

BRASKEM SA  
Form 6-K  
February 22, 2017

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**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

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**FORM 6-K**

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13A-16  
OR 15D-16 OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the month of February, 2017**  
**(Commission File No. 1-14862 )**

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**BRASKEM S.A.**

*(Exact Name as Specified in its Charter)*

**N/A**

*(Translation of registrant's name into English)*

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**Rua Eteno, 1561, Polo Petroquimico de Camacari**  
**Camacari, Bahia - CEP 42810-000 Brazil**

*(Address of principal executive offices)*

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Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F  Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K  
in paper as permitted by Regulation S-T Rule 101(b)(1).

Indicate by check mark if the registrant is submitting the Form 6-K  
in paper as permitted by Regulation S-T Rule 101(b)(7).

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to  
the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82- \_\_\_\_\_.

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***Braskem reports record EBITDA of R\$11.5 billion, up 23% on 2015***  
*Braskem Idesa's EBITDA contribution reaches R\$537 million*

**HIGHLIGHTS:**

Brazil:

4 Demand for resins (PE, PP and PVC) in the Brazilian market came to 1.2 million tons in 4Q16, increasing 13% from 4Q15 and declining 6% from 3Q16 due to seasonality. Braskem sold 824 kton in the quarter, up 10% from 4Q15, in line with market demand, and down 7% from 3Q16. In the year, resin demand was 4.9 million tons, contracting 1% in relation to 2015.

4 The Company's crackers operated at an average capacity utilization rate of 90% in the quarter, 7 p.p. higher than in 4Q15, despite the impact from a scheduled shutdown at the cracker in Bahia state in the period. In the year, reflecting the strategy to focus on operating efficiency, the crackers operated at an average utilization rate of 92%, increasing 3 p.p. from 2015 and setting a new record for the Company.

4 This operating performance supported resin production of 1.2 million tons in 4Q16, growing 6% from 4Q15. In the year, resins production was 4.9 million tons, up 4% compared to 2015.

4 Braskem's exports in the quarter were 415 kton, increasing 44% from 4Q15 and decreasing 2% from 3Q16. In the year, exports amounted to 1.7 million tons, expanding 24% from 2015, and setting a new record for the Company.

4 In 4Q16, the units in Brazil, including exports, posted EBITDA of R\$1,821 million. In 2016, EBITDA was R\$8,485 million, which corresponds to 74% of consolidated EBITDA.

United States and Europe:

4 In the quarter, the PP plants in the United States and Europe operated at an average capacity utilization rate of 95%, down 6 p.p. from 4Q15, due to the scheduled shutdown of the Marcus Hook Unit. In the year, the PP plants operated at an average capacity utilization rate of 100%, up 2 p.p. from 2015, reflecting the units' good operating efficiency. This scenario supported resin production of 482 kton in 4Q16, down 5% from 4Q15, and 2 million tons in the year, up 2% on 2015, setting a new record.

4 Sales in the quarter came to 502 kton, declining 3% from 4Q15, due to the scheduled shutdown in the United States and Germany. In the year, given the good operating performance and strong PP demand, especially in the U.S. market, sales volume advanced 2% to 2 million tons.

4 Other highlights were (i) the commissioning of the first ultra-high molecular weight polyethylene plant in La Porte, Texas, in October 2016, to meet demand from clients in North America and Europe, and (ii) the investments made to debottleneck the PP plant in Marcus Hook, Pennsylvania that increased the plant's nameplate capacity to 64 kton per year.

4 In 4Q16, the units in the United States and Europe posted EBITDA of US\$103 million (R\$338 million). In 2016, EBITDA was US\$696 million (R\$2,463 million), or 21% of the Company's consolidated EBITDA.

Mexico:

4 The polyethylene plants operated at an average capacity utilization rate of 73% in 4Q16, 10 p.p. higher than in 3Q16, and were affected by a scheduled shutdown at an ethane supplier in October. In the year, the polyethylene plants operated at an average capacity utilization rate of 42%, which is in line with the Company's expectation for the complex's ramp-up in the year.

4 PE production in the quarter was 193 kton, increasing 16% from 3Q16. In the year, PE production amounted to 443 kton. PE sales in the quarter came to 199 kton, growing 30% compared to 3Q16, with 41% sold in the Mexican market and 59% exported. In the year, PE sales amounted to 432 kton, of which 46% was sold in Mexico's domestic market.

\*The preliminary unaudited financial information set forth in this document is subject to adjustments and modifications. The audit of the financial statements and related notes for the year ended December 31, 2016 is still in progress. Adjustments and modifications to the financial statements may be identified up to its issuance, which could result in differences from this preliminary unaudited financial information.

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4 In 4Q16, the Mexico unit posted EBITDA of US\$104 million (R\$343 million). In 2016, EBITDA was US\$165 million (R\$537 million), or 5% of the Company's consolidated EBITDA.

Braskem – Consolidated:

4 In 2016, Braskem set new records for EBITDA in both Brazilian real and U.S. dollar, of R\$11,508 million and US\$3,304 million, which represent growth on the prior year of 23% and 18%, respectively. The improvement is mainly due to (i) the good operating performance at all units; (ii) healthy resin and basic petrochemical spreads in the international market; (iii) higher export sales volume from Brazil; (iv) the performance of the operations in the United States and Europe; (v) the Mexico complex beginning to contribute its result; and (vi) the 5% average Brazilian real depreciation.

4 In 4Q16, the Company posted EBITDA of R\$2,385 million and US\$729 million, both down from 3Q16, which is explained by: (i) seasonality, with weaker sales volume; and (ii) lower petrochemical spreads in the international market. Compared to the same period last year, EBITDA advanced 10% in Brazilian real and 30% in U.S. dollar.

4 In 4Q16, Braskem posted a net loss of R\$2,637 million in the Consolidated and a net loss of R\$2,552 million in the Parent Company. In 2016, the net loss was R\$768 million in the Consolidated and R\$452 million in the Parent Company.

4 Reflecting the Company's solid cash generation and commitment to financial health, corporate leverage, as measured by the ratio of Net Debt to EBITDA in U.S. dollar, stood at 1.67, down 13% from the prior year, reflecting the US\$145 million reduction in net debt in U.S. dollar combined with the 11% increase in EBITDA in the last 12 months.

4 In December 2016, the Company concluded the Global Settlement with the Brazilian Federal Prosecution Office ("MPF"), the U.S. Department of Justice ("DoJ"), the U.S. Securities and Exchange Commission ("SEC") and the Swiss Office of the Attorney General to resolve the wrongdoings involving the Company in connection with Operation Car Wash. Under the Global Agreement, the Company will pay the applicable authorities in Brazil and abroad approximately US\$957 million, equivalent to approximately R\$3.1 billion.

4 Braskem's common shares (BRKM3) closed 2016 quoted at R\$29.99, representing a gain of 101% from end-2015, while its class "A" preferred shares (BRKM5) appreciated by 37.8% from the close of 2015 to R\$34.25.



## EXECUTIVE SUMMARY

The year 2016 was marked by uncertainty in the political and economic environments both locally and internationally. In the international scenario, the uncertainties generated by the United Kingdom's exit from the European Union, by the new paradigm of more moderate economic growth in China and by the U.S. presidential elections led to stagnant growth in international trade and lower investment, which also reflected the slower-than-expected growth in the world economy.

In Brazil, the latest round of indicators for economic growth were weaker than expected, with the main factor the negative GDP growth in the third quarter due primarily to lower borrowing, given the higher levels of debt held by households and businesses. This context, combined with the persistent bottlenecks contributing to Brazil cost and the prolonged political and institutional crisis, affected the country's economy and consequently demand for resins in the Brazilian market.

### Brazil:

During the quarter, the Company's focus in Brazil remained on carrying out the scheduled shutdown at the cracker in Bahia, which was completed on time and on budget and guaranteed the efficiency of sales to the Brazilian market, and on the feedstock diversification project, with progress on the investments made during the cracker's scheduled maintenance shutdown.

In the international market, crude oil traded at US\$49/barrel in 4Q16, increasing 13% and 7% from 4Q15 and 3Q16, respectively, influenced by the market's positive expectations regarding the OPEC agreement to curb production. Naphtha, the feedstock used by Braskem's crackers in Bahia, São Paulo and Rio Grande do Sul, followed the oil price trend to register an average price of US\$440/ton in the quarter, or 7% and 15% higher than in 4Q15 and 3Q16, respectively.

In the year, oil averaged US\$43/barrel, 17% lower than the average price of the previous year. Following the downward trend in oil, the average naphtha price in 2016 declined to US\$385/ton to match the rate of decline in the average oil price.

The U.S. Gulf price reference for ethane, the feedstock used by the Rio de Janeiro cracker, averaged US\$177/ton (24 ¢/gal) in 4Q16, or 36% and 27% higher than in 4Q15 and 3Q16, respectively, reflecting the increase in natural gas prices, higher domestic consumption and stronger export volumes. In the year, the average ethane price was US\$146/ton (20 ¢/gal), up 7% from 2015.

In this scenario, the average international spread<sup>1</sup> for the thermoplastic resins produced by Braskem in Brazil<sup>2</sup> stood at US\$649/ton in 4Q16, up 5% from 4Q15 and down 13% from 3Q16, due to the time lag for the passthrough of the higher naphtha prices to resin prices in the international market. In the year, the average spread in the international<sup>3</sup> market for the thermoplastic resins produced by Braskem in Brazil<sup>4</sup> reached US\$677/ton, down 3% from the average spread in the prior year but still sustaining high levels.

In the case of key basic petrochemicals<sup>5</sup>, the spread reached US\$325/ton in 4Q16, increasing 17% from 4Q15, due to higher prices, especially for USG-butadiene, which gained 9% in the period, explained by stronger demand driven mainly by improvement in Asia's auto industry. Compared to 3Q16, spreads declined 9%. In the year, the average spread stood at US\$321/t, up 1% on the prior year.

In 4Q16, EBITDA from the units in Brazil, including exports, was R\$1,821 million, down 6% from 4Q15, explained by the 14% appreciation in the Brazilian real in the period. In the year, EBITDA from the units in Brazilian, including exports, was R\$8,485 million, which represents 74% of the Company's consolidated segments, with new records set for resin and basic petrochemicals production volume and for exports.

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<sup>1</sup> Difference between the price of petrochemicals and the price of naphtha, ethane and propane in accordance with the feedstock mix of the units in Brazil.

<sup>2</sup> 53% PE (USA), 34% PP (Asia) and 12% PVC (Asia), based on the capacity mix of Braskem's industrial units in Brazil.

