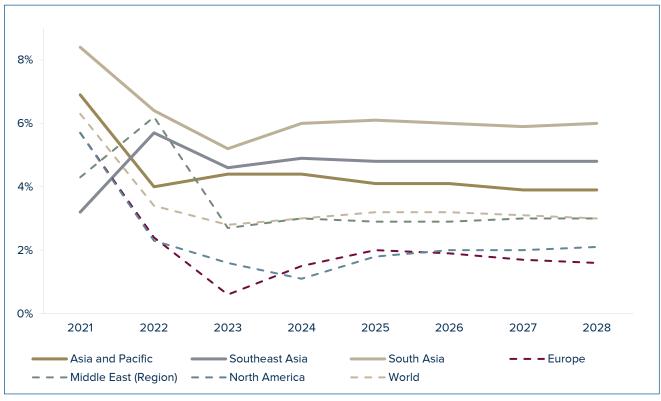
With the steady development and population growth of India, China, and other Asian countries over the past two decades, the share of Asia in global



GDP now exceeds 45%. Asia has now become the largest global GDP contributor, ahead of North America and Europe which account for a combined 36% of global GDP.

Asia has some of the youngest populations on the globe and a structural lag in urbanization versus Western counterparts. It should therefore continue to drive global economic growth over the next decade. The proportion of Asian to global GDP should exceed 50% by 2030 (source: World Economics).

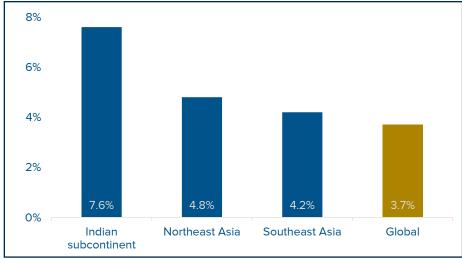
**Chart 7: GDP growth comparisons** 



Source: IMF

With young populations, growing cities, and increasingly export-driven manufacturing economies, Southeast Asia, Northeast Asia, and the Indian subcontinent accounted for c. 60% of PE demand in 2021. IHS predicts that the increase in demand for PE in these regions should be substantially greater than the global average.

Chart 8: Global PE demand growth (2022-2026E)

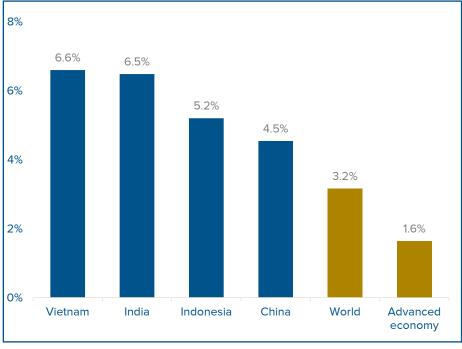


Source: Borouge prospectus, IHS Markit



China, India, Vietnam, and Indonesia alone should account for nearly half the global PO demand going forward, and constitute the core of the plastic market over the medium term. These core markets are likely to grow faster than the rest of the world.

Chart 9: Average projected GDP growth 2023E–2027E



Source: IMF

#### China: center of consumption and production

China represents c. 40% of global PO consumption and is the largest importer of plastics. It accounted for an estimated 43% of global imports of PP and 69% of PE in 2020.

Most incremental world demand for PE (40%) and PP (50%) should come from China until at least 2026E, as estimated by IHS Markit. Chinese demand is driven by economic development and a need for low-cost exports of appliances and other finished items. The country is also investing substantial resources to meet its own needs.

Chinese incremental PE demand is forecast to reach 9m tons by 2026E, resulting in total Chinese PE demand of 52m tons annually. With total expected local new capacity of 13m tons, and existing capacity of 24m tons, Chinese capacity should hardly be sufficient to cover total local demand. In fact, despite the capacity expansion, China should only be able to satisfy 70% of its own internal demand in 26E, up from 57% in 2021.

This Chinese deficit should create an opportunity for lower-cost, Ethylene-based manufacturers, located in the Middle East and North America, who expect to step up their exports to China as they take market share from higher-cost Southeast Asian producers.

On the PP side, demand is again dominated by China and the country intends to add 12.4m metric tons of capacity, equivalent to 48% of additional worldwide capacity. This additional capacity is expected to reduce its dependence on foreign suppliers, but the country is likely to remain a net importer of PP.

China should continue to be a net importer of POs in the foreseeable future despite substantial investments in local capacity expansion in line with its self-sufficiency goal. Its large market size and steady growth are attractive to PO manufacturers including Borouge, as they expect to derive a significant portion of their top-line expansion from the country.

#### Strong demand from the Indian subcontinent

As per IHS Markit, the Indian sub-continent represents 7% of the total PE market, while local demand is projected to increase by 7.6% between 2021 and 2026E, a faster growth than China but from a far lower base.

The large size, strong growth, and insufficient capacity of the Indian subcontinental market make it attractive for PE producers such as Borouge – India and surrounding countries represent a visible long-term growth opportunity for competitive producers such as Borouge.

Table 3: The large polyethylene markets of China and India

	2021	2026E	CAGR	2021	2026E
	Demar	nd in m metric	tons, m	Marke	t share
Global	116	138	+3.7%	100.0%	100.0%
China	43	52	+4.2%	37.0%	37.9%
Indian subcontinent	7	11	+7.6%	6.5%	7.8%

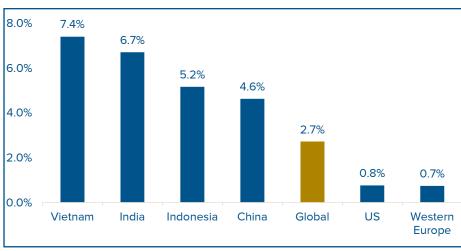
Source: Company data, IHS Markit

India is notably the fastest-growing nation in the world and has a much smaller urban population than world average. The urbanization rate climbed by 692 bps over the past ten years to 35% and is likely to migrate towards the world average of 60%, creating a sustained demand for polymers along the way.

#### Core market demand above world average

PO demand from key Asian markets is likely to exceed the global average and to remain sustained as a result of economic expansion, increased export-oriented industrial production, and greater urbanization. All-in-all, core market growth is expected to exceed Western economies by ten-fold.

Chart 10: PE consumption growth per capita, 2021-2026E



Source: IHS Markit, Borouge prospectus



Chart 11: PP consumption growth per capita, 2021–2026E

Source: IHS Markit, Borouge prospectus

### **Environmental concerns threaten growth**

Plastic resins have been facing incremental regulatory pressure and consumer awareness, given their considerable negative impact on the environment. Any adverse change in regulation concerning the use of plastics, might hinder PO manufacturers and the industry overall.

In the UAE for example, a countrywide ban on single-use plastics should begin in January 2024, and follows in the footsteps of many other regulatory changes worldwide.

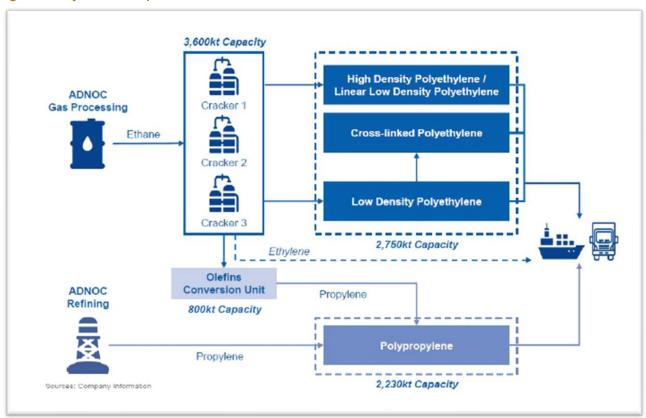
# **Product demand drives profitability**

In this section, we assess the margins of PO producers. We focus on how margins change over time and the key variables that impact them.

Refineries process crude oil to produce gasoline, kerosene, and byproducts such as butane, ethane, and propylene. These byproducts are then utilized in cracker units to produce ethylene, and in polymerization units to produce PE and PP.

Overall, the value creation process of polymerization is driven primarily by the crude oil input, even though we find that crude prices only partially impact the prices of the plastic resins in the end.

Figure 1: Polymerization process



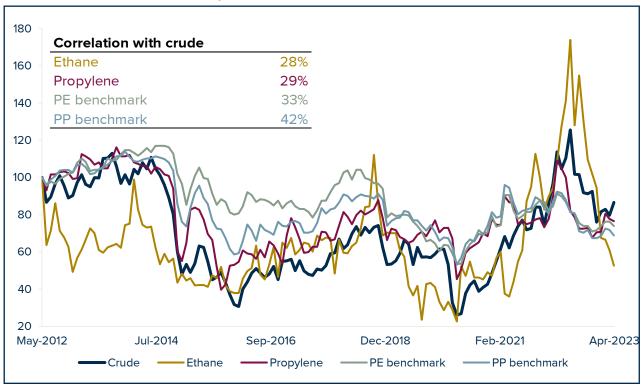
Source: Borouge prospectus

# Limited resin price-impact from crude oil price

There is widespread belief that changes in the price of crude oil feeds directly into the prices of its derivatives. Based on 12 years of data, we find that the impact of a change in crude oil price on oil derivatives is modest.

In effect, the actual measured correlation between crude and olefins varies between 28% and 42%, as per our numbers. This data suggests a non-meaningful correlation between oil and olefins. We conclude that the oil price only partially determines the price of these derivative commodities.

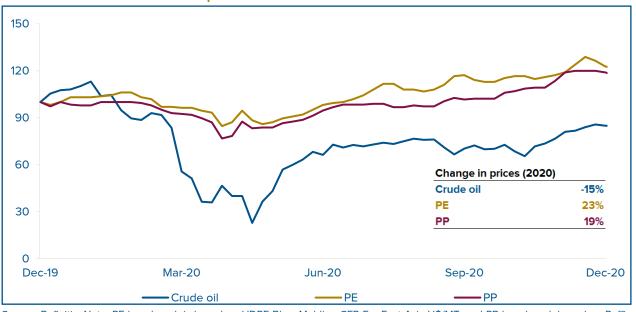
Chart 12: Rebased olefin and crude prices



Source: Refinitiv, Al Ramz Investment Research. Note: PE benchmark is based on HDPE Blow Molding CFR Far East Asia U\$/MT and PP benchmark based on Raffia CFR Far East Asia U\$/MT.

A significant part of the change in the price of derivatives is caused by other factors than the price of oil, including supply and demand equilibrium, the manufacturing process, or the overall product quality. This was noticeable during the first year of the pandemic (2020), when oil prices decreased while polymer prices rose due to their use in medical equipment and packaging.

Chart 13: Rebased crude and POs prices in 2020



Source: Refinitiv. Note: PE benchmark is based on HDPE Blow Molding CFR Far East Asia U\$/MT, and PP benchmark based on Raffia CFR Far East Asia U\$/MT.

# Resin spreads to crude are key to margins

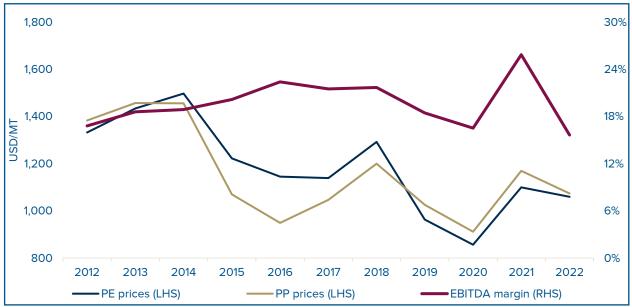
Next, we look at the relationship between commodity prices and the margins of resin producers. We find that, while there is some obvious relationship

between the operating margins of producers and the market prices of the POs, as shown in chart 14, the more meaningful correlation is between the crude spread and the margin, as per chart 15.

In arriving at this conclusion, we aggregated and mapped the EBITDA margins of 15 major resin producers against the market prices and crude spreads for PE and PP, since 2012. The producers in our sample are LG Chemicals, DOW, LyondellBasell, Nan Ya Plastics, Formosa Plastics, Rongsheng, Yunnan Energy, Westlake, Formosa Chemicals, Chandra Asri, Yanbu, PTT Global, Petronas Chemicals, and SABIC.

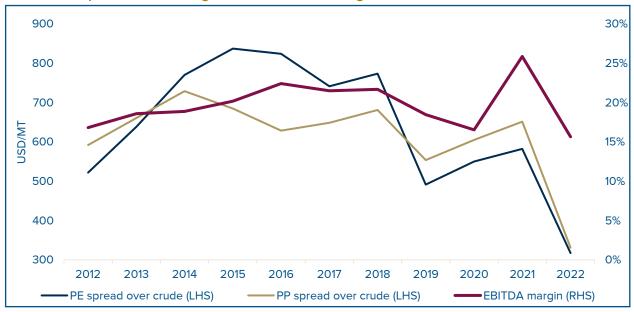
Margins can remain elevated or stable even during falling market prices, as chart 14 illustrates. However, if the spread crunches, the margins generally seem to reduce accordingly, as we see in chart 15.

Chart 14: PO prices and sector EBITDA margins



Source: Refinitiv, Al Ramz Investment Research

Chart 15: PO spread over crude against sector EBITDA margin



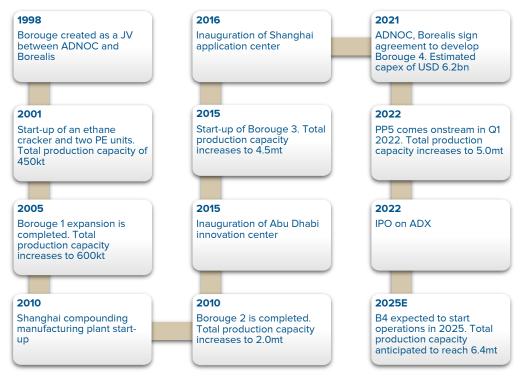
Source: Refinitiv, Al Ramz Investment Research

# A pure-play polymer producer

Borouge was founded in 1998 from a strategic alliance between ADNOC and Borealis, a leading global provider of advanced PO solutions. Borouge effectively operates two companies:

- Abu Dhabi Polymers (ADP) which is based in the capital city of the UAE and handles the primary production of polymers
- <u>PTE</u> which is a based in Singapore and represents the sales and marketing joint venture of Borouge

Figure 2: Corporate timeline of Borouge

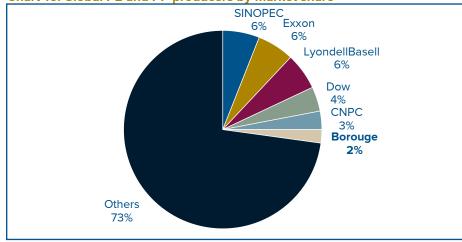


Source: Company data

# A global polymer heavyweight

Borouge is one of the largest producers of innovative and differentiated polyolefin solutions in the world. It has a total production capacity of 5m tons, equivalent to 2% of world total. Other major producers include SINOPEC, Exxon, LyondellBasell, Dow, and CNPC.





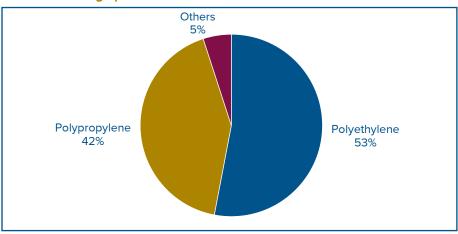
Source: Company data, Lyondellbasell handbook



#### Two main products on offer

Borouge primarily sells polyethylene, the most prevalent polymer type, and polypropylene, the second-most prevalent polymer type. These POs have uses in the agricultural, infrastructure, energy, advanced packaging, transportation, and healthcare sectors.

Chart 17: Borouge product mix



Source: Borouge Annual Report 2022

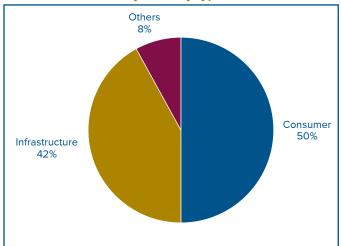
Borouge primarily serves the consumer and infrastructure sectors. It offers differentiated and premium solutions for many highly demanded end products. Consumer solutions include sustainable packaging, monomaterial solutions, and greenhouse films. Infrastructure solutions include pipes and fittings, water solutions, and energy solutions.

### Serving the most promising global markets

Northeast Asia and South Asia are home to the world's most populated and fastest-growing nations. India and China, in particular, accounted for more than 50% of worldwide PE and PP demand in 2021 and represented 40% of the revenues of Borouge in that same year. Pakistan, Vietnam, Bangladesh, and Egypt are other important markets for the UAE producer.

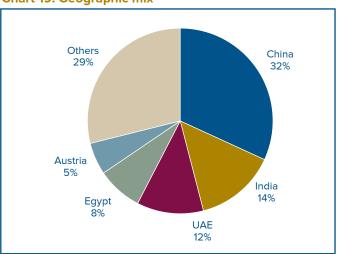
Demand from the core markets of Borouge is expected to grow much faster than the rest of the world, as discussed earlier in the industry section. All in all, we note that Borouge is positioned to effectively serve some of the biggest, fastest-growing markets in the world.

Chart 18: Client mix by industry type



Source: Borouge Annual Report 2022

Chart 19: Geographic mix



Source: Borouge Annual Report 2022



### Young and potent, quality assets

Borouge runs one of the largest single-site PO complexes in the world at Ruwais in the United Arab Emirates. The Ruwais complex comprises the original plant (Borouge 1) and its four extensions (Step II, Borouge 2, Borouge 3, and PP5).

The total production capacity of Borouge is 5.0 MT/year, with PE accounting for 2.8 MT, PP for 2.2 MT, and other products for 0.1 MT. In addition, Borouge 4 is expected to be added to the company's manufacturing assets in 2025, increasing PE capacity by 1.4 MT.

The company's production assets are modern and reliable. 90% of its capacity is less than 12 years old, and it operates year-round with little downtime, as evident from its asset reliability of 96% in 2021. Its low age and downtime lead to efficiency in the manufacturing process, resulting in lower costs and higher margins.

As a testament to this efficiency, we mention the turnaround exercise just completed by Borouge at the end of 1Q23. The production plants run uninterrupted and need to be brought offline every five years for a maintenance overhaul. This is required to cater for the longevity of the assets and was recently completed in a matter of 45 days for Borouge 2.

The production facilities of Borouge are supported by logistical hubs, warehouses, and gateways in MENA, Europe, and Asia Pacific. Marketing and sales are conducted from the Singapore headquarters, with a compounding factory in Shanghai.

**Table 4: Production facilities** 

Facility	Production capacity (KT	)
Location: Ruwais (UAE)	PE	PP
Borouge 1	620	-
Borouge 2	700	800
Borouge 3	1,510	950
PP5	-	480
Borouge 4 (expected by 2025)	1,400	-
Total (current)	2,830	2,230
Total (after Borouge 4)	4,230	2,230

Source: Company data

# Interlinked ownership

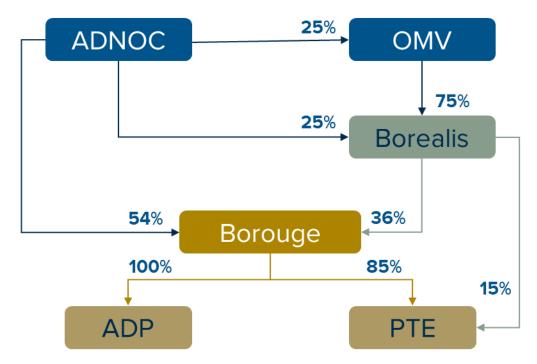
Following the IPO in 2022, ADNOC controls 54% of Borouge and Borealis owns 36%, while the remaining shares were sold to the public. 75% of Borealis is owned by OMV, a listed multinational company which engages in the production, processing, and supply of oil & gas, and the provision of chemical solutions. The remaining 25% of Borealis belongs to ADNOC.

In December 2022, ADNOC announced the acquisition of a 24.9% stake in OMV from Mubadala. Via this transaction, ADNOC boosted its shareholdings in both Borealis and Borouge. ADNOC currently controls 69.7% of Borouge, including 54% in direct ownership and the remainder through its ownership of OMV and Borealis.

The investment in OMV increases ADNOC's global presence in the rapidly expanding chemical and petrochemical industries and opens new business opportunities in markets where OMV and Borealis operate, especially in

Europe and North America. This purchase also represents another significant milestone as ADNOC accelerates the fulfillment of its downstream and industrial expansion projects and significantly extends its long-standing cooperation with Borealis.

Figure 3: Borouge ownership



Source: Company data

# Unmatched structure and positioning

The relationship of Borouge with ADNOC and Borealis gives it a substantial competitive edge. This alliance opens access to high-quality feedstock at preferential pricing and to the technology required to produce distinctive products.

Additionally, this partnership allows Borouge to benefit from preferential terms in the context of capacity expansion, which further allow it to preserve its cash flow. We discuss this in more detail in the context of Borouge 4, the expansion plant which is currently under construction.

### Lower feedstock for higher margins

Borouge has a contract with ADNOC through ADP for the exclusive provision of feedstock, which includes raw ethane, propane, butane, and propylene. The existing agreement is effective until 2057 and has a mechanism for repricing that should go into effect in late November 2027. The pricing should be further evaluated in June 2045.

**Table 5: Feedstock agreement** 

Feedstock	Ethane	Propylene	
Supplier	ADNOC Gas Processing	50% from ADNOC refining and 50% from internal sources	
Volume	No minimum off-take, no contractual cap		
Contract start date	Contracts signed in October 1998, with amendments to reflect the additional volume requirements		
Contract end date	Current agreement until 2057, includes a re-pricing mechanism due to take effect in late November 2027, and pricing mechanism due to be reviewed in June 2045		

Source: Company data

#### No volume constraint

Borouge sources ethane from ADNOC Gas Processing and propylene from ADNOC Refining. In addition, it owns an ethane cracker and olefin conversion facility. The agreement with ADNOC has no volume constraints, indicating that there is neither a minimum off-take nor a cap on contractual amounts.

#### Feedstock prices are based on polyolefin market prices

The feedstock agreement with ADNOC guarantees a steady supply of ethane and propylene at prices that are competitive over the long term. The price formula for ethane feedstock is based on PE and PP market prices with a floor and cap.

With the prices of PE and PP as they are now, the price of ethane has reached its ceiling. This indicates that any increase in selling price is unlikely to result in higher manufacturing costs, allowing the margins to expand.

In 2021, PE and PP prices were more than 20% above the cap; effectively, market prices would need to fall by more than 20% from the current levels to have an impact on the feedstock cost base.

Due to the current cap and market prices, Borouge finds itself in a feedstock band where any increase in the market prices should increase its operating margin. This would lead to further margin expansion, where the margin is already twice that of key competitors.

However, any decrease in the market price of less than 20% (e.g., 15%) should mechanically decrease the operating margin of Borouge. A drop in market prices greater than 20% (e.g., 25%) should be compensated for by lower feedstock prices, as the feedstock price diminishes below the cap to protect the margin of the UAE producer.

The company does not provide the formula for ethane cost, but management discloses that Borouge is positioned in the top quartile of the cost curve and is anticipated to maintain cost competitiveness even after the 2027 expected rebasing. The price of propylene is based on local netback prices, which are about 25% less than the market benchmark.

The ethane-based operations of Borouge give it a further competitive advantage as they reduce the byproducts, resulting in more efficient operations. Altogether, this combination of process and procurement leads to strong and steady margins for Borouge.

### Differentiated and innovative products

According to Borouge, 80% of its PO products are differentiated. The company defines differentiated goods as those with excellent technical performance, high barriers to entry, a high premium above the applicable benchmark, and high growth opportunities.

#### **Multi-patented technology**

Borstar is a multi-modal patented technology developed by Borealis and lies at the heart of the innovations and differentiation of Borouge. This method makes it possible for the company to manufacture a wide range of improved PE and PP products for the most demanding uses. Additionally, it enhances the processing and quality of the final product. The technology enables the production of distinctive and difficult-to-replicate goods on a large scale.

#### Global innovation network

Borealis has built up Borstar as a global innovation network with more than 100 employees and over 1,000 active patents. The system was developed and continues to improve through joint innovation projects with customers and value chain partners. In the last two years, Borealis has invested more than EUR 240m in R&D, or 2% of its revenue during the same period.

#### One-fifth of revenue from new products

20% of Borouge sales volume was generated by new products developed within the preceding five years. The company has multiple new research projects covering all end markets and, going forward, aims to maintain this ratio above 20%. Borouge also has its own budget for R&D to maintain a competitive edge. It has more than 240 modern testing equipment and over 25 polymer research laboratories.

Overall, Borealis and Borouge invest continually to produce unique items that are superior to standard offerings and command a price premium.

#### Premium over benchmarks

Borouge reviews its product range on a regular basis. The high degree of product differentiation allows the company to charge more for them than the industry benchmark. Our review is limited to information provided by the company over the past four years; based on this, it has yielded premiums of USD 140-330/MT in PE and USD 100-150/MT in PP.

The company anticipates an over-the-cycle premium of USD 200/MT for PE and USD 140/MT for PP because of its distinct product mix and capacity to seize regional demand and pricing possibilities.

By over-the-cycle, we mean an average premium across the business cycle. This implies that during times of strong demand, premiums may be greater

than the stated guidance, and during periods of low demand and business stress, premiums may be lower than guided.

#### Benchmark price stabilization since the re-opening of China

Benchmark prices rose significantly in 2021 because of a capacity crunch caused by adverse weather conditions including hurricanes and deep freezes in the US. Over the same period, demand for plastics grew substantially, due to pandemic-induced commerce and the need for health and safety equipment to help contain the virus.

Resumption of US capacity and new capacity additions to cater to excess demand led to overcapacity in 2022. This caused a significant decline in benchmark prices, which affected the margins of key plastic producers, including Borouge.

The opening of the Chinese economy has resulted in the revival of its export industries, resulting in higher demand for polymers. This strong demand has supported polymer prices, which have stabilized following the free fall of 2022.

All in all, these high prices are supportive for Borouge. The company does not have any new capacity additions planned for the next two years, and the increase in prices is key to its revenue growth, supported by the premium its products command.

20%

11%

10%

4%

2%

0%

-10%

-13%

-20%

2021

2022

YTD 2023

**Chart 20: Benchmark price variations** 

<u>Source</u>: Refinitiv as of April 2023. <u>Note</u>: PE benchmark is based on HDPE Blow Molding CFR Far East Asia U\$/MT, and PP benchmark based on Raffia CFR Far Fast Asia U\$/MT.

### Preserving capital by carving out Borouge 4

ADNOC and Borealis inked a USD 6.5bn deal for the development of Borouge 4 (B4), an expansion project that includes the building of two 700 KT PE facilities and a 1.5 MT/year ethane cracker.

This development should boost PE production capacity to 4.1 MT annually. B4 is being built within the current Ruwais industrial complex, with operations set to begin in 2025. Ethane should be sourced through an existing contract with ADNOC, and the integration of the site is going to result in cost synergies and increased dependability.

#### Separate legal entity

B4 was carved out of Borouge in May 2022, just before the IPO. The construction is the responsibility of B4 LLC, a separate legal corporation that

ADNOC and Borealis control. The expansion project is thus legally and economically separated from Borouge.

#### The carveout limits financial and operational exposure

The B4 carve-out was done mostly to protect the capital and cash flow of Borouge. This was achieved by making sure that the development happened outside of its balance sheet and without any proprietary investment, to preserve its capital structure and ability to pay dividends. This also limits exposure to construction risks, such as cost overruns and delays.

#### Acquisition using debt financing

Borouge should integrate B4 following the completion of its construction against an acquisition payment, the amount of which is unknown to date. At the time of the contribution upon completion of the plant construction, the acquisition value should be determined by an independent third-party evaluation and an impartial opinion from reputable financial institutions. The purchase is expected to be financed through debt and could involve a single or a series of transactions.

After gauging the company repeatedly about the financing of B4, we got sufficient assurance and a sense of acute awareness from management about preserving shareholder interest and the capital structure and cash flow of the business, when it comes to financing B4.

Questions about the ability of the business to continue to pay a substantial dividend, as per the stated policy, have been met with great confidence about the future preservation of such dividend capacity.

We usually like to err on the side of caution, and to think of any future financing plans of the B4 scale, in a capital-intensive business, as risk factors. Having addressed this point repeatedly with management and knowing the beneficial and majority owners of Borouge, we find that this risk is mitigated, even if the capital structure of the business is likely to change from the current structure.

### Mandated for inorganic capacity expansion

PP5 was the company's most recent capacity enhancement, which increased PP capacity by 500 KT/year in 2022. The firm has no new capacity increases scheduled until 2025. B4 is expected to be integrated into the company in the second half of 2025. There are currently no stated organic growth plans beyond B4.

Borouge has been mandated by the board to explore international growth and expansion opportunities, concentrating on locations and markets that support its current objectives. We expect acquisitions could be centered on China and India, the company's two largest and fastest-growing markets. These markets, particularly India, have insufficient local supply to meet demand.

These are assumptions for now, which do not feed into our forecasting model. However, we expect that international expansion should boost cash flow although at lower margins due to the absence of ADNOC's assistance and integrated manufacturing complexes at foreign sites.

# Robust margins, high payout

The relationship of Borouge with its parent companies allows it to generate exceptionally high margins. Its cash flow-generating capabilities are robust. Its out-of-book capacity expansion puts the company in a great position to preserve its cash flow and dividends. In this section, we look at its financials in greater detail.

### Benchmark prices and premia drive the topline

Borouge generates revenue primarily by selling differentiated PE and PP solutions to multiple sectors at a premium price.

#### Selling volumes flat in the near term

The company has no organic expansion plan except for B4 in 2025E. Its capacity utilization was close to 100% in Q4 2022, and near 90% for 2022, after adjusting for the new PP5 plant. Due to the absence of new capacity, regular maintenance of existing assets and the current high utilization, PP and PE capacity are likely to remain largely unchanged until 2H25. Nonetheless, the company is looking at debottlenecking to increase production within its current production assets.

Considering current asset constraints, we anticipate a modest increase in sales volume in 2023E and 2024E on account of increased utilization of existing assets. As B4 is integrated into the production complex in the second half of 2025E, PE capacity and sales are forecast to increase significantly in 2025E and 2026E.

In 2022, PP capacity increased by 500KT, and we assume that PP sales volume should remain unchanged between 2022 and 2026E due to the lack of new capacity additions.

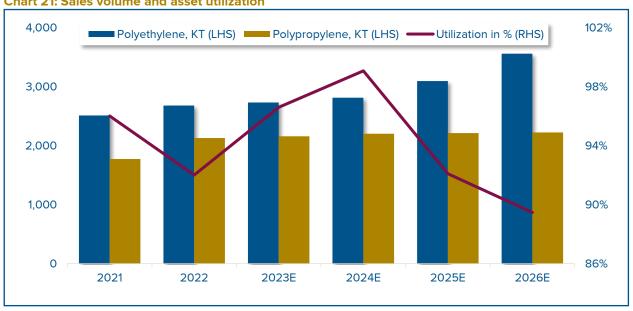


Chart 21: Sales volume and asset utilization

<u>Source</u>: Company data, Al Ramz Investment Research. <u>Notes</u>: Utilization figures for 2021 and 2022 are sourced from company documents. From 2023E, these are calculated as the ratio of sales volume to asset capacity. We assume 700KT of B4 capacity to be added in 2025E and the remaining 700 KT in 2026E.

#### Ability to generate a premium over the entire business cycle

PO selling prices are made up of the current benchmark price and the premium added on top of it. We assume a broadly unchanged benchmark price in 2023E and forecast a marginal increase on an annual basis for our remaining forecast period.

The increase is largely due to pandemic-related restrictions subsiding in China and increasing economic growth and urbanization in South and Southeast Asia.

Borouge has proven its ability to consistently realize premiums above benchmark prices. Our estimated premium for PE is lower than reported in 2022, as we expect the premium to normalize after reaching a record high in 2Q22 (USD 436) and to decrease to USD 217 in 4Q, with a yearly average of USD 311 per ton.

Chart 22: PE selling price/ton

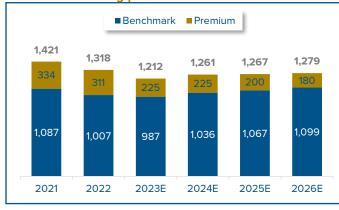


Chart 23: PP selling price/ton



Source: Company data, Al Ramz Investment Research

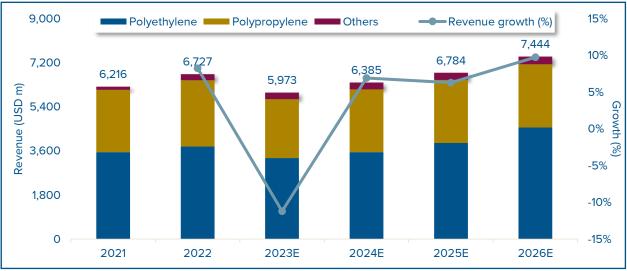
Source: Company data, Al Ramz Investment Research

#### Revenue expansion after B4 integration

We forecast a revenue decrease in 2023E due to the combined effect of a marginally lower selling price and unchanged selling volumes. Revenue is expected to increase strongly after the addition of B4 in 2025E. We assume a revenue CAGR of 2.6% between 2022 and 2026E and robust growth of 8% between 2024E and 2026E.

After the B4 integration, the revenue composition is also likely to shift more towards PE. We anticipate that by 2026E, PE should contribute 60% of total revenue, up from 54% in 2023E.

**Chart 24: Revenue evolution** 



Source: Company data, Al Ramz Investment Research

# Superior and stable margins

The feedstock procurement framework with ADNOC and the patented technology of Borstar enable Borouge to maintain higher margins than its



competitors. Nonetheless, group margins are subject to fluctuations; we expect the EBITDA margin to remain close to 40% in our forecast period.

The EBITDA margin decreased from 44% in 2021 to 38% in 2022 due to a decline in benchmark prices. However, it is notable that while the margin has decreased, it is still higher than that of global resin producers. In 2022, the margin decreased by 470 bps which is less than half of the decline recorded by global producers (-1,022 bps).

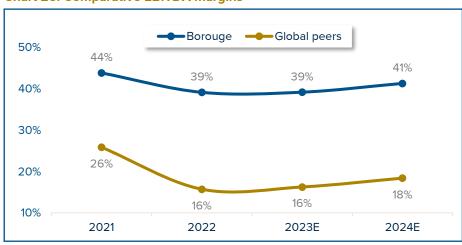
We conclude that margins for Borouge are superior, even in times of duress and low benchmark pricing. This reflects high, robust, structurally stable, and relatively cycle-independent profitability for the UAE producer, as compared to other global producers.

3,300 EBITDA USDm (LHS) Margin (RHS) 44% 44% 2,800 41% 41% 40% 2,300 39% **39**% 1,800 36% 2021 2022 2023E 2024E 2025E 2026E

Chart 25: Nominal EBITDA and margin

Source: Company data, Al Ramz Investment Research

The margin advantage of Borouge over peers visible today, even as the industry operates in a low-price environment. We believe that the margin advantage of the UAE manufacturer is structural and lasting.



**Chart 26: Comparative EBITDA margins** 

Source: Company data, Al Ramz Investment Research, Refinitiv. Notes: Global peers include LG Chemicals, DOW, LyondellBasell, Nan Ya Plastics, Formosa Plastics, Rongsheng, Yunnan Energy, Westlake, Formosa Chemicals, Chandra Asri, Yanbu, PTT Global, Petronas Chemicals, SABIC

# Healthy balance sheet, ready for expansion

We define gearing as the ratio of net debt to equity. For Borouge, this stood at 12% at the end of 2022, which is half the global peer average of 25%.

The leverage ratio compares net debt against operating profitability. The leverage level for Borouge stood at 1.1x at the end of 2022. We note that the current yearly EBITDA is close to its total net debt, allowing the company to repay its entire existing debt in the space of a single operating year.

In the context of the required capex for the B4 expansion, we note that the balance sheet structure currently gives Borouge the freedom to finance its requirements entirely using debt with little effect on its gearing or leverage levels.

In our forecast, gearing is expected to increase to 28% in 2025E due to the B4 acquisition. A gearing of 28% is low for capex-intensive industries, and it is still on par with the current global average. This allows us to conclude that the financial position of Borouge is robust and should remain so even after the financing of B4.

Our forecasts extend to 2026E, and for this duration, we expect the leverage ratio to remain below 3x, fluctuating between a high of 2.9x in 2025E and as low as 0.9x in 2024E, just before the commissioning of the expansion project. We expect the leverage to peak in 2025E and to decrease in the future as the company repays debt using its cash flow.

The company does not currently have any bank covenants or collateral for loans. We believe that the new debt Borouge takes on for the B4 acquisition may contain covenants. Nevertheless, based on our projections, leverage should continue to be manageable, and generally within any required thresholds. In addition, we believe that the anticipated ratios should have no effect on the company's operations or dividend-paying capacity.

■ Net debt to EBITDA 29 3.0 2.7 2.3 1.5 1.1 1.1 0.9 8.0 0.0 2022 2023E 2024E 2025E 2026E

**Chart 27: Leverage** 

Source: Company data, Al Ramz Investment Research, Refinitiv

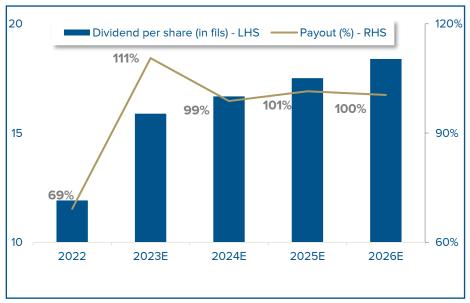
# Reliable through-the-cycle dividend capacity

Borouge has a semi-annual dividend distribution policy, with the 1H dividend of the fiscal year being paid out in September and the 2H dividend being paid out in March of the following calendar year.

Dividends are backed by strong profitability across the business cycle and a robust balance sheet to accommodate any expansion. For 2022, Borouge paid \$975m in dividends with \$325m in September 2022 covering 2Q22, and \$650m in March 2023 covering 2H22. For the FY23E Borouge intends to distribute a dividend of at least \$1,300m.

We assume a 5% increase in dividend payment each year over our forecast period from 2023E onwards. We estimate a dividend of 17 fils for 2023E, putting the yield at 6.3%, one of the highest in the UAE. We expect Borouge to pay dividends at a payout ratio of more than c. 100% in our forecasted period on the back of lower net debt and strong operating cashflow.





Source: Company data, Al Ramz Investment Research

### First quarter earnings: A blessing in disguise

Borouge reported its 1Q23 results on April 28. Headline numbers appeared weak but were largely anticipated and mostly attributable to the planned maintenance of B2. The share price increased by 3.4% in the week following the release of the results, indicating that the fundamental performance was in line with market expectations and largely priced in.

### Volumes impacted by external factors

Sales volumes for the quarter were up 5% YoY due to the favorable base effect from the commissioning of PP5 and the turnaround of B1 in the first quarter of 2022, which was partly offset by the B2 turnaround this past quarter.

Sequentially, volumes were down 18% on the back of the full impact of the B2 maintenance. We expect normalization of the numbers from this quarter onwards. We also point out that Borouge operates near capacity and seems to be able to sell everything it produces, notwithstanding the granularity of the volume fluctuations due to maintenance.

This is as good as it gets from a volume perspective, for a producer of this scale.

#### Improving pricing environment

Selling prices were down 14% annually for PE and 22% for PP from a record high in the same period last quarter. The price weakness is therefore essentially from the unfavorable base effect and the overall market price decline.

Sequentially, we already see some improvement in the price environment, following the reopening of China and notwithstanding some expected volatility. Prices show an encouraging uptick of 8% in PE and 6% in PP. All in all, the pricing situation in improving from last quarter.

#### Stock thrust on encouraging numbers

Combining the impact of higher volume and lower selling prices, revenues were down 13% annually. On a sequential basis, the decline is similar but with a reversed volume/price mix impact.

EBITDA decreased along with revenues but to a larger extent, by roughly 30% YoY to \$460m. The margin also fell significantly to 33% from 41% in the same quarter last year, due to the stickiness of some operating expenses.

The value enhancement program did well and is on target to deliver \$400m, with +\$100m achieved in Q1. This is another encouraging sign for the margin, which we also expect to normalize progressively over the year to reach our annual target of 39.1%.

Table 6: 1Q23 result summary

	1Q22	4Q22	1Q23	QoQ (%)	YoY (%)	Cons.	Diff. (%)
Sales volume (K tons)							
PE	610	733	573	-22%	-6%		
PP	458	628	488	-22%	<b>7</b> %		
Total	1,100	1,415	1,157	-18%	5%		
Selling prices (USD/ton)							
PE	1,399	1,116	1,202	8%	-14%		
PP	1,381	1,016	1,082	6%	-22%		
P&L summary (USD m)							
Revenue							
PE	904	880	758	-14%	-16%		
PP	652	672	555	-17%	-15%		
Total revenue	1,590	1,593	1,382	-13%	-13%	1,359	2%
EBITDA	644	541	460	-15%	-29%	464	-1%
Margin	41%	34%	33%				
Net income	363	247	201	-19%	-45%	216	-7%
Margin	23%	16%	14%				

Source: Company data, Consensus from Refinitiv

# **Appealing valuation**

We value Borouge using three methods: discounted cash flow (DCF), dividend discount model (DDM), and relative valuation (RV). We summarize these methods below and detail them in the next sections.

We use **DCF** because the company has long-term visibility over its cash flow, and this technique also encompasses the capex profile, which is key to its expansion narrative.

Our **DDM** involves valuing the company based on its anticipated future dividend stream. This strategy is effective since we have detailed insight into its dividend policy.

Our **RV** consists of benchmarking the EV/EBITDA valuation of Borouge to that of its peer group.

Our fair value is the average of the three approaches and comes out to **AED 3.25 per share**, which represents a 20% potential upside from the last closing price and warrants an **over-weight rating**. At our fair value, the dividend yield for 2023E is c. 5.0%.

**Table 7: Valuation summary** 

Valuation method	Price
Discounted cash flow	3.18
Dividend discount model	3.16
Relative valuation	3.35
Average	3.25

Source: Al Ramz Investment Research

# Valuation assumptions

Our valuation assumptions are the following:

**Risk-free rate:** We derive the risk-free rate from the current yield on the UAE 10-year government bond, as provided by our fixed-income desk.

**Equity risk premium (ERP):** We derive the ERP from the difference between the long-term historical average market return and the risk-free rate.

<u>Terminal growth:</u> We assume that the long-term growth rate for Borouge should be in line with the GDP growth of the regions in which it sells its products, notably South/Southeast Asia, i.e., 3.0%.

**<u>Beta:</u>** Borouge has been listed for a short period of time. We therefore calculated its theoretical beta as the average of two different sources: The five-year beta of the global peer group, and the empirical beta of Borouge since listing.

Table 8: Global polymer peers for beta calculation

Company	5-year beta
Chandra Asri Petrochemical	1.41
Dow	1.35
Formosa Chemicals & Fibre	0.68
Formosa Plastics	0.64
LG Chem	1.14
LyondellBasell Industries	1.21
Nan Ya Plastics	0.79
Petronas Chemicals Group	1.09
PTT Global Chemical	1.7
Rongsheng Petrochemical	0.73
Saudi Basic Industries Corporation	0.83
Westlake	1.26
Yanbu National Petrochemicals Company	0.86
Yunnan Energy New Material	1.25
Global producer average	1.07
Borouge (beta, since listing)	0.53
Average	0.80

Source: Al Ramz Investment Research, Refinitiv

<u>Cost of debt:</u> The company has loans from a consortium of banks with an interest rate of 1-year LIBOR + 0.8%. The current LIBOR is close to 4.8% and adding the 0.8% spread, our cost of debt assumption comes out to 5.6%.

<u>Corporate tax:</u> Borouge targets an effective cash tax rate of c. 30%, in line with the year 2022, and does not anticipate any impact from the new UAE corporate income tax of 9%.

Table 9: Weighted average cost of capital

Item	Detail
Risk-free rate	4.00%
Equity risk premium	5.50%
Beta	0.80
Cost of equity	8.4%
Pre-tax cost of debt	5.6%
Effective tax rate	30.0%
Post-tax cost of debt	3.9%
Net debt	25.0%
Equity	75.0%
WACC	7.3%

Source: Al Ramz Investment Research

# Discounted cash flow: AED 3.18 per share

On a DCF basis, the fair value of Borouge comes out to AED 3.18 per share. We summarize our DCF valuation in tables 10 and 11 below.

**Table 10: DCF valuation** 

Operator	Item	Value (USD m)
	Enterprise value	28,656
Less	Net debt	2,576
Less	Non-controlling interest	22
Equals	Equity value	26,059
Divided by	No. of shares (m)	30,058
Equals	Implied value per share (USD)	0.87
FX: 3.6725	Implied value per share (AED)	3.18

Source: Al Ramz Investment Research

**Table 11: DCF valuation details** 

USD m	2022	2023E	2024E	2025E	2026E	Terminal value
EBIT	2,091	1,789	2,074	2,144	2,312	
Tax rate	28.6%	30.0%	30.0%	30.0%	30.0%	
Net operating profit after tax	1,493	1,252	1,452	1,501	1,618	
Plus: Depreciation	555	549	560	641	714	
Minus: Capex	113	240	240	6,250	750	
Minus: Change in working capital	(75)	(104)	48	47	77	
Free cash flow	2,010	1,665	1,724	(4,155)	1,505	36,210
Discount factor		0.95	0.88	0.82	0.77	0.77
PV		1,579	1,524	(3,425)	1,156	27,822
NPV	28,656					

Source: Al Ramz Investment Research

# Dividend discount model: AED 3.16 per share

Based on the DDM, the fair value of Borouge comes out to AED 3.16 per share. We summarize our DDM valuation in table 12 below.

**Table 12: DDM valuation details** 

AED	2022	2023E	2024E	2025E	2026E	TV
DPS	0.12	0.16	0.17	0.18	0.18	3.51
Discount factor		0.94	0.87	0.80	0.74	0.74
PV		0.15	0.14	0.14	0.14	2.59
NPV	3.16					

Source: Al Ramz Investment Research. Note: TV = Terminal Value

# Relative valuation: AED 3.35 per share

We now turn to a valuation of Borouge compared with its global sector peers. In the global peer set, we have taken companies that produce PE or PP and have a market cap greater than USD 5bn.

We have benchmarked Borouge against its peers using the EV/EBITDA multiple, a more appropriate ratio than the P/E for this capital-intensive industry which also captures some of the specifics of the Borouge structure, such as its preferential feedstock agreement with ADNOC.

Borouge commands a 120% EBITDA margin premium relative to peers, for a valuation which currently looks at par with its comparative set. We believe that a 20% valuation premium in this context is appropriate and decide to apply such premium to the global sector forward 23E multiple of 10.9x. This earns our local producer a fair value of **AED 3.35 per share**.

**Table 13: Valuation table** 

Company	Market Value (USD m)	EBITDA r	EBITDA margin (%)		BITDA
		2023E	2024E	2023E	2024E
Saudi Basic Industries	72,958	16.7%	19.2%	9.6	8.1
LG Chem	38,900	12.8%	15.1%	8.3	5.7
DOW	38,301	13.0%	15.2%	8.0	6.5
Lyondellbasell	29,844	13.4%	16.1%	6.8	6.7
Rongsheng Petro	19,269	11.6%	13.8%	9.4	7.6
Nan Ya Plastics	20,153	14.9%	17.0%	13.1	10.9
Formosa Plastics	19,527	14.1%	16.5%	18.3	14.8
Westlake	15,142	21.8%	22.7%	6.0	5.6
Yunnan Energy New Materials	13,302	48.6%	49.4%	12.9	9.6
Formosa Chemicals & Fibre	13,111	7.0%	8.3%	19.0	15.6
Petronas Chemicals	12,933	25.5%	25.2%	7.0	6.8
Yanbu	6,427	23.3%	29.3%	14.2	9.8
PTT Global Chemical	5,623	8.3%	9.2%	9.4	8.7
Average	23,499	17.8%	19.8%	10.9	9.0
Borouge	22,098	39.1%	41.3%	10.6	9.4
Premium/(Discount)		120.2%	108.7%	-3.2%	4.7%

Source: Refinitiv, Al Ramz Investment Research

# Technically aligned, bullish view

Borouge traded with a bang upon listing, on the back of a healthy subscription book. The stock was shortly up nearly 35% from the IPO price to AED 3.27 which constituted its historical high. It was all downhill from there, until the shares met again with their IPO price and historical trading low of AED 2.45, on January 30 of this year. This weakness looked quite overdone and un-substantiated, and made for a visible, technical low. Since then, the shares have gathered some steam. Our fundamental fair value of AED 3.25 is aligned with our technically bullish view of the shares.

# **Summary financials**

#### Income

USD m	2021	2022	2023E	2024E	2025E	2026E
Revenue	6,216	6,727	5,973	6,385	6,784	7,444
YoY change		8%	-11%	7%	6%	10%
EBITDA	2,722	2,630	2,338	2,634	2,785	3,025
YoY change		-3%	-11%	13%	6%	9%
Operating profit	2,208	2,075	1,789	2,074	2,144	2,312
YoY change		-6%	-14%	16%	3%	8%
Profit for the year	1,527	1,409	1,176	1,382	1,413	1,498
Normalized EPS, USD	0.05	0.05	0.04	0.05	0.05	0.05
DPS, AED		0.12	0.16	0.17	0.18	0.18

### **Balance sheet**

USD m	2021	2022	2023E	2024E	2025E	2026E
Total non-current assets	7,717	7,294	7,019	6,734	12,380	12,453
Total current assets	2,064	2,941	3,014	3,388	3,294	3,325
Total assets	9,781	10,235	10,034	10,123	15,673	15,778
Total equity	4,844	4,870	4,745	4,762	4,741	4,734
Total non-current liabilities	4,299	4,338	4,347	4,357	9,868	9,880
Total current liabilities	638	1,028	941	1,004	1,064	1,163
Total liabilities	4,937	5,366	5,288	5,360	10,932	11,044
Total equity and liabilities	9,781	10,235	10,033	10,122	15,673	15,778

### **Cash flow**

USD m	2021	2022	2023E	2024E	2025E	2026E
Net cash from operating activities	2,075	2,294	1,937	1,994	2,133	2,306
Net cash used in investing activities	(252)	247	(260)	(260)	(6,270)	(770)
Net cash from (used in) financing activities	(1,720)	(1,959)	(1,413)	(1,470)	3,936	(1,682)

### **Ratios and margins**

	2022	2023E	2024E	2025E	2026E
EV/Sales	3.7	4.1	3.9	3.6	3.3
EV/EBITDA	9.4	10.6	9.4	8.9	8.2
P/E	15.7	18.8	16.0	15.6	14.8
Dividend yield, %	4.4%	5.9%	6.2%	6.5%	6.8%
EBITDA margin, %	39.1%	39.1%	41.3%	41.1%	40.6%
Net margin, %	20.9%	19.7%	21.6%	20.8%	20.1%
ROE, %	29.0%	24.5%	29.1%	29.7%	31.6%
Net debt/EBITDA	1.1	1.1	0.9	2.9	2.7

 $Sources: Al\ Ramz\ Investment\ Research,\ Company\ financials.\ 2021\ Balance\ sheet\ and\ cashflow\ statement\ represent\ ADP\ numbers.$ 

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