BRASKEM SA
Form 6-K/A
April 12, 2018

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

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# FORM 6-K/A

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

**For the month of April, 2018**
**(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 ___X___ 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 ___X___

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 S.A.**

**C.N.P.J. No. 42.150.391/0001-70**

**N.I.R.E. 29300006939**

*A Publicly-Held Company*

# MANAGEMENT PROPOSAL

# FOR THE ORDINARY AND EXTRAORDINARY GENERAL MEETING OF BRASKEM S.A.

# TO BE HELD ON APRIL 30, 2018

Dear Shareholders,

The Management of Braskem S.A. (“Company” or “Braskem”) submits this management proposal (“Proposal”) related to the Ordinary and Extraordinary General Meeting of Braskem to be held on April 30, 2018 (“Meeting”), in accordance with the provisions of the Brazilian Securities Commission (“CVM”) Ruling No. 481, of December 17, 2009, as amended (“CVM Normative Ruling No. 481”).

Considering the Company’s interest, the Management presents the following information with regard to the matters included in the agenda for the aforementioned Meeting:

**I. <u>In Ordinary General Meeting</u>:**

***1. Review, discuss and vote on the Management Report and respective Managers' Accounts and Financial Statements of the Company, containing Explanatory Notes for the fiscal year ended on December 31, 2017, accompanied by the Independent Auditors' Report and the Fiscal Board's Report***

As approved by the Company's Board of Directors in a meeting held on March 28, 2018, pursuant to Article 26, item "v", of its Bylaws, the Management of the Company submits to your examination the Management Report, the Financial Statements of the Company, containing explanatory notes for the fiscal year ended on December 31, 2017, accompanied by the Independent Auditors' Report and the Company's Fiscal Board's Report, which were made available to the investors on March 29, 2018. The announcement set forth in the main section and Paragraph 1 of article 133 of Law 6,404, of December 15, 1976, as amended (<u>"Corporation Law</u>"), shall be published in the Official Gazette of the State of Bahia and in the newspaper "Correio da Bahia", pursuant to article 124 of the Corporation Law.

Also pursuant to article 133 of the Corporation Law, article 9 of CVM Normative Ruling No. 481, and article 25, item IV, of CVM Ruling No. 480, of June 7, 2009, as amended ("CVM Normative Ruling No. 480") the documents provided by the Company's management for your analysis of the Management accounts are:

(i) Management Report on the company's business and major administrative events of the fiscal year ended on December 31, 2017;

(ii) Financial Statements and explanatory notes for the fiscal year ended on December 31, 2017;

(iii) Form of Standard Financial Statements - DFP;

(iv) Independent Auditors' Report;

(v) Fiscal Board's Report;

(vi) Statement by the Officers that they have reviewed, discussed and agreed to the opinions expressed in the Independent Auditors' Report, informing the reasons, in case of disagreement;

(vii) Statement by the Officers that they have reviewed, discussed and agreed to the Financial Statements;

(viii) The comments by the Company's managers, pursuant to item 10 of its Reference Form (Exhibit I to this Proposal); and

(ix) Capital budget proposal prepared by the Management (Exhibit II to this Proposal).

***2. Resolve on the approval of the Capital Budget***

The Management of the Company proposes that the shareholders resolve on the capital budget for the financial year of 2018 for the period of one (1) year, pursuant to article 196 of the Corporation Law and article 25, paragraph 1, item IV, of CVM Normative Ruling 480, as per Exhibit II to this Proposal.

***3. Examine, discuss and vote on the Management's Proposal for the allocation of the net profit of the financial year ended on December 31, 2017***

The Management of the Company proposes that the shareholders resolve on the allocation of the net profit of the financial year ended on December 31, 2017, as per Exhibit III to this Proposal.

***4. Resolve on the election of the members of the Company's Board of Directors, as well as its President and Vice President, under article 19 of its Bylaws***

The Management of the Company proposes that the shareholders resolve on the election of eleven (11) effective members and their respective alternates for its Board of Directors for a unified term of office of two (02) years, which will be effective until the date of the Ordinary General Meeting which will resolve on the financial statements of the Company for the fiscal year to end on December 31, 2019, as set forth in articles 18 and 20 of the Company's Bylaws.