<sup>3</sup> Difference between the price of petrochemicals and the price of naphtha, ethane and propane in accordance with the feedstock mix of the units in Brazil.

<sup>4</sup> 53% PE (USA), 34% PP (Asia) and 12% PVC (Asia), based on the capacity mix of Braskem's industrial units in Brazil.

<sup>5</sup> 25% ethylene and propylene, 35% BTX, 10% butadiene, 5% cumene and 25% fuels, based on the capacity mix of Braskem's industrial units in Brazil

United States and Europe:

At the operations in the United States and Europe, the focus remained on commissioning the new plant in Texas producing ultra-high molecular weight polyethylene, and on the scheduled maintenance shutdowns in Marcus Hook, USA and in Schkopau, Germany.

In 4Q16, the average price of U.S. Gulf (USG) propylene, the main feedstock used by the United States and Europe units, was US\$797/ton, down 4% from 3Q16, influenced by end of the industrial maintenance period in the United States, when the propylene supply in the country increases. During the year, the average U.S. Gulf (USG) price reference for propylene was US\$759/ton, down 12% on the prior year, given the higher supply of propylene in the market following the startup of a propane-based propylene production unit in the region.

The PP price reference in the United States averaged US\$1,385/ton in 4Q16, down 5% from the average price in 3Q16, reflecting the weaker demand from the PP market in the period.

In this scenario, PP<sup>6</sup> spreads in the United States reached US\$588/ton in 4Q16, contracting 19% and 5% from 4Q15 and 3Q16, respectively. In the year, PP<sup>7</sup> spreads in the United States stood at US\$702/ton, increasing 24% on the prior year, influenced by the higher propylene supply and the stronger demand for PP in the U.S. market.

The lower spreads led EBITDA from the units in the United States and Europe to decrease to US\$103 million in 4Q16, down 21% from 4Q15. In the year, the operations in the United States and Europe delivered significant results, with record EBITDA of US\$696 million (R\$2,463 million), which is 116% higher year over year and represents 21% of the Company's consolidated segments. The result was mainly due to the Company's strategy to ensure its operating and commercial efficiency, which enabled the units to register a capacity utilization rate of 100%, and to take advantage of market opportunities given the strong demand for PP in the regions.

Mexico:

In Mexico, the focus in 4Q16 remained on ramping up production at the polyethylene plants, which operated at average capacity utilization rate of 73%, and on anticipating, to 2017, the pit stop at the cracker for a scheduled equipment substitution, given the scheduled maintenance shutdown at an ethane supplier.

In the year, the Company's efforts at the Mexico unit were focused on (i) ensuring the stability of the complex's production; (ii) growing sales in the Mexican market and strengthening relations with local clients; and (iii) exporting products in synergy with the Braskem operations in other regions.

In 4Q16, EBITDA from Mexico came to R\$343 million (US\$104 million), increasing 60% from 3Q16, mainly due to the higher sales volume. In the year, EBITDA came to US\$165 million (R\$537 million), which represents 5% of the consolidated segments, with the PE plants registering an average capacity utilization rate of 42%, in line with the Company's estimate.



Braskem – Consolidated:

Consolidated EBITDA in U.S. dollar was US\$729 million, up 30% from 4Q15, due to the higher spreads for resins and basic petrochemicals in the international market and to the inauguration and good performance of the petrochemical complex in Mexico. Compared to 3Q16, EBITDA decreased 21%, mainly due to seasonality.

In 2016, Braskem posted record EBITDA in Brazilian real and U.S. dollar of R\$11,508 million and US\$3,304 million, representing growth on the prior year of 23% and 18%, respectively. The improvement is mainly due to (i) the good operating performance; (ii) healthy resin spreads in the international market; (iii) higher export sales volume from Brazil; (iv) the performance of the operations in the United States and Europe; (v) the Mexico complex beginning to contribute with its result; and (vi) the 5% average Brazilian real depreciation.

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<sup>6</sup> Difference between the U.S. PP price and the U.S. Propylene price.

<sup>7</sup> Difference between the U.S. PP price and the U.S. Propylene price.

Braskem's cost-cutting program delivered an effective gain of R\$118 million in the quarter. In 2016, the program delivered an effective gain of R\$368 million and a recurring gain of R\$395 million, after completing 66% of the initiatives planned. The gains are distributed in the following categories: reduction in fixed and variable costs and optimization of investments.

As part of its contribution to sustainable development, Braskem remains focused on finding solutions to mitigate risks and on creating shared value. In this respect, Braskem operates on three fronts: (i) increasingly sustainable operations; (ii) increasingly sustainable products; and (iii) solutions for a more sustainable life.

Braskem's commitment to sustainable development also supported important internal achievements and external recognition in 2016. This year, Braskem was named a Climate Leader by the Carbon Disclosure Project Brazil and became the first Brazilian company to be included on the Climate A List of CDP Investor. The Company also confirmed its inclusion in the 12<sup>th</sup> portfolio of the Corporate Sustainability Index (ISE) of the São Paulo Stock Exchange (BM&FBovespa) and was included for the fifth straight time in the Dow Jones Sustainability Emerging Markets Index.

#### Compliance:

In 2016, Braskem launched a comprehensive Compliance Program to strengthen its governance, aiming to significantly reduce the likelihood of similar events that led to the need of the Global Settlement with the authorities occur again.

In addition to the initiatives already implemented in 2016, the Program presents actions that will also take place in the course of 2017, among them:

- (i) Creating, in May 2016, a Compliance Committee formed by independent members of the Board of Directors and reporting directly to the Board of Directors.
- (ii) Hiring, in August 2016, a Chief Compliance Officer (CCO) with proven experience, who reports to the Compliance Committee, to head the Compliance department.
- (iii) Expanding the number of Team Members specializing in Compliance to work in the Internal Controls, Risk Management, Compliance and Internal Audit departments, while also increasing the resources available, based on best practices in compliance.
- (iv) Creating the Internal Audit department, which is responsible for analyzing processes independently and objectively, for verifying compliance with policies and procedures, and for assessing the effectiveness of controls.
- (v) Approval by the Board of Directors of a Compliance Policy focused on acting with ethics, integrity and transparency, and which includes anti-corruption policies and policies on related-party transactions.
- (vi) Incorporating anti-corruption clauses in service agreements with third parties.

(vii) Implementing a comprehensive training program, which includes senior managers (decision-makers) and key departments (e.g., Legal and Compliance), focused on best compliance practices and the need to strengthen the control environment.

(viii) Implementing a training program for all team members of the Company, to be concluded during 2017.

(ix) Producing communications on compliance from leaders for distribution to the entire Company.

(x) Administering training and producing training materials, in 2017, on the Corporate Affairs Guide, to regulate interaction with politicians and executives at state-owned companies.

(xi) Improving the process for registering suppliers by implementing controls in the payment process and incorporating compliance clauses in service agreements with third parties.

(xii) Implementing and assessing improvements in the internal controls related to processes that have presented vulnerabilities in the past, such as the publication of new manuals and the monitoring and accounting of commission payments, to ensure that preventive and detective controls are in place to mitigate risks.

## **OUTLOOK**

Despite the consistent downward path in inflation and the increase in investor confidence in recent months, the same macroeconomic challenges of 2016 remain in place in 2017. Although a recovery in economic growth is expected in 2017, the consensus expectation is calling for gradual and slow growth. According to the Central Bank report of December 2016, industrial activity in Brazil should grow by 0.6% in 2017, with the GDP growth forecast for the year revised downward from 1.3% to 0.8%.

In the international market, according to the International Monetary Fund (IMF), the outlook improved for advanced economies in 2017 and 2018, given the stronger economic activity registered in the second half of 2016 and expectation of fiscal stimulus in the United States. For emerging markets and developing economies in general, the growth outlook worsened marginally, with an upward revision for China given the expectation of economic stimulus and downward revisions for large countries like Mexico given the uncertainties associated with the election of Trump.

In the oil market, the expectation is for OPEC members to maintain their agreement and other producers to limit global supply, which could support higher oil prices and consequently boost the competitiveness of gas-based producers in relation to naphtha-based ones.

In the petrochemical industry, new polyethylene capacities coming online in the United States as of end-2017 and mainly in 2018 could pressure polyethylene spreads in the international market in the period, with a recovery expected as of 2019. For other resins (PP and PVC), the expectations are calling for stability in spreads at sustainable levels, especially in the U.S. market for PP, where no new capacity is expected before the end of the decade.

In this scenario, the Company's strategy will be to focus on: (i) diversifying its feedstock profile and geographic footprint to mitigate the volatility of the petrochemical cycle; (ii) exports, while capturing synergies across Braskem's units and commercial offices; (iii) strengthening its petrochemical operations by ensuring high operating efficiency, productivity and competitiveness at units in all regions, with the highlight the stabilization of production at the Mexico complex; (iv) seeking new opportunities for growth in PP based on competitive propylene feedstock in the United States; (v) continually enhancing its compliance program and governance practices; while maintaining its financial health and cost discipline.

## **4 BRAZIL**

Braskem's results in Brazil are formed by the following segments: Basic Petrochemicals, Polyolefins, Vinyls and Chemical Distribution.

In 4Q16, the segments in Brazil posted net revenue of R\$12,262 million and EBITDA of R\$1,821 million, which accounted for 82% and 74%, respectively, of the Company's consolidated segments.

## **1. BASIC PETROCHEMICALS**

The Basic Petrochemicals segment is formed by and operates four petrochemical complexes (Camaçari, Triunfo, São Paulo and Rio de Janeiro) producing olefins, aromatics and utilities.

These units have total annual ethylene production capacity of 3,952 kton, of which approximately 78% is naphtha-based, 16% is gas-based and the remainder is ethanol-based. Of the total ethylene produced by the Basic Petrochemicals Unit, around 80% is transferred for use by Braskem's Polyolefins and Vinyls segments.

Total annual propylene production capacity is 1,585 kton, of which approximately 65% on average is transferred for use by the Company's Polyolefins segment.

The following table provides a financial overview of this segment:

### **Capacity Utilization:**

The average capacity utilization rate in 4Q16 stood at 90%, which is explained by the continued good performance of the crackers, especially in São Paulo and Rio Grande do Sul, which operated at utilization rates of 95% and 100%, respectively, which also minimized the effects from the scheduled maintenance shutdown of the cracker in Bahia that lasted some 40 days. The average capacity utilization rate in the quarter was 7 p.p. higher than in 4Q15, a period that was adversely affected by the incident at the cracker in São Paulo, and 6 p.p. lower than in 3Q16.

Another positive highlight in 4Q16 was the ethane- and propane-based cracker in Rio de Janeiro, which operated at an average capacity utilization of 95%, increasing 14 p.p. and 7 p.p. from 4Q15 and 3Q16, respectively.

In 2016, Braskem's crackers operated at an average capacity utilization rate of 92%, an increase of 3 p.p. from 2015, which is mainly explained by: (i) the good operating performance of the crackers, in line with the Company's strategy to ensure its operating efficiency in order to serve the Brazilian market, while exporting any volumes not absorbed; and (ii) the higher availability of feedstock at the gas-based cracker in Rio de Janeiro.

### **Production:**

Due to the good operating performance, the production of basic petrochemicals in 2016 amounted to 8.5 million tons, increasing 3% from 2015 and setting a new record for the Company. In the year, ethylene production also set a new record and posted growth of 3% on the prior year.

**Internal Transfers:** The Basic Petrochemicals segment transfers mainly ethylene to the Vinyls segment and ethylene and propylene to the Polyolefins segment.



### **Sales Volume – Brazilian Market:**

In 4Q16, sales volume of key basic petrochemicals to third parties in the market amounted to 459 kton, up 8% from the year-ago period, driven by the growth of 37% in paraxylene sales volume compared to 4Q15, and the higher sales volumes of ethylene and propylene. Compared to 3Q16, sales volume of key basic petrochemicals fell 8%, which is explained by the lower supply of products due to the scheduled shutdown of the cracker in Bahia and by seasonality.

In 2016, sales volume of key petrochemicals to third parties was 1.8 million tons, up 5% from 2015.

### **Net Revenue – Domestic Market:**

In 4Q16, net revenue came to R\$4,811 million (including R\$2,588 million related to sales to the Polyolefins and Vinyls units), down 5% from 4Q15, mainly due to the 14% Brazilian real appreciation between periods. In U.S. dollar, net revenue was US\$1,461 million, improving 11% from 4Q15, mainly reflecting the higher sales volume of basic petrochemicals, led by gasoline and paraxylene, and the higher prices for basic petrochemicals in the international market, especially for butadiene<sup>8</sup>, whose price gained 50% in the period, driven by stronger demand on improving auto sales in Asia.

In 2016, net revenue from domestic sales in Brazil came to R\$19,490 million (including R\$10,775 million from sales to the Polyolefins and Vinyls units), increasing 1% compared to 2015. The increase is mainly explained by the higher sales by volume of basic petrochemicals to third parties, with the highlight the redirecting of gasoline sales to the domestic market, which grew by 66% from the prior year.

In U.S. dollar, net revenue came to US\$5,611 million, down 4% from the previous year, mainly due to the lower prices for key basic petrochemicals in the international market, which were partially offset by the 5% depreciation in the Brazilian real between periods.

### **Sales Volume – Export Market:**

In 4Q16, exports of key basic petrochemicals came to 163 kton, down 15% from the same period of 2015, which is basically explained by the shift in the sales mix given the priority on paraxylene and propylene sales in the domestic market. Compared to 3Q16, export volume of key basic petrochemicals decreased by 16%.

In 2016, exports of key basic petrochemicals reached 705 kton, down 7% from 2015, which is mainly explained by the substitution of propylene export volumes to supply to a client in the



acrylics complex in Bahia and by the higher volume of transfers to the Polyolefins segment to produce PP, with these factors partially offset by the higher exports of benzene and butadiene.

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<sup>8</sup> USG Butadiene – Base IHS: 4Q15 US\$735/t vs. 4Q16 US\$1,105/t

**Net Revenue - Export Market:**

In 4Q16, net revenue from exports of basic petrochemicals amounted to R\$1,737 million, increasing 41% from 4Q15, which is mainly explained by the higher sales volumes and increases in the international price references for butadiene and benzene. In U.S. dollar, net revenue from exports came to US\$527 million, increasing 65% from 4Q15.

In 2016, net revenue from exports was R\$5,572 million, 13% higher than in 2015, mainly due to: (i) the depreciation in the Brazilian real between periods; and (ii) the higher sales volume and better international price references for certain basic petrochemicals, especially butadiene.

In U.S. dollar, net revenue from exports was US\$1,627 million, increasing 11% from 2015.

**COGS:** naphtha, HLR (refinery gas), ethane and propane are the main feedstocks used by the Basic Petrochemicals segment to produce olefins and aromatics. Petrobras supplies 100% of the HLR, ethane and propane consumed by Braskem and around 70% of the naphtha, with the remainder met by imports from various suppliers.

In 4Q16, cost of goods sold at the Basic Petrochemicals Unit amounted to R\$5,312 million, up 1% from 4Q15. The 14% appreciation in the Brazilian real was offset by the higher production volume and higher raw material costs.

In 4Q16, the ARA naphtha price reference averaged US\$440/ton, increasing 7% compared to 4Q15, which is primarily explained by higher oil prices on expectations of an agreement between the Organization of Oil Exporting Countries (OPEC) and non-members to cut production and reduce global oversupply.

For the supply of naphtha in the Brazilian market (average of n-1 quote), the international price reference averaged US\$418/ton, up 1% compared to 4Q15, when the average price was based on the three-month moving average.

The USG price reference for ethane, the feedstock used by the Rio de Janeiro cracker, averaged 24 ¢/gal (US\$ 177/ton), increasing 36% from 4Q15, explained by: (i) the 38% higher natural gas price compared to the year-ago period; (ii) stronger domestic consumption; and (iii) the logistics debottlenecking project to support higher export volumes.

The USG price reference for propane averaged 58 ¢/gal (US\$302/t), increasing 39% compared to 4Q15, which is explained mainly by the higher export volume and stronger demand for heating, given the expectation of a more rigorous winter.

In U.S. dollar, the cost of goods sold of the Basic Petrochemicals unit was US\$1,613 million in 4Q16, increasing 18% on 4Q15.

In 2016, COGS was R\$20,263 million, up 1% from 2015, mainly due to the higher total production volume and the 5% depreciation in the Brazilian real between the periods, with these factors partially offset by the lower prices for key feedstocks in the international market.

In 2016, the ARA naphtha price averaged US\$385/ton, down 17% from 2015, explained by lower oil prices. The decrease mainly reflects (i) the higher production and uncertainties concerning global supply; (ii) higher inventories, especially in the U.S. Gulf region; and (iii) lower demand for fuel production.

Regarding the supply of naphtha in the Brazilian market (average of n-1 quote), the international price reference averaged US\$379/ton in 2016, decreasing 23% from 2015 (when the average price was based on the three-month moving average).

In 2016, the USG price reference for ethane, the feedstock used by the Rio de Janeiro cracker, averaged 20¢/gal (US\$146/ton), increasing 7% from 2015, explained by the stronger demand resulting from logistics debottlenecking projects, which supported higher export volumes.

Meanwhile, the USG price reference for propane in 2016 averaged 48 ¢/gal (US\$ 252/ton), increasing 7% from 2015, which is explained by the equalization of inventories given the higher consumption by dehydrogenation (PDH) units, the stronger export volumes and the stability in PP production volume.

In U.S. dollar, COGS at the Basic Petrochemicals Unit amounted to US\$5,855 million in 2016, down 4% from 2015.

### **SG&A Expenses:**

In 4Q16, selling, general and administrative expenses amounted to R\$185 million, down 8% from the same period of 2015, due to the lower export volume and consequently lower logistics expenses.

In 2016, selling, general and administrative expenses amounted to R\$697 million, up 6% from 2015, which is explained by the higher total sales volume and increased logistics costs, primarily with exports.

### **EBITDA:**

In 4Q16, the Basic Petrochemicals segment posted EBITDA of R\$1,080 million, up 10% from 4Q15, mainly due to higher spreads for key basic petrochemicals in the international market, led by the butadiene/naphtha spread, which increased 106%. In U.S. dollar, EBITDA amounted to US\$330 million, advancing 29% from the same period in 2015. EBITDA margin stood at 16% in the quarter.

In 2016, the Basic Petrochemicals unit posted EBITDA of R\$4,913 million, an increase of 11% on 2015, which is mainly explained by the higher total sales volume, better spreads for certain petrochemical products and Brazilian real depreciation between periods. In U.S. dollar, EBITDA amounted to US\$1,416 million, up 7% from 2015.

In the year, EBITDA from the Basic Petrochemicals segment accounted for 43% of the Company's consolidated EBITDA.

## **2. POLYOLEFINS**

The Polyolefins segment is formed by 18 industrial plants in Brazil producing polyethylene (PE) and polypropylene (PP), which includes the production of Braskem's Green PE from renewable feedstock.

The industrial operations consist of the PE and PP plants located in the petrochemical complexes of Triunfo, Camaçari, São Paulo, Paulínia and Rio de Janeiro, which have combined annual production capacity of 3,055 kton of PE, with 200 kton of Green PE and 1,850 kton of PP.

The following table provides a financial overview of the Polyolefins unit:

**Capacity Utilization:**

The PE plants operated at an average capacity utilization rate of 87% in the quarter, up 6 p.p. from 4Q15, when capacity utilization was affected by the unscheduled shutdown of the São Paulo cracker. Compared to 3Q16, the average capacity utilization rate fell 6 p.p., influenced by the scheduled maintenance shutdown of one of the lines at the Bahia cracker. In 2016, the PE plants operated with an average capacity utilization rate

of 89%, up 2 p.p. from 2015, influenced mainly by the better performance of the plants in the states of Sao Paulo and Rio de Janeiro.

The PP plants operated at an average capacity utilization rate of 85% in 4Q16, up 9 p.p. from the year-ago period, which is explained by the better performance of the plants in São Paulo state. Compared to 3Q16, the average capacity utilization rate was 2 p.p. lower. In 2016, the PP industrial units operated with an average capacity utilization rate of 86%, up 10 p.p. from 2015, influenced by the better performance of the plants in São Paulo state and the Rio de Janeiro complex, given the higher supply of propylene to the Basic Petrochemicals segment.

### **Production:**

With the higher average capacity utilization rate, production by the Polyolefins segment came to 4,301 kton in 2016, setting a new record for PE production.

### **Brazilian Market:**

The estimated market for polyolefins (PE and PP) in 4Q16 reached 964 kton, up 12% from 4Q15. Compared to 3Q16, the estimated market for polyolefins contracted 6%, mainly due to seasonality. Despite the contraction, PE posted a solid performance, especially in the food, industrial and retail industries.

In 2016, the polyolefins market was estimated at 3.9 million tons, the same level as in 2015. The highlight in the year was the positive performance of packaging for the agricultural sector; the launch by Braskem of new products (Flexus Cling, Amppleo) and the creation of the WeCycle platform, an initiative to value plastic waste in the production chain through projects developed by the Company.

### **Sales Volume – Brazilian Market:**

Braskem's sales volume accompanied the performance of Brazil's polyolefins demand and grew 8% from the same period last year. Meanwhile, market share stood at 71%, down 3 p.p. from 4Q15.

Due to seasonality, sales volume in Brazil fell 9% compared to 3Q16. In the year, sales volume in Brazil decreased 1% from 2015, with market share of 73%, in line with the previous year.

### **Net Revenue – Domestic Market:**

Net revenue in 4Q16 came to US\$1,050 million, increasing 14% from 4Q15, supported by the stronger sales volume and higher prices in the international market. In Brazilian real, net revenue amounted to R\$3,311 million, or 3% lower than in 4Q15, reflecting the average Brazilian real appreciation of 14% between periods.

In 2016, net revenue came to US\$4,008 million, down 6% from 2015, mainly due to the lower PP prices in the international market. In Brazilian real, net revenue amounted to R\$13,903 million, or 1% lower than in 2015.

**Sales Volume – Export Market:**

Compared to 4Q15, when the Company prioritized sales to the domestic market following the reduction in production caused by the incident at the São Paulo site, exports advanced 37%. Compared to 3Q16, exports

contracted 8%. In the year, the polyolefins unit exported 1,590 kton, or 22% more than in 2015, led by exports of PP, mainly to South America and Europe and higher PE exports to northern South America, as a strategy to support the startup of the Mexico complex.

### **Net Revenue – Export Market:**

In 4Q16, net revenue from exports came to US\$431 million, increasing 20% compared to 4Q15, influenced by the higher export volume and better polyolefin prices in the international market. In Brazilian real, net revenue advanced 3%. In 2016, net revenue from exports was 3% and 8% higher than in 2015 in U.S. dollar and Brazilian real, respectively. The higher sales volume and Brazilian real depreciation offset the lower average prices in the international market.

**COGS:** ethylene and propylene are the main feedstocks used to make PE and PP, respectively. For PE production, 100% of the ethylene used is supplied by the Basic Petrochemicals Unit, as is 65% of the propylene used to make PP, with the remainder supplied by Petrobras.

In 4Q16, cost of goods sold (COGS) of the Polyolefins Unit amounted to R\$3,731 million, increasing 2% compared to 4Q15. The higher sales volume and price increases due to both the European ethylene price reference and USG propylene were partially offset by the stronger Brazilian real.

The average U.S. Gulf (USG) price reference for propylene stood at US\$797/ton, up 15% from the same quarter last year, mainly on the maintenance shutdowns at crackers and increased propylene export volume in the quarter. The European (NWE) price reference for ethylene, which is used for internal transfers, averaged US\$1,024/ton, increasing 2% from 4Q15.

In 2016, cost of goods sold (COGS) of the Polyolefins Unit amounted to R\$16,041 million, increasing 4% compared to 2015. The lower feedstock prices were insufficient to offset the higher sales volume and Brazilian real depreciation. The average price reference for ethylene in the U.S. Gulf (USG) was US\$759/ton, while the international price reference for Europe (NWE) averaged 1,005/ton, down 12% and 6%, respectively, from 2015.

### **SG&A Expenses:**

In 4Q16, selling, general and administrative expenses were R\$45 million, down 1% from the same period of 2015. In the year, SG&A expenses amounted to R\$1,301 million in 2016, increasing 6% compared to 2015, influenced by the higher sales volumes.

### **EBITDA:**

EBITDA amounted to R\$697 million, declining 16% from 4Q15. The higher sales volume and improvement in international spreads for polyolefins were insufficient to offset the 14% Brazilian real appreciation in the period. In U.S. dollar, EBITDA amounted to US\$213 million, decreasing 1% from 4Q15, with EBITDA margin of 15%, down 2 p.p. EBITDA in the segment



accounted for 28% of consolidated EBITDA, compared to 34% in 4Q15.

In 2016, EBITDA amounted to R\$3,295 million, down 10% from 2015. The lower international spreads were partially offset by the higher sales volume combined with the Brazilian real depreciation. In U.S. dollar, EBITDA contracted 15% to US\$948 million, with EBITDA margin of 16%, down 2 p.p. from 2015. In 2016, EBITDA from Polyolefins accounted for 29% of consolidated EBITDA, compared to 38% in 2015.

### **3. VINYLS**

The Vinyls segment is formed by the industrial and commercial operations of the PVC, Chlorine and Caustic Soda units, as well as other products such as hydrogen and sodium hypochlorite.

The industrial operations include three PVC plants located in the petrochemical complexes in Camaçari and Alagoas and the two chlor-alkali plants located in the same two petrochemical complexes.

The Company's annual production capacity is 710 kton of PVC and 539 kton of caustic soda.

The following table provides a financial overview of the Vinyls unit:

### **Capacity Utilization:**

The average capacity utilization rate of the PVC plants stood at 91% in the quarter, improving 14 p.p. from the same period of 2015. Compared to 3Q16, the average capacity utilization rate increased by 3 p.p. In 2016, the average capacity utilization of the PVC plants stood at 84%, up 7 p.p. from 2015.

### **Production:**

### **Brazilian Market:**

Estimated PVC consumption in 4Q16 amounted to 254 kton, growing 15% from the same period in 2015. Compared to 3Q16, domestic sales of PVC contracted 6%. In 2016, the Brazilian market for PVC contracted by 2% from the previous year, due to weaker activity in the construction and infrastructure sectors.

### **Sales Volume – Brazilian Market:**

In the quarter, PVC sales increased 17% from 4Q15, and decreased 1% from 3Q16. Meanwhile, market share stood at 54%.

In 2016, sales in the Brazilian market amounted to 528 kton, in line with 2015, with the highlight the sales made to the agricultural sector (irrigation tubing). Market share expanded to 52%, up 1 p.p. from 2015.

### **Net Revenue – Domestic Market:**

Net revenue in 4Q16 came to US\$205 million, increasing 15% from 4Q15, due to the higher sales volume and better prices for PVC in the international market. In Brazilian real, net revenue from the unit's domestic sales came to R\$675 million, down 1% from the same quarter last year.

In 2016, net revenue from domestic sales of vinyls increased 4% compared to 2015, to R\$2,695 million. In U.S. dollar, net revenue was US\$777 million, or 1% lower.



**Sales Volume – Export Market:**

For the seventh straight quarter, Braskem exported a portion of its PVC production. In 4Q16, exports amounted to 39 kton, compared to 13 kton in 4Q15. Compared to 3Q16, exports advanced 23 kton.

In the year, exports increased by 79% from 2015, influenced by the Company's strategy to export part of its PVC production given the weaker demand in the domestic market.

**Net Revenue - Export Market:**

Net revenue from PVC exports grew 69% and 65% compared to 2015 in U.S. dollar and Brazilian real, respectively, amounting to US\$92 million and R\$321 million.

**COGS:** Ethylene, energy and salt are the main inputs used by the Vinyls segment to produce caustic soda, chlorine and PVC. The ethylene is 100% supplied by the Basic Petrochemicals segment. In salt consumption, Braskem holds significant cost advantages over some competitors thanks to its low-cost extraction of sodium chloride (especially compared to sea salt) and low transportation costs, given its industrial unit's proximity to the salt mine.

In 4Q16, the unit's cost of goods sold (COGS) amounted to R\$732 million, increasing 29% from 4Q15, influenced by the higher production and sales volume.

In 2016, (COGS) amounted to R\$2,834 million, up 17% from 2015, mainly explained by the Brazilian real depreciation and the higher production volume and sales of vinyls in the period.

**SG&A Expenses:**

Selling, general and administrative expenses amounted to R\$68 million in 4Q16 and to R\$241 million in 2016, increasing 6% and 7%, respectively from the previous year, influenced by the higher sales volumes.

**EBITDA:**

EBITDA amounted to US\$12 million, declining 58% from 4Q15. In Brazilian real, EBITDA amounted to R\$38 million, down 65% from 4Q15, with EBITDA margin of 5%, down 10 p.p. The segment's EBITDA accounted for 2% of consolidated EBITDA, compared to 4% in 4Q15.

In the year, EBITDA from the Vinyls segment amounted to R\$241 million, down 32% from 2015. In U.S. dollar, EBITDA contracted 32% to US\$69 million, with EBITDA margin of 8%, down 5 p.p. from 2015. In 2016, the segment's EBITDA accounted for 2% of consolidated EBITDA, compared to 4% in 2015.

**4. CHEMICALS DISTRIBUTION (quantiQ):**

The chemicals distribution segment has a portfolio of more than 1,500 products. The products are classified as commodities, performance and specialties.

The following table presents a financial overview of the Chemicals Distribution unit:

### **Net Revenue:**

In 4Q16, net revenue was US\$58 million, down 7% compared to 4Q15. In Brazilian real, net revenue fell 21%, mainly due to the effects from the stronger Brazilian real on price-references in U.S. dollar.

Despite the higher sales volume influenced primarily by the better performance of the commodities segment, which includes products such as methanol and caustic soda, net revenue in the year decreased 9% from 2015, to US\$239 million. In Brazilian real, net revenue was R\$831 million, down 5% from 2015.

**COGS:** The main cost of the Chemicals Distribution Unit is the acquisition of products.

In 4Q16, cost of goods sold in the segment came to R\$153 million, down 20% from the same quarter of 2015. In the year, cost of goods sold amounted to R\$667 million, down 4% from 2015.

### **EBITDA:**

EBITDA in 4Q16 was US\$2 million, decreasing US\$1 million from 4Q15. In Brazilian real, EBITDA came to R\$6 million, a decrease of R\$ 5 million in relation to 4Q15, with EBITDA margin contracting 2 p.p. to 3%. EBITDA from Chemicals Distribution accounted for around 1% of consolidated EBITDA, the same level as in 4Q15.

In 2016, EBITDA came to US\$10 million, down 43% from the prior year. In Brazilian real, EBITDA contracted 40% to R\$36 million, with EBITDA margin of 4%, down 3 p.p. from 2015. In 2016, EBITDA from Chemicals Distribution accounted for around 1% of consolidated EBITDA, the same level as in 2015.

## **4 INTERNATIONAL BUSINESSES**

Braskem's overseas results are formed by the polypropylene plants and commercial operations in the United States and Europe and by Braskem Idesa, the petrochemical complex in Mexico.

## **5. UNITED STATES AND EUROPE**

The segment's results are formed by five industrial plants in the United States and two in Europe, with aggregate annual production capacity of 2,010 kton, with 1,465 kton in the United States and 545 kton in Europe.

In 4Q16, the segment posted net revenue of R\$2,014 million (US\$612 million) and EBITDA of R\$338 million (US\$103 million), representing 17% and 14%, respectively, of the Company's

consolidated revenue and EBITDA.

The following table provides a financial overview of the United States and Europe segment:

**Capacity Utilization:**

The plants in the segment operated at a capacity utilization rate of 95% in 4Q16, down 5 p.p. and 6 p.p. from 4Q15 and 3Q16, respectively. The decline was mainly due to the scheduled shutdown of the Marcus Hook Unit in the United States to carry out at a debottlenecking project to expand its production capacity. Compared to 3Q16, the lower decline reflects seasonality, since numerous clients reduce their operations during the holiday season.

In 2016, the segment's average capacity utilization rate stood at 100%, up 2 p.p. compared to 2015. The increase is mainly due to the optimization of PP grades implemented during the year and the strong demand for resins in both regions.

**Production:**

**Market:**

**United States**

PP supply increased in 4Q16 compared to 4Q15, reflecting the debottlenecking projects carried out at resin producers in the year to take advantage of the region's high polypropylene prices in 2016. In the same comparison, demand declined slightly, given the high propylene prices early in the quarter, which discouraged PP producers from building their inventories.

Compared to 3Q16, PP demand in the U.S. market decreased due to seasonality and high inventory levels.

Sales from domestic production of PP in the U.S. market contracted around 2% in 2016 compared to 2015, which was offset by the higher volume of PP imports, mainly from South Korea and Saudi Arabia. The sectors most affected by the increase in imports were housewares, carpets and biaxially oriented films, or BOPP (used in labels, tags and food packaging).

**Europe**

In Europe, demand for polypropylene increased compared to 4Q15, mainly due to the various unscheduled shutdowns that affected the region's resin producers in the year. The shutdowns led to a tight market and higher increases, which discouraged buyers, resulting in lower demand in the last quarter of the year.

The European PP market registered relatively weak demand in 4Q16 compared to 3Q16, which is explained by seasonality, since many converters temporarily ceased operations during the holiday season.

PP demand in Europe remained strong throughout 2016, exceeding expectations to grow by 4% compared to 2015. Relatively low PP prices, the growth in the auto and construction industries, the economic recoveries posted by European nations and an exchange rate favoring exports all supported stronger demand in the European market. Non-integrated producers posted their highest margins since 2007.

**Sales Volume:**

In 4Q16, sales volume in the United States and Europe segment decreased 4% from 4Q15 and 1% from 3Q16. The decline in sales is basically explained by the scheduled shutdown of the



Marcus Hook Unit in the United States and by seasonality.

In 2016, PP sales volume increased 2% from the prior year, reflecting the better operating performance of the units in the year and the stronger PP demand in Europe.

**Net Revenue:**

In 4Q16, net revenue came to US\$612 million, in line with 4Q15. In 2016, net revenue came to US\$2,553 million, up 3% from 2015, due to higher PP prices in the United States and higher sales volumes. In Brazilian real, net revenue was R\$2,014 million, down 15% from 4Q15, due to the 14% Brazilian real appreciation in the period. In 2016, net revenue came to US\$2,553 million, up 3% from the prior year, supported by higher PP prices in the U.S. market and the stronger sales volume.

**COGS:** The main feedstock used to make PP in the United States and Europe is propylene, which is supplied to the Company's industrial units by various local producers.

In 4Q16, cost of goods sold (COGS) of the segment amounted to US\$476 million, up -3% compared to 4Q15.

The average U.S. Gulf (USG) price reference for propylene in 4Q16 increased 15% from 4Q15, mainly due to the higher number of maintenance shutdowns at crackers and to the higher propylene export volume in the quarter, which reduced the monomer's supply.

The Europe price reference for propylene in 4Q16 averaged US\$793/ton, increasing 6% from the year-ago period (US\$749/ton), mainly due to higher oil prices and to the increased use of gas instead of naphtha as feedstock by the ethylene crackers, which limited the supply of propylene as a co-product.

In 2016, the segment's cost of goods sold (COGS) amounted to US\$1,760 million, down 16% compared to 2015.

The U.S. Gulf (USG) price reference for propylene averaged US\$759/ton in 2016, or 12% lower than in 2015, due to the feedstock's higher supply in the year from PDHs, which, despite some operating difficulties in the second half, operated at higher capacity utilization rates than in the prior year.

The Europe reference price for propylene averaged US\$727/ton, down 23% from 2015, mainly reflecting the limited supply during most of 2015, when low inventories and an above-normal number of unscheduled shutdowns led to price increases.

#### **SG&A Expenses:**

Selling, general and administrative expenses came to US\$49 million in 4Q16, up 32% from 4Q15, due to higher expenses with external audits for prior years and the correction of an expense allocation process.

In 2016, SG&A expenses amounted to US\$163 million, increasing 23% from 2015, due to higher expenses with strategic projects, higher costs with freight car leases and the expenses with external audits.

#### **EBITDA:**

EBITDA amounted to US\$103 million in the quarter, lower 21% than in the 4Q15, which is explained by the drop in the PP-propylene spread<sup>9</sup> (19% in USA and 2% in Europe) and by the scheduled shutdown at the Marcus Hook Unit in the United States to expand its production capacity. In Brazilian real, EBITDA was R\$338 million, accounting for 14% of consolidated EBITDA. In 4Q15, the segment accounted for 23% of total EBITDA.

In the year, EBITDA amounted to US\$696 million, increasing 116% from 2015, which is explained by the improvement in the PP-propylene spread (24% in USA and 16% in Europe)

and by the solid operating performance of plants throughout the year. In Brazilian real, EBITDA was R\$2,463 million, accounting for 21% of consolidated EBITDA.

## 6. MEXICO<sup>10</sup>

The segment is composed of an ethane-based cracker, two high-density (HDPE) and one low-density (LDPE) polyethylene plants, with combined annual production capacity of 1,050 kton of PE.

Since May 2016, the result of Braskem Idesa is no longer recorded as a project, but as a reportable operating segment, except for the result of the LDPE plant, which ceased to be considered a project in August.

The following table provides a financial overview of the Mexico unit in Brazilian real and U.S. dollar:

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<sup>10</sup> This unit includes the results of Braskem Idesa SAPI and of the other subsidiaries of Braskem S.A. in Mexico

<sup>9</sup> As of 2Q16, we are presenting the U.S. PP spread as follows to better reflect the U.S. market: difference between the U.S. PP (GP-homopolymer) price and the U.S. Propylene (polymer grade) price.

### **Production and Capacity Utilization:**

Still in the ramp-up phase, the PE plants operated in 4Q16 at an average capacity utilization rate of 73%, increasing 10 p.p. from the previous quarter. Total PE production volume in the quarter was 193 kton. In the year, the utilization rate was 42%, with PE production volume amounting to 443 kton.

### **Sales Volume:**

PE sales amounted to 199 kton in 4Q16, increasing 30% from 3Q16. In the year, PE sales came to 431 kton, which included resin resales to serve the Mexican market with grades not yet produced during the ramp-up phase.

Of the total sales volume, 46% was sold in the Mexican market and the remainder exported to various regions, in particular Asia, Europe and the United States.

### **Net Revenue:**

In 4Q16, net revenue was R\$714 million, increasing 33% from 3Q16, due to the higher sales volume in the period. In 2016, net revenue came to R\$1,587 million (US\$474 million).

The sales price of Braskem Idesa's PE in the Mexican market is based on the price of resins sold in the U.S. Gulf region, whose average price<sup>11</sup> stood at US\$1,115/ton, down 9% from 2015, accompanying the decline in oil prices, which in turn reduced the marginal cost of PE production.

### **COGS:**

For its ethane supply, Braskem Idesa has a long-term contract with the subsidiary of Petróleos Mexicanos (PEMEX), the Mexican state-owned oil and gas company, whose price is based on the USG ethane price reference.

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<sup>11</sup> 71.4% (HDPE USA) and 28.6% (LDPE USA), as per the capacity mix of the Braskem Idesa units in Mexico.



In 4Q16, COGS came to R\$427 million, increasing 31% from 3Q16, mainly due to the higher sales volume. The USG price reference for ethane averaged 24 ¢/gal (US\$ 177/ton) in the quarter, increasing 36% from 4Q15, explained by: (i) the 38% higher natural gas price; (ii) the higher domestic consumption; and (iii) the logistics debottlenecking projects that supported higher export volumes of the United States.

In 2016, COGS came to R\$1,016 million (US\$301 million). In the year, the USG ethane price reference averaged US\$146/ton, increasing 7% from 2015, which is explained by the stronger demand following the logistics debottlenecking projects, which supported higher export volumes of the United States.

### **SG&A Expenses:**

In 4Q16, selling, general and administrative expenses were R\$67 million, down 15% from 3Q16, due to lower expenses with technical advisory services. In 2016, SG&A expenses came to R\$240 million (US\$71 million). The highest expenses were with: (i) personnel; (ii) leasing of freight cars; (iii) advertising and marketing related to the complex's inauguration; and (iv) technical consulting services.

### **Other Operating Income/Expenses:**

In 4Q16, includes R\$39 million related to costs and expenses with idle capacity during the ramp-up phase of the petrochemical complex. In 2016, these expenses came to R\$139 million (US\$42 million).

### **EBITDA:**

In 4Q16, EBITDA amounted to R\$343 million (US\$104 million), increasing 60% from 3Q16, with EBITDA margin of 48%. The result was driven by higher sales volume, which supported the higher dilution of fixed costs compared to 3Q16. In 2016, EBITDA amounted to R\$537 million (US\$165 million), with EBITDA margin of 34%.

### **Financial Results Braskem Idesa**

The financial result of Braskem Idesa is mainly impacted by the debt contracted under the project finance structure and the loan to Braskem Idesa from the project's shareholders. In 4Q16, the net financial result was an expense of R\$636 million, which is explained by:

§ Interest on the project-finance debt: of R\$121 million, versus R\$108 million in 3Q16, and on the loan in the amount of R\$127 million, versus R\$109 million in 3Q16, which were adversely affected by the depreciation in the Mexican peso against the Brazilian real in the period;

§ Recognition of an expense of R\$24 million related to the adoption of hedge accounting in the profit and loss in 4Q16, compared to R\$21 million in 3Q16;

○ Expense of R\$331 million related to exchange variation on the outstanding balance of the loan, or R\$162 million more than in 3Q16, due to the sharper depreciation in the Mexican

peso against the U.S. dollar. As of December 31, 2016, the outstanding principal of this loan was US\$1,883 million.

In 2016, the net financial result of Braskem Idesa was an expense of R\$1,780 million, compared to the expense of R\$355 million in 2015, which is explained by (a):

§ Start of the transition to the financial result of interest, which previously were capitalized during the project phase, which affects the balances of the project finance debt (R\$491 million) and of the outstanding loan (R\$464 million);

○ Recognition of an expense of R\$60 million related to the adoption of hedge accounting in the profit or loss;

○ The effect from exchange variation on the loan in the amount of R\$1,059 million, arising from the 19% depreciation in the Mexican peso against the U.S. dollar between periods.

**Income Tax Braskem Idesa:**

The nominal income tax rate in Mexico is 30% on the base of taxable profit, which is net income adjusted by permanent and temporary differences, such as additions, exclusions and compensations authorized under tax legislation and any accumulated tax losses from prior periods. Furthermore, under Mexican law, tax losses must be used within a maximum period of ten years, with no limit on the amount of taxable income.

Considering that Braskem Idesa did not present taxable profit in 2016 and the accumulated tax loss is R\$7,219 million, there were no cash disbursements for payment of income taxes in the year.

**4 CONSOLIDATED**

The consolidated figures are formed by the results from the Brazil, United States & Europe and Mexico segments adjusted by eliminations and reclassifications.

The following table presents a financial overview of the consolidated results in the fourth quarter and fiscal year of 2016:



## § Net Revenue

The share of the Brazilian market in the Company's total net revenue (ex-resale of naphtha and condensate) in 4Q16 was 51%, in line with the same quarter of last year.

In 4Q16, net revenue reached US\$3.6 billion, up 16% on 4Q15, explained by the good performance of the Mexico complex; the 8% growth in sales volume in the domestic market; and the higher prices for resins and basic petrochemicals in the international market, mainly due to the higher oil prices in 4Q16 following the OPEC agreement to cut production signed in November. In Brazilian real, net revenue came to R\$11.9 billion, down 1% from 4Q15, reflecting the stronger Brazilian appreciation between periods.

In 2016, consolidated net revenue was US\$13.7 billion, down 3% from the prior year. The decline is explained by the 8% decrease in the international prices of resins and basic petrochemicals, mainly due to the lower oil prices and by the new resin capacities, especially for polypropylene, that came online in China during the year. Another factor contributing to the decline was the 1% lower sales volume in the domestic market compared to 2015. In Brazilian real, revenue came to R\$47.7 billion, up 2% from last year, due to the Brazilian real depreciation between the periods.

Excluding naphtha/condensate resales from the analysis, net revenue in the year increased by 1% in U.S. dollar and by 6% in Brazilian real.

In U.S. dollar, overseas revenue came to US\$6.6 billion in the year, down 3% from 2015, also influenced by the lower average price of resins and basic petrochemicals in the international market. In Brazilian real, revenue from overseas markets accounted for 48% of Braskem's total revenue, or R\$23 billion, of which R\$9.8 billion came from exports.

## § **Cost of Goods Sold**

Consolidated cost of goods sold (COGS) in 4Q16 amounted to US\$2,710 million (R\$8,926 million).

Excluding the COGS from resales (R\$826 million), consolidated COGS were R\$8,100 million, up 3% from 4Q15 (R\$7,835 million), which is explained by: (i) the startup of the Braskem Idesa complex; (ii) the higher sales volume; and (iii) the increase in feedstock prices, especially naphtha.

In 2016, consolidated cost of goods sold (COGS) amounted to US\$10,099 million or R\$35,052 million in Brazilian real. Excluding the COGS of resales (R\$2,579 million), consolidated COGS were R\$32,473, in line with COGS ex-resale in 2015 (R\$32,343 million), since the negative impacts from: (i) the startup of the Braskem Idesa complex; (ii) the 5% average Brazilian real depreciation between the periods; and (iii) the higher sales volume in the year, which were offset by the lower prices for feedstock, especially naphtha.

The share of naphtha in total COGS was 42.7%, down 1.8 p.p. from 2015, reflecting the lower naphtha price in the international market.

## § **SG&A Expenses**

General and administrative expenses in 4Q16 increased 26% compared to 4Q15, due to higher expenses with software maintenance licenses, legal services and advertising during the Paralympic Games.

In 2016, Selling, General and Administrative Expenses amounted to R\$3,032 million, up 16% from 2015, mainly due to: (i) the effects from the Brazilian real depreciation against the U.S. dollar on the expenses of the international businesses; (ii) the advertising expenses associated with the Paralympic Games; (iii) expenses with attorneys and auditors in connection with the internal investigation conducted during the year; (iv) higher expenses with software licensing; and (v) the startup of the Braskem Idesa petrochemical complex. In U.S. dollar, expenses amounted to US\$882 million, up 12% from 2015.

## § EBITDA

Braskem's consolidated EBITDA<sup>12</sup> in 4Q16 was US\$729 million, up 30% from 4Q15, which is explained by the 6% increase in resin spreads and 17% increase in basic petrochemical spreads in the international market, and by the inauguration and good performance of the Mexico complex. In Brazilian real, EBITDA came to R\$2,385 million.

In 2016, Braskem's consolidated EBITDA amounted to R\$11,508 million, increasing 23% from the previous year. In U.S. dollar, EBITDA advanced 18% to US\$3,304 million.

The improvement compared to 2015 is mainly explained by (i) the good operating performance registered by plants during the year; (ii) the inauguration and ramp-up of the petrochemical complex in Mexico; (iii) higher export volume; (iv) the improvements in PP-propylene spreads and the performance of the operations in the United States and Europe; and (v) the 5% average Brazilian real depreciation.

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<sup>12</sup> EBITDA is defined as the net result in the period plus taxes on profit (income tax and social contribution), the financial result and depreciation, amortization and depletion. The Company opts to present adjusted EBITDA, which excludes or adds other items from the statement of operations that help improve the information on its potential gross cash generation.

EBITDA is used by the Company's management as a measure of performance, but does not represent cash flow for the periods presented and should not be considered a substitute for net income or an indicator of liquidity. The Company believes that in addition to serving as a measure of operating performance, EBITDA allows for comparisons with other companies. However, note that EBITDA is not a measure established in accordance with International Financial Reporting Standards (IFRS) and is presented herein in accordance with Instruction 527 issued on October 4, 2012 by the Securities and Exchange Commission of Brazil (CVM).



## **Net Financial Result <sup>13</sup>**

In 4Q16, the net financial result was an expense of R\$898 million, compared to the expense of R\$646 million in 3Q16. Excluding the effects of exchange variation in the quarter, the net financial result was an expense of R\$497 million, compared to an expense of R\$396 million in the prior quarter, given the negative effect from higher interest rates on tax liabilities.

In 2016, the net financial result was an expense of R\$4,210 million, compared to an expense of R\$1,544 million in 2015, reflecting the start of the recognition of hedge accounting under profit or loss in the amount of R\$1,298 million and the 16.5% Brazilian real appreciation between the end of both periods, which negatively affected the balance of financial investments and accounts receivable in foreign currencies.

Excluding the effects of exchange and monetary variation, the net financial result was an expense of R\$1,827 million, compared to an expense of R\$2,086 million in 2015. This represents a reduction of R\$259 million, which is explained by the lower interest expenses and higher interest income, given the US\$365 million increase in the cash position and the holding of a higher cash position in Brazilian real than in 2015.

The following table shows the composition of Braskem's net financial result, excluding Braskem Idesa:

### **§ Net Income/Loss**

Due to the provision of the financial penalty under the Leniency Agreement, the Company recorded a consolidated net loss of R\$2,637 million in 4Q16 and of R\$768 million in the year. The result in the year also was adversely affected by the adopting of hedge accounting in the profit or loss, in the amount of R\$1,358 million. Net loss attributable to controlling shareholders was R\$452 million in the year.

### **§ Dividends**

In the year, the Board of Directors of the Company approved the distribution of R\$2 billion in dividends, which corresponds to 63% of net income for the previous fiscal year. The payments were made in April and October.

### **§ Liquidity and Capital Resources:**

On December 31, 2016, the Company's consolidated gross debt (excluding the US\$3.1 billion debt of Braskem Idesa) stood at US\$7,513 million, up 1% from the end of the previous

quarter.

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<sup>13</sup> Excludes the financial result of Braskem Idesa SAPI.

The balance of cash and cash equivalents amounted to US\$2,248 million, down US\$145 million from the balance at the end of September 2016. This balance excludes (i) US\$133 million in financial investments given as guarantee to cover Braskem's obligation related to the constitution of a reserve account for the project finance of the subsidiary Braskem Idesa, and (ii) the cash balance at Braskem Idesa of US\$62 million. Accordingly, Braskem consolidated net debt stood at US\$5,265 million at the end of December 2016, or 4% higher than in the previous quarter.

Financial leverage measured by the ratio of net debt to EBITDA in U.S. dollar ended the quarter at 1.67, up 3% from the ratio at the end of the prior quarter. In Brazilian real, this leverage ratio stood at 1.56.

Compared to December 31, 2015, the combination of the US\$145 million decline in net debt in U.S. dollar and the 11% growth in EBITDA in the last 12 months had a positive impact on the leverage ratio, which fell 12% in the year.

Through a Global Settlement with authorities in Brazil and abroad, the Company undertook to pay approximately US\$957 million, equivalent to approximately R\$3.1 billion. Including the value adjustment for December 31, 2016 present value of this amount in the Company's net debt, the adjusted leverage ratio in U.S. dollar would be 1.95 at year-end.

On December 31, 2016, the average debt term was 14.6 years, and considering only dollar-denominated debt, the average debt term was 17.4 years. The average cost of servicing the Company's debt was 6.14% in U.S. dollars and 9.96% in Brazilian reais, compared to 6.13% and 11.58%, respectively, in the prior year.

In line with its strategy to maintain high liquidity and its financial health, the Company also maintains two stand-by credit facilities in the amounts of US\$750 million and R\$500 million, both of which mature in 2019. The Company's stand-by credit facilities were not used in the period.

Braskem's liquidity position of R\$7,326 million is sufficient to cover the payment of all obligations maturing over the next 28 months. Considering the stand-by credit facilities, this coverage is 35 months.

The following chart details on Braskem's debt amortization schedule as of December 31, 2016:

#### § Risk rating agencies:

In 2016, Braskem maintained investment grade ratings at Standard & Poor's (BBB-) and Fitch Ratings (BBB-) and its credit risk is above Brazil's sovereign risk at the three main rating agencies (S&P, Fitch and Moody's).

The highlights in the year were:

- Fitch Ratings: In September 2016, Fitch reaffirmed Braskem's rating on the global scale rating of BBB- and upgraded the outlook from negative to stable. The upgrade was supported by Braskem's (i) strong cash generation, (ii) diversified feedstock profile following the startup of the Braskem Idesa petrochemical complex, (iii) cash position held abroad, and (iv) readily available stand-by credit facilities;
- Standard & Poor's: Despite Brazil's sovereign rating being downgraded by S&P in February, Braskem had its global scale rating reaffirmed at BBB-, with a negative outlook, supported by its solid cash position and the fact that it has overseas operations; and
- Moody's: In February, Moody's downgraded Brazil's sovereign rating and reaffirmed the negative outlook. According to the agency's scale, the rating was downgraded by two notches to Ba2. Accordingly, following the downgrading of the sovereign rating, Moody's downgraded Braskem's rating by one notch to Ba1.





§ **Investments<sup>14</sup>:**

In 2016, Braskem made investments in the aggregate amount of R\$2,975 million. The R\$687 million decrease compared to the initial projection of R\$3,661 million is explained mainly by the effect from the translation to Brazilian real of the investments made in U.S. dollar, and by the optimization of the investment portfolio, which led to the postponement/cancelation of certain operating and strategic projects.

Excluding Braskem's contributions to the Mexico project from the analysis, total investment came to R\$1,780 million, down 31% from the initial estimate of R\$2,334 million. Of this amount, R\$1,439 million, or approximately 81% of the total, was allocated to industrial operations (R\$107 million of which in the United States and Europe, equivalent to US\$33 million), including the investments related to operating efficiency, HES, productivity and maintenance. The other R\$341 million (of which R\$244 million in the United States and Europe, equivalent to US\$72 million) were allocated to strategic projects, such as: (i) investment to produce UTEC<sup>®</sup> resin in La Porte, USA; (ii) investment to diversify the feedstock profile of the cracker in Bahia; and (iii) investments to capture productivity gains at the PP plants in the United States and Germany.

**Investments in 2017**

Braskem plans to invest around R\$1,814 million this year, with R\$179 million pegged to the U.S. dollar (US\$51 million) related to operating investments at the units of the United States, Europe and Mexico.

Of this amount, R\$1,544 million will be allocated to maintenance, productivity, HES and operational efficiency, including disbursements with the scheduled maintenance shutdown of the cracker in Duque de Caxias, Rio de Janeiro, scheduled for 3Q17. The remainder will be allocated to other strategic projects, such as the feedstock diversification project at the cracker in Bahia (R\$236 million).

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<sup>14</sup> Includes the operating investments, maintenance shutdowns and spare parts of Braskem and its subsidiaries and the equity contributions to the Mexico project.

#### **4 VALUE DRIVERS:**

##### **UTEC®**

Braskem's new line to produce ultra-high molecular weight polyethylene (UHMWPE), known commercially as UTEC®, started operations in January 2017.

Located in La Porte, Texas, the plant will complement the production capacity of the existing UTEC line in Brazil at the petrochemical complex in Camaçari. Using 100%-Brazilian technology, UTEC® resin has a vast array of applications in industries such as automotive and transportation, electronics, fibers and textiles, industrial and heavy equipment, material handling, oil and gas, pipe and mining, porous plastics, recreation and consumer goods.

Production at the UTEC® plant in La Porte will serve mainly the U.S. market, although, in the future, the Company hopes to export the resin to destinations in Europe, India and China.

With investment of approximately US\$40 million, the plant's startup strengthens Braskem's position as one of the world's leading producers of UHMWPE.

##### **Debottlenecking of the Marcus Hook Unit in USA**

In line with the strategy to expand into international markets and meet the needs of its Clients, in 2016, Braskem invested around US\$21 million to debottleneck the PP plant in Marcus Hook, Pennsylvania, which increased its annual nominal capacity by 64 kton. The scope of the project included improvements to the propylene purifier and to the plant's resin production areas.

Furthermore, in the last two years, approximately US\$3 million was invested in projects to increase reliability, such as the pellet transfer system, the upgrading of tubing and other improvements to control processes that enabled the capture of productivity gains at the Company's plants in Texas, resulting in an expansion in production capacity of 42 kton/year.

Considering all the initiatives and efforts to capture favorable spreads in North America, Braskem's annual polypropylene capacity increased by 105 kton, from 1,465 million tons in 2016 to 1,570 million tons in early 2017.

##### **Project to diversify the feedstock profile in Bahia**

With investment of R\$380 million, the project will enable the cracker in Bahia to use ethane for up to 15% of its ethylene production. The investment also includes the retrofitting of the plant and adaptation of the port infrastructure, and is scheduled to start operating in the

second half of 2017.

To supply the feedstock, the Company signed an agreement with an affiliate of Enterprise Products for the purchase of ethane imported from the United States. The agreement has a term of 10 years and prices based on the Mont Belvieu international price reference.

The project is advancing, with the highlight this year the conclusion of the basic engineering, with the engineering detailing and management of procurement of critical items continuing to advance on schedule. This year, Braskem invested R\$82 million in the project. The Company already has invested a total of R\$120 million since the beginning of the project.

### **Sustainable Development**

Braskem continues to focus on strengthening its contribution to sustainable development, mitigating risks and seeking shared value creation. Its efforts in this area are structured along three main fronts: (i) Increasingly sustainable resources and operations; (ii) Increasingly sustainable products; and (iii) Solutions for a more sustainable life. The highlights in 4Q16 include:

§ WECYCLE platform: launch of first polypropylene resins made from recycled big bags and of the first polyethylene resins made from the sacks used at Braskem's distribution centers that previously were discarded. The combined production volumes of the two resins could potentially reach 50 tons per month

§ Climate Change: Braskem was elected Brazil's best company in carbon management, and with excellence, according to the Carbon Disclosure Project (CDP). This is the first time that a Brazilian producer has been included in the coveted Climate A List. (Clients, market and opinion makers)

§ Global Compact: Braskem, working together with the water utility SANASA, is spearheading implementation of the "Lower Losses, More Water Movement" in Brazil, which is aligned with Sustainable Development Goal 6 of the United Nations. Note the program was recognized by the Center for Sustainability Studies (GVces) for its entrepreneurial initiatives, with its case selected as one of ten best in water management in Brazil

#### **4 REPORTS OF IRREGULARITIES AND GLOBAL SETTLEMENT WITH AUTHORITIES**

##### **Allegations, internal investigation**

Braskem and its subsidiaries are subject to a number of anti-corruption laws in the countries where they operate, including Federal Law 12,846/2013, or the Brazilian Anticorruption Law, which came into force on January 28, 2014, and the U.S. Foreign Corrupt Practices Act (FCPA).

In March 2015, in connection with the so-called Operation Car Wash, certain allegations made by defendants in judicial proceedings were made public, according to which Braskem was allegedly involved in illegal payments in exchange for benefits in feedstock supply agreements entered into with Petrobras.

In light of said facts, the Company immediately approved the engagement of law firms with extensive and proven experience in similar cases in the United States and Brazil ("Expert Firms") to conduct an independent internal investigation into the allegations cited above ("Investigation"), under the supervision of and in collaboration with the U.S. Department of Justice (DoJ) and of the U.S. Securities and Exchange Commission (SEC). Until mid-July 2016, the Investigation was unable to find evidence confirming any wrongdoings by the Company.

##### **New reports and undue payments**

In late July 2016, the Company received new information concerning wrongdoings that came to light during the collaboration of former executives of Braskem in connection with the cooperation by Odebrecht with Operation Car Wash.

Based on such information, the Investigation confirmed the existence of payments made between 2006 and 2014 for services to third parties without any proof of the service being effectively rendered. These undue payments were made to three offshore companies and allegedly were related to the rendering of commercial intermediation services. These companies simply transferred the funds to a series of other companies, which ultimately made illegal payments on behalf of Braskem. The payments made by Braskem to these three companies from October 2006 to December 2014 amount to approximately R\$513 million.

As made public under the agreements with DoJ and SEC, the illegal payments included, among others, related to matters involving the naphtha supply agreement entered into with Petrobras in 2009 and terminated in 2014, and to amendments of federal and state tax law to obtain tax incentives and monetize tax credits to which the Company already was entitled, among others.

### **Payment of taxes**

The identification of these payments without the rendering of the corresponding service led to the recognition, in October 2016, of taxes payable to the federal government and to an adjustment to the account Deferred Income Tax and Social Contribution. The determination, in 2016, of these taxes due in prior fiscal years was recognized as a correction of material error, in accordance with accounting standard CPC 23, which led to its recognition retroactively in the 2015 and previous financial statements. The

calculated taxes that impacted the statement of operations for 2016 and previous fiscal years, including charges for late payment, amounted to R\$254,373. An additional amount of R\$13,704 was determined as an advance payment of income tax and social contribution, which was recognized under the Company's assets. These amounts were paid during the fourth quarter of 2016. The adjustment of the item Deferred Income Tax and Social Contribution, which impacted the statement of operations, amounted to R\$30,268.

### **Global Settlement with authorities**

With the confirmation of wrongdoings, on October 3, 2016, Braskem started discussions with DoJ and SEC to formalize an agreement to resolve any identified wrongdoing and seek a simultaneous agreement with Brazilian authorities, as disclosed to the market by means of a Material Fact, and later with Swiss authorities. This negotiation was delegated by the Board of Directors to the Board of Executive Officers of the Company.

As a result of these negotiations, on December 14, 2016, the Company entered into a Leniency Agreement (“Agreement”) with the Federal Prosecution Office of Brazil (“MPF”).

Additionally, on December 21, 2016, the Company finalized formal agreements with the DoJ and SEC, and an agreement to conclude investigations with the Office of the Attorney General of Switzerland (in conjunction with the Agreement with MPF, “Global Settlement”). The Global Agreement encompasses all of the facts determined until the date of its execution involving Braskem in connection with Operation Car Wash.

Under the Global Settlement, Braskem will pay the abovementioned authorities in Brazil and overseas a total of approximately US\$957 million, equivalent to approximately R\$3.1 billion. Of this total, approximately R\$1.6 billion will be paid at sight, after the ratification by respective authorities, of which approximately US\$95 million will be paid to DoJ, US\$65 million to SEC, CHF 95 million to the Office of the Attorney General of Switzerland and R\$736 million to MPF. The balance of R\$1.5 billion will be paid to MPF in 6 annual installments adjusted for inflation by the variation of the IPCA inflation index. Adjustment to present value was calculated over this amount. The amounts under the Settlement were booked in December 2016.

The Agreement was ratified by the 5<sup>th</sup> Coordination and Review Chamber of the Federal Prosecution Office on December 15, with ratification by the Judge of the 13<sup>th</sup> Federal Court of Curitiba still pending. The agreement with DoJ was ratified by U.S. courts on January 26, 2017, with only confirmation of the agreement by SEC still pending. The agreement with Swiss authorities was finalized on December 21, 2016.

To guarantee payment of the installments coming due, Braskem will give as collateral assets from its property, plant and equipment corresponding to one annual installment.

## Monitorship

Furthermore, Braskem will be subjected, for an expected period of three years, to two monitors appointed by U.S. and Brazilian authorities, who will work in coordination with the main objective of attesting to the Company's compliance with all commitments undertaken under the Global Settlement. The monitorship is expected to begin in the first quarter of 2017.

The commitments undertaken with the authorities that are party to the Global Settlement seek to improve the Company's control and accounting system to ensure the production of reliable financial information and to prevent any wrongdoings in violation of anti-corruption laws of countries in which the Company operates, now or in the future. Some of the actions required to achieve these goals include:

- (i) Management's commitment to and support for policies to prevent incidents of corruption;
- (ii) Strengthening policies and procedures to prevent corruption;
- (iii) Conducting regular reviews of policies and procedures to ensure they are up-to-date and effective;
- (iv) Providing team members, including managers, with regular training on anti-corruption policies and practices, and maintaining a system that makes these tools available to team members and to any third parties that interact with Braskem;
- (v) Maintaining instruments and resources for investigating reports of corruption within the Company;



(vi) Extending anti-corruption practices to entities that conduct business with Braskem and implementing procedures with this purpose in cases of business acquisitions.

## **Reimbursement**

A significant portion of the total amount of R\$2.2 billion to be paid to MPF will be made available for use in reimbursing third parties for any damages caused by the wrongdoings.

Under the Settlement, MPF undertook to coordinate actions with other authorities or public entities with which Braskem comes to transact for entering into agreements involving the facts uncovered in connection with the Agreement, the public prosecution offices of States and Cities in Brazil, state-owned companies and state-controlled companies for entering into similar agreements with such entities, including for the purpose of preventing duplicate restitution with regard to the amount paid under the Agreement.

The Agreement does not prevent any third party from opening proceedings to seek reimbursement for any damages caused by Braskem, which could result in payments other than those provided for in the Agreement. Therefore, the Company cannot guarantee that the total amount available for reimbursement will be sufficient to fully reimburse any third parties affected by the wrongdoings, which means that the Company may be subject to the payment of damages or financial penalties other than those provided for in the Global Settlement.

## **Control deficiencies**

After the investigation and confirmation of wrongdoings, the Company identified material control deficiencies, including: (i) instructions given by certain former senior executives (“Tone at the top”) for the creation of parallel procedures overriding existing controls and for enabling the existence of payments of commissions without the rendering of the corresponding service, in contravention of the Company’s principles of ethics, integrity and transparency; (ii) failure to maintain anti-corruption controls and deficiencies in the programs for preventing and detecting violations of the applicable anti-corruption regulations; and (iii) faults in the controls for payments of commissions and for monitoring the respective accounting entries.

**Compliance:**

In 2016, Braskem launched a comprehensive Compliance Program to strengthen its governance, aiming to significantly reduce the likelihood of similar events of non-compliance from reoccurring. It contains actions that will be carried out in 2017 as well.

These actions include:

- (i) Creating, in May 2016, a Compliance Committee formed by independent members of the Board of Directors and reporting directly to the Board of Directors.
- (ii) Hiring, in August 2016, a Chief Compliance Officer (CCO) with proven experience, who reports to the Compliance Committee, to head the Compliance department.
- (iii) Expanding the number of Team Members specializing in Compliance to work in the Internal Controls, Risk Management, Compliance and Internal Audit departments, while also increasing the resources available, based on best practices in compliance.
- (iv) Creating the Internal Audit department, which is responsible for analyzing processes independently and objectively, for verifying compliance with policies and procedures, and for assessing the effectiveness of controls.
- (v) Approval by the Board of Directors of a Compliance Policy focused on acting with ethics, integrity and transparency, and which includes anti-corruption policies and policies on related-party transactions.
- (vi) Incorporating anti-corruption clauses in service agreements with third parties.

(vii) Implementing a comprehensive training program, which includes senior managers (decision-makers) and key departments (e.g., Legal and Compliance), focused on best compliance practices and the need to strengthen the control environment.

(viii) Implementing a training program for all team members of the Company, to be concluded during 2017.

(ix) Producing communications on compliance from leaders for distribution to the entire Company.

(x) Administering training and producing training materials, in 2017, on the Corporate Affairs Guide, to regulate interaction with politicians and executives at state-owned companies.

(xi) Improving the process for registering suppliers by implementing controls in the payment process and incorporating compliance clauses in service agreements with third parties.

(xii) Implementing and assessing improvements in the internal controls related to processes that have presented vulnerabilities in the past, such as the publication of new manuals and the monitoring and accounting of commission payments, to ensure that preventive and detective controls are in place to mitigate risks.

### **Other considerations**

With the exception of the aforementioned amounts under the Global Settlement and of the other non-monetary obligations imposed on the Company under said settlement, the Company cannot predict or measure at this time the extent of the financial and non-financial impacts, if any, that the confirmation of the allegations, any actions by other authorities, potential parallel investigations or the execution of the Global Settlement could bring for the Company, as well as the resources required to remedy such events.

The Global Settlement may have a material adverse effect on our business, reputation, financial situation and operational results, as well as on the liquidity and price of the securities of Braskem. Furthermore, the negative publicity resulting from the Global Settlement, the facts made public through our agreement entered into with the DoJ, and the facts that will be made public when the Agreement is disclosed, could have a material adverse impact on our businesses, including reducing the demand for our products and other effects that currently cannot be estimated or measured. As a result of the Global Settlement, the Company may be barred from entering into certain agreements with government authorities and may be subject to increased operating costs in connection with its obligations to improve its governance and anti-corruption practices, including the cost of required external monitorship for an estimated period of three years.

It is not possible to predict the impacts on Braskem of others investigations or any decision or action taken by authorities involving its largest shareholders, namely Odebrecht S.A. and

Petróleo Brasileiro S.A. – Petrobras, or any of their subsidiaries.

#### **4 CLASS ACTIONS**

A class action has been filed with the U.S. courts by the Boilermaker-Blacksmith National Pension Trust, as Lead Plaintiff, alleging that the Company has made misrepresentations and/or omissions in certain filings at the SEC that allegedly concealed the existence of improper payments. The Company engaged an expert U.S. law firm to represent it and filed its initial defense (motion to dismiss) on July 6, 2016, which, after manifestation by the plaintiffs, is awaiting the judge's decision.

The Company cannot predict the outcome of this process. The Company may be cited as defendant in other lawsuits. Furthermore, the Company may be required, to the extent permitted by law, to indemnify directors, officers and employees who are defendants in lawsuits such as these. Such lawsuit has demanded significant time and dedication from the Management of the Company. Moreover, the Company may also incur financial obligations that could have a material adverse effect on its businesses, reputation, financial situation and results of its operations, as well as on the liquidity and trading price of its securities.

#### **4 SUBSEQUENT EVENTS**

##### **Authorization for asset acquisition**

On January 27, 2017, the Board of Directors of the Company authorized the execution of a purchase agreement with Odebrecht Utilities S.A., through which Braskem undertook to purchase all shares held by the seller in Cetrel S.A., which represent 63.7% of its voting capital, for the aggregate amount of R\$610 million, to be paid upon the consummation of the transaction.

Cetrel is an environmental services company that launched its operations in 1978, together with the companies that set up operations in the Camaçari Petrochemical Complex. With over 100 clients, or around 70% of the Camaçari Complex, Cetrel is responsible for treating and disposing of industrial wastewater and solid waste, environmental monitoring and supplying water for industrial use to Braskem's plants in Camaçari.

Cetrel will play an important role in managing the environmental processes of the Camaçari Petrochemical Complex, and its acquisition will ensure the security and reliability of the complex's industrial operations, in line with Braskem's strategy to strengthen its petrochemical activities

The consummation of the acquisition is subject to a vote by the Shareholders' Meeting of Braskem, in accordance with Article 256 of Brazilian Corporation Law, and to the conditions precedent typical to transactions of this nature.

## **Asset Divestment**

On January 10, 2017, Braskem executed a sales agreement with GTM do Brasil Comércio de Produtos Químicos Ltda., a subsidiary of GTM Holdings S.A. ("GTM"), through which it undertook to sell 100% of the shares in the capital of quantiQ Distribuidora Ltda. ("quantiQ"). The transaction is worth R\$550 million, of which R\$450 million will be paid upon consummation of the sale and the remainder within 12 months, subject to the adjustments typical to transactions of this kind.

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**DISCLAIMER**

**This release contains forward-looking statements. These forward-looking statements are not solely historical data, but rather reflect the targets and expectations of Braskem’s management. Words such as "anticipate," "wish," "expect," "foresee," "intend," "plan," "predict," "project," "aim" and similar terms seek to identify statements that necessarily involve known and unknown risks. Braskem does not undertake any liability for transactions or investment decisions based on the information contained in this document.**

**RESTATEMENT**

The consolidated financial statements for 2015 were restated retrospectively, due to:

- (i) Restatement arising from the recording of taxes from other periods

With the identification and reclassification of payments without evidence of provision of the corresponding service, the Management of Braskem determined the payment of all taxes due and the revision of deferred income tax and social contribution. These payments, when made, were taxed at a zero rate of withholding of income tax and considered deductible for the purposes of income tax and social contribution on profit. Since they were subsequently considered payments without provision of the corresponding service, these payments became non-deductible and subject to the withholding of income tax at the rate of 35%.

The consolidated financial statements for 2015 have been retrospectively restated to reflect the taxes of previous fiscal years calculated in 2016.

(ii) Other immaterial adjustments

In view of the restatement of these financial statements, the Management of Braskem decided to recognize other adjustments that were assessed in prior years as having no material impact, which will be detailed in the financial statements to be filed with the audit report.

**EXHIBIT I**

**Consolidated Statement of Operations**

**(R\$ million)**

**EXHIBIT II**

**Calculation of Consolidated EBITDA**

**(R\$ million)**



**EXHIBIT III**  
**Consolidated Balance Sheet**  
**(R\$ million)**

\* Includes exchange variation of financial liabilities designated for hedge accounting.

**EXHIBIT IV**  
**Consolidated Cash Flow**  
**(R\$ million)**

**EXHIBIT V**

**Braskem Idesa Statement of Operations**

**(R\$ million)**

**EXHIBIT VI**

**Braskem Idesa Balance Sheet**

**(R\$ million)**

**EXHIBIT VII**  
**Production Volume**

**EXHIBIT VIII**

**Sales Volume - Domestic Market – Main Products**

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**EXHIBIT IX**

**Sales Volume - Export Market - Main Products**