Exhibit IV to this Proposal includes the list and information about the candidates recommended by the Company's controlling company and by Petróleo Brasileiro S.A. Petrobras ("Petrobras") pursuant to the provisions of article 10 da CVM Ruling No. 481.

In the case of the Company, if only the majority election of the members of the Board of Directors takes place, pursuant to article 129 of the Corporation Law, all members recommended by the Company's controlling company and by Petrobras will be elected. Further, in case of majority voting, if the separate voting is requested (as explained below) and is successful (pursuant to article 141, paragraph 4 or paragraph 5, of the Corporation Law, observing the limits and requirements indicated above), in practice, ten (10) members recommended by the Company's controlling company and by Petrobras will be elected, in addition to one (1) effective member and respective alternate elected by the separate vote of the minority shareholders, since the number of outstanding common shares is not sufficient for election pursuant to item (i) of the paragraph below.

There may be separate voting by the Board of Directors' member if requested: (i) by shareholders holding common shares that represent, at least, fifteen percent (15%) of all voting shares of the Company, pursuant to article 141, paragraph 4, item I, of the Corporation Law; or (ii) by shareholders holding preferred shares that represent, at least, ten percent (10%) of the total capital of the Company, pursuant to article 141, paragraph 4, item II, of the Corporation Law. If the quorums set forth in items (i) and (ii) are not achieved, the separate voting for the election of one (1) effective member and respective alternate may be required by holders of common shares and preferred shares jointly representing, at least, ten percent (10%) of the total capital of the Company, pursuant to article 141, paragraph 5, of the Corporation Law. Such right may only be exercised by the shareholders that evidence their continuous ownership of the shareholding required for at least three months immediately before the Meeting.

It should be clarified that although the applicable legislation and regulations establish that common shareholders holding common shares representing at least five percent (5%) of the Company's share capital with voting rights may require the adoption of multiple votes for the election of members of the Board of Directors (Article 141 of the Corporation Law and CVM Ruling No. 165, of December 11, 1991, as amended), since the number of common shares issued by the Company in circulation do not reach the required quorum, the adoption of multiple votes is not a possible scenario.

In this same aspect, a separate election of a member of the Board of Directors requested by common shareholders, as mentioned in item 4, (i) above, will also be inapplicable, since the holders of common shares do not represent15% of the Company’s outstanding shares.

***5. Resolve on the election of members of the Company’s Fiscal Board***

The Company’s Management proposes to resolve on the election of five (05) effective members and their respective alternates to the Company’s Fiscal Board, for a term of office of one (01) year effective up to the date of the next Ordinary General Meeting concerning the financial year to end on December 31, 2018, pursuant to articles 40 and 41 of its Bylaws.

Exhibit IV to this Proposal includes the list and information about the candidates recommended by the Company’s controlling company, pursuant to article 10 of CVM Normative Ruling No. 481.

***6. Resolve on: (i) the annual and global compensation of the managers and members of the Fiscal Board for the fiscal year to end on December 31, 2018; and (ii) new ratification the compensation amount approved for the fiscal year ended on December 31, 2017***

The total amount proposed for the financial year of 2018 related to the overall compensation of the Managers in 2018 is seventy-two million, five hundred and ten thousand, six hundred and ninety-one Reais and sixty-one centavos (BRL 72,510,691.61), including fixed and variable fees and related to payroll charges recognized in the Company's results, as well as all applicable benefits. Moreover, the Management proposes for the financial year of 2018 the amount of one million, thirty thousand, one hundred and four Reais (BRL 1,030,104.00) concerning the compensation to the Fiscal Board's members, in compliance with the provision of article 162, paragraph 3, of the Corporation Law; therefore, totaling a global compensation to the Administrator and the Fiscal Board in the amount of seventy-three million, five hundred and forty thousand, seven hundred and ninety-five Reais and sixty-one centavos (BRL 73,540,795.61).

Pursuant to article 12 of CVM Normative Ruling No. 481, this Proposal contains thorough information referring to the setting of compensation for Managers and their Fiscal Board, pursuant to its Exhibits V and VI.

The annual and global compensation amount proposed above is based on a composition estimate for Managers’ fees pursuant to market reference, considering monthly fees (offset arising from inflation and merits), short-term (according to seniority and goals) and long-term (according to the Long-Term Incentive Plan - ILP approved or the year) variable fees and benefits.

Regarding the new ratification of the annual and overall compensation amount approved for the financial year ended on December 31, 2017, the additional amount of seven hundred and forty-one thousand, five hundred and forty-eight Reais and fifty-seven centavos (BRL 741,548.57) - object of resolution - results from the offsetting of the amounts overpaid to the Directors in 2017, against what was underpaid to the Executive Office in 2017.

The amount overpaid to the Directors results from the redefinition of the Company's Governance model, which increased the participation of independent Directors in the Company's Board of Directors and the compensation of the members of the Board’s Committees, which ended up impacting the Directors' remuneration strategy with a view to making the Company more competitive in the market.

**II. <u>In Extraordinary General Meeting</u>:**

***7. Resolve on the amendment to article 4 of the Company's Bylaws as a result of the share conversion exercised by minority shareholders of class "B" preferred shares;***

The Company's management proposes to resolve on the amendment to article 4 of the Company's Bylaws as a result of the share conversion exercised by minority shareholders of class "B" preferred shares, in order to reflect its updated share capital, which shall increase from eight billion, forty-three million, two hundred and twenty two thousand, eighty Reais and fifty centavos (BRL 8,043,222,080.50), divided into seven hundred and ninety-seven million, two hundred and fifty-seven thousand, six hundred and four (797,257,604) shares - of which four hundred and fifty-one million, six hundred and sixty-eight thousand, six hundred and fifty-two (451,668,652) are common shares; three hundred and forty-five million, ten thousand, six hundred and twenty-two (345,010,622) are class "A" preferred shares; and five hundred and seventy-eight thousand, three hundred and thirty (578,330) are class "B" preferred shares - to eight billion, forty-three million, two hundred and twenty-two thousand, eighty Reais and fifty centavos (BRL 8,043,222,080.50), divided into seven hundred and ninety-seven million, two hundred and eighteen thousand, six hundred and four (797,218,604) shares - of which four hundred and fifty-one million, six hundred and sixty-eight thousand, six hundred and fifty-two (451,668,652) are common shares; three hundred and forty-five million, forty-nine thousand, six hundred and twenty-two (345,049,622) are class "A" preferred shares; and five hundred thousand, three hundred and thirty (500,330) are class "B" preferred shares.

The origin and justification of the proposed amendment, its legal and economic effects, as well as the version of Article 4 of the Company's Bylaws marked with the proposed amendments, pursuant to article 11, items “I” and “II” of CVM Ruling 481, are included in Exhibit VII of this Proposal. In addition, a copy of the Bylaws containing the highlighted amendments can be found in Exhibit VIII of this Proposal.

**8. *Resolve on the inclusion of paragraphs 1, 2 and 3 in article 18 of the Company's Bylaws, to provide for a minimum percentage of 20% of independent members of the Board of Directors***

The Company's management proposes to resolve on the inclusion of paragraphs 1, 2 and 3 in article 18 of the Company's Bylaws, in order to provide for a minimum percentage of 20% of independent members of the Board of Directors.

The origin and justification of the proposed amendment, its legal and economic effects, pursuant to article 11, items “I” and “II” of CVM Ruling 481, are included in Exhibit VII of this Proposal. In addition, a copy of the Bylaws containing the highlighted amendments can be found in Exhibit VIII of this Proposal.

**9. *Resolve on the amendment to the Bylaws for the inclusion of a Compliance chapter, providing for the creation of a Bylaws Compliance Committee and the formalization of the existence of a compliance department in the Company***

The Company's management proposes to resolve on the inclusion of a Compliance chapter in its Bylaws, providing for the creation of a permanent Compliance Committee composed of at least three (3) independent members of the Board of Directors, appointed by the Board itself, in accordance with the internal regulations to be created in due course.

Accordingly, the Company's intends to formalize the existence of a department dedicated to compliance activities in the Company, led by a member of the senior management. Said member shall report directly to the Compliance Committee, not being subordinated to or bound to any other area and/or to any other officer, and who shall be ensured the powers necessary to make sure that their duties are performed independently.

The origin and justification of the proposed amendment, its legal and economic effects, pursuant to article 11, items “I” and “II” of CVM Ruling 481, are included in Exhibit VII of this Proposal. In addition, a copy of the Bylaws containing the highlighted amendments can be found in Exhibit VIII of this Proposal.

**III. *Shareholders’ Representation***

Shareholders may participate in the Meeting in person or by an attorney-in-fact duly appointed, or through remote voting bulletin ("Bulletin"), and the detailed guidelines regarding the necessary documentation are set forth in the Bulletin template included in Exhibit IX to this Proposal. We describe below additional information on the participation in the Meeting:

(a) In person or by Physical Proxy: with a view to expediting the works of the Meeting, the Company's Management requests that the Shareholders file with the Company, 72 hours prior to the date scheduled for the Meeting, the following documents: (i) evidence issued by the financial institution depositary of the book-entry shares held thereby, proving ownership of the shares within 8 days from the Meeting; (ii) proxy, duly compliant with the law, in case of representation of the shareholder, with grantor's signature certified by a notary public, notarization, consularization or apostille annotation (as the case may be) and sworn translation, together with the articles of incorporation, bylaws or articles of association, minutes of the Board of Directors' election (if any) and minutes of the Executive Board election if the shareholder is a legal entity; and/or (iii) with respect to shareholders participating in the fungible custody of registered shares, a statement with the respective equity interest, issued by the competent body. Shareholders or their legal representatives shall attend the Meeting in possession of the proper identification documents. However, it is worth stressing that, under paragraph 2 of article 5 of CVM Normative Ruling 481, the shareholder that attends the Meeting with the required documents may participate and vote, even if he/she has not delivered them in advance, as requested by the Company. The Company shall not accept powers of attorney granted by shareholders through electronic means.

(b) Remote Voting Bulletin: the Company shall adopt the remote voting system under the terms of CVM Normative Ruling No. 481, thus allowing its Shareholders to send their votes pursuant to Exhibit IX to this Proposal: (i) through their respective custody agents; (ii) through the registrar of the Company's shares (Itaú Corretora de Valores S.A.); or (iii) directly to the Company, as per the guidelines contained in the Bulletin and in item 12.2 of the Reference Form.

The Bulletin included in Exhibit IX hereto presents the matters comprising the Meeting's agenda, described in items 1 to 9 of this Proposal. The shareholders who choose to cast their votes remotely at the Meeting shall fill out the Bulletin made available by the Company, stating if they wish to approve, reject or abstain from voting on the resolutions described in the Bulletin, in compliance with the procedures described above.

Finally, all the exhibits are detailed in this Proposal in accordance with the laws and regulations.

**The Management**

***

**BRASKEM S.A.**

**C.N.P.J. No. 42.150.391/0001-70**

**N.I.R.E. 29300006939**

*A Publicly-Held Company*

**EXHIBIT I**

**MANAGEMENT PROPOSAL**

**FOR THE ORDINARY AND EXTRAORDINARY GENERAL MEETING OF BRASKEM S.A.**

**TO BE HELD ON APRIL 30, 2018**

***Comments by the Company's Managers, pursuant to item 10 of the Reference Form.***

## 10. Officers comments

### 10.1 General financial and equity conditions

### (a) Officers' comments on the general financial and equity conditions

The Officers understand that the Company presents financial and equity conditions that are compatible with its area of operation and are enough to implement its strategic goal of meeting the needs of its Clients in the value chain of the chemical, petrochemical and plastic industry in Brazil and in the world, maximizing the value for its shareholders.

Regarding the equity conditions of the Company, on December 31, 2017, the consolidated shareholders' equity attributable to the Company's[1] shareholders was of BRL 6,518 million, compared to BRL 2,739 million on December 31, 2016, and BRL 1,630 million on December 31, 2015. For further information, see item 10.1 (h) of this proposal.

The return on equity, expressed by the net earnings on the shareholders' equity, in the fiscal years ended on December 31, 2016, 2015 and 2014 were, respectively, of 0.63%, (0.15%) and 1.84%.

On December 31, 2017, the Company's net indebtedness (USD 6,031 million/BRL 19,951 million) was reduced by 2% in comparison to the indebtedness on December 31, 2016 (USD 6,139 million/BRL 20,007 million), which, in turn, was 13% higher than the net indebtedness presented on December 31, 2015 (USD 5,409 million/BRL 21,122 million).

The Company's financial leverage, measured by the ratio net debt/EBITDA, in the last three fiscal years, when measured in Dollars, was respectively of 1.91x, 1.95x and 1.91, a 2%-reduction compared to December 31, 2016, which presented a 2%-increase compared to December 31, 2015, due to the Leniency Agreement provision. For further information, see item 10.1 (h) of this proposal.



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1 Ignoring (non-controlling shareholder) Idesa S.A.P.I's equity interest in the controlled company Companhia Idesa S.A.P.I..

In the fiscal year ended on December 31, 2017, the Company registered a record EBITDA of USD 3,872 million (BRL 12,334 million), in comparison with USD 3,304 million (BRL 11,507 million) in the fiscal year ended on December 31, 2016, and USD 2,797 million (BRL 9,335 million) in the fiscal year ended on December 31, 2015. For further information, see item 10.2 (b) of this proposal.

Based on the information above, the reduction of the net indebtedness in the last three fiscal years was explained by the strong cash generation by the operating activities in the period.

Due to this strong cash generation and to the commitment to financial soundness, the Company's liquidity indicators improved in the last three fiscal years, as presented in the table below:

| | **Fiscal year ended on December 31** | | |
|---|---|---|---|
| | **2017** | **2016** | **2015** |
| **Net Liquidity (x)** [(1)] | 0.94 | 0.71 | **1.03** |
| **General Liquidity (x)** [(2)] | 1.13 | 1.03 | **1.02** |
| **Leverage (x)** [(3)] | 1.91 | 1.95 | **1.91** |

Current Liquidity = Current Assets / Current Liabilities

[2] General Liquidity = (Current Assets + Non-Current Assets) / (Current Liabilities + Non-Current Liabilities)

[3]Leverage = [(Gross Debt + Derivatives + Leniency Agreement) – Cash]/ EBITDA – Does not consider Braskem Idesa's (controlled company) net debt and EBITDA. Sums in USD - Does not consider Braskem Idesa's net debt, cash and EBITDA. The cash balance and investments exclude USD 133 million of financial investments used as collateral for Company's obligation related to the creation of a reserve account for the project finance of the controlled company Braskem Idesa and considers the financial investments in government bonds kept for trade referring to Treasury Bills ("LFTs") issued by the Brazilian federal government. These bonds' maturity exceeds three months, have immediate liquidity and have a short-term realization expectation.

**(b) Officers' comments on the capital structure**

The officers indicate, in the table below, the Company's capital structure evolution in relation to the last three fiscal years:

| | **Fiscal year ended on December 31** | | |
|---|---|---|---|
| **Capital Structure** | **12/31/2017** | **12/31/2016** | **12/31/2015** |

| | Millions of BRL | % | Millions of BRL | % | Millions of BRL | % |
|---|---|---|---|---|---|---|
| **Net equity** | 6,005 | 11% | 1,721 | 3% | 945. | 2% |
| **Third-Party Capital** | 47,707 | 89% | 50,101 | 97% | 59,681 | 98% |

The third-party capital is mainly formed as follows:

| **Third-Party Capital** | **12/31/2017** | | **12/31/2016** | | **12/31/2015** | |
|---|---|---|---|---|---|---|
| | **Millions of BRL** | **%** | **Millions of BRL** | **%** | **Millions of BRL** | **%** |
| **Financing** | 26,675 | 50 | 23,331 | 47 | 27,351. | 46. |
| ***Stock Market*** | 20,150 | 42 | 14,029 | 28 | 16,787 | 28 |
| ***National Government Officials*** | 716 | 2 | 3,245 | 6 | 4,102 | 7 |
| ***Foreign Public Officials*** | 742 | 2 | 380 | 1 | 528 | 1 |
| ***Structured Operations*** | 735 | 2 | 2,389 | 5 | 2,338 | 4 |
| ***Working Capital*** | 1,332 | 3 | 3,288 | 7 | 3,596 | 6 |
| **Transactions with derivatives** | 7 | 0 | 890 | 2 | 1,178 | 2 |
| **Project Finance Braskem Idesa** | 9,691 | 20 | 10,438 | 21 | 12,277 | 21 |
| **Leniency Agreement** | 1,629 | 3 | 2,853 | 6 | - | - |
| **Suppliers** | 5,525 | 12 | 6,747 | 13 | 12,418 | 21 |
| **Loan from non-controlling shareholder at BraskemIdesa** | 1,757 | 4 | 1,621 | 3 | 1,539 | 3 |
| **Other** | 5,423 | 11 | 4,221 | 8 | 4,906 | 8 |
| **Total** | **47,707** | **100** | **50,101** | **100** | **59,681** | **100** |

The Company seeks to diversify its financing sources by using funds from the stock market, government officials, working capital and other structured operations. The Company's financial strategy remains focused on raising funds on the stock market, keeping back credit lines available for working capital operations.

The reduction of the balance of government officials in the last three fiscal years is related to the latest operating policies for loans of the Brazilian Economic and Social Development Bank (BNDES), which reduced the bank's participation in the chemical industry's investment projects.

**(c) Officers' comments on the ability to pay financial commitments undertaken**

The Company's officers believe that the levels of financial leverage and liquidity are proper for the Company to fulfill its present and future obligations and to enjoy commercial opportunities as they appear, although the Company's officers cannot guarantee that this situation will remain the same.

The Company assumed commitments (raising funds from third parties[2]) in the fiscal year ended on December 31, 2017, in the total amount of BRL 8,492 million, compared to BRL 4,108 million raised in the fiscal year ended on December 31, 2016, and BRL 5,482 million raised in the fiscal year ended on December 31, 2015. The strategy of undertaking commitments has the purpose of stretching the debt profile. Considering the funds from third parties taken by the controlled company Braskem Idesa, the total amount of funds raised is of BRL 8,680 million in the fiscal year ended on December 31, 2017, BRL 4,612 million in the fiscal year ended on December 31, 2016, and BRL 6,983 million in the fiscal year ended on December 31, 2015.

In all three fiscal years, the Company tried to keep its level of liquidity elevated, reflecting its payment ability via operational cash flow generation and the maintenance of stand-by lines, thus ensuring the coverage of its obligations in 40 months on December 31, 2017.

The Company's ability to pay, however, may be affected by several risk factors.



2 This indicator does not consider the controlled company Braskem Idesa's debt, in the amount of USD 3.1 billion, because it is a project finance, and therefore must be exclusively repaid with the project's cash generation.

In short, it is possible to say that the Company's main cash needs comprise: (i) working capital needs; (ii) payment of debt service; (iii) capital investments related to investments in operations, modernization and strategic investments; and (iv) payment of dividends related to shares and/or interest on shareholders' equity. In order to meet these cash needs, the Company has been traditionally relying on the cash flow derived from its operating activities, with short and long-term loans and issuing bonds in the national and international stock markets.

On December 31, 2017, the Company maintained its investment grade ratings given by Standard & Poor's (BBB-) and Fitch Ratings (BBB-) and presented a credit risk that exceeded the sovereign risk by the three major risk credit rating agencies (S&P, Fitch and Moody's).

| **Agency/Year** | **2017** | **2016** | **2015** |
|---|---|---|---|
| **Fitch Ratings** | BBB- Stable | BBB- Stable | BBB- Negative |
| **Standard & Poor's** | BBB- Negative | BBB- Negative | BBB- Negative |
| **Moody's** | Ba1 Negative | Ba1 Negative | Baa3 Negative |

**(d) Sources of funds for working capital and capital expenditures used**

The Company used loans as sources of funds for working capital and capital expenditures, in addition to its own operating cash generation, as well as it issued non-convertible bonds to the stock market abroad. The operating activities generated a net cash of BRL 2,462 million in 2017, compared to BRL 4,458 million in 2016 and BRL 7,092 million and 2015.

The Company funds its working capital, whenever necessary, with export credit operations, in the types ACCs (Advances on Exchange Contracts) and PPEs (Export Pre-Payment), and *true sale*/assignment of receivable operations.

On December 31, 2017, there was no outstanding balance of ACC and PPE operations. On December 31, 2016, the Company registered approximately BRL 521 million in ACC and PPE operations, compared to BRL 254 million ACCs on December 31, 2015. Among the most relevant financial operations in the last three fiscal years to finance the working capital and the capital expenditures, we highlight:

- ♦ *Project Finance Mexico, Ethylene XXI:*

The investment accrued until the end of 2016 totaled USD 5.2 billion, of which (i) USD 3.2 billion of the debt came as *project finance* and (ii) USD 2 billion as shareholders' investment and subordinate loans.

- ♦ *Funds for current investments and other strategic projects:*

To fund investments in Brazil, the Company directly accesses government agencies, such as: BNDES, Banco do Nordeste do Brasil and FINEP, and indirectly, Brazilian Northeast Development Fund through transfers from Banco do Brasil.

In 2017, no such funds were released for the Company, and there has been a total expenditure of BRL 159 million in 2016 and BRL 421 million in 2015.[3]

- *Funds from the Banking Market:*

Between the fiscal years ended on December 31, 2014 and 2016, the Company borrowed BRL 11,361 million from the banking market in Brazil and abroad, using several credit types, which have been entirely received by the Company. On December 31, 2017, the outstanding principal of these operations was of BRL 2,046 million, compared to the outstanding BRL 5,960 million on December 31, 2016.

- *Funds from the Stock Market:*

In 2017, the Company made the largest issuance of bonds of its history, with the lowest cost, in the total amount of USD 1,750.0 million.

**(e) Sources of funds for working capital and capital expenditures that it intends to use as a means of covering liquidity shortfalls**

The officers believe they can cover occasional liquidity shortfalls of the Company with a combination of: (i) finds from the Company’s operations in general; (ii) funds from financing projects, including new actions to raise money and refinancing the already-existing debt; and (iii) funds derived from the reduction of the operational cycle and consequent reduction of the need for working capital funds.

The Company funds its working capital, whenever necessary, with export credit operations, in the types ACCs (Advances on Exchange Contracts) and short-term PPEs (Export Pre-Payment), and *true sale*/assignment of receivable operations.

The export credit lines, types ACC and PPE, are loans granted to exporting companies with very competitive costs. The *true sale* /assignment of receivable operations represent the discount of clients’ receivables, without right to recourse against the Company.

**(f) Indebtedness levels and the characteristics of such debts**

The table below shows the Company’s financial leverage evolution in the last 3 fiscal years, measured by the “Net Debt/EBITDA” indicator:

| | | | | | | |
|---|---|---|---|---|---|---|
| **Net Debt[(1)]** | 19,951 | 6,031 | 20,007 | 6,139 | 21,122 | 5,409 |
| **EBITDA LTM** | 10,045 | 3,153 | 11,022 | 3,155 | 9,433 | 2,826 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Leverage (x)** | 1.99 | 1.91 | 1.82 | 1.95 | 2.24 | 1.91 |

(1)Net Indebtedness = Short-Term Loans + Long-Term Loans + Derivatives + Leniency Agreement – Cash and Cash Equivalents. This indicator does not consider the controlled company Braskem Idesa's debt, in the amount of USD 3.1 billion, because it is a project finance, and therefore must be exclusively repaid with the project's cash generation. Accordingly, Mexico's cash and EBITDA are not considered. The cash balance and investments exclude USD 133 million of financial investments used as collateral for Company's obligation related to the creation of a reserve account for the project finance of the controlled company Braskem Idesa and considers the financial investments in government bonds kept for trade referring to Treasury Bills ("LFTs") issued by the Brazilian federal government. These bonds' maturity exceeds three months, have immediate liquidity and have a short-term realization expectation.



3 These sums do not include capitalized interests.

The Company's indebtedness profile can be summarized by the table below[2], which does not consider the controlled company Braskem Idesa's debt, in the amount of USD 2.9 billion , because it is a project finance, and therefore must be exclusively repaid with the project's cash generation:

| | | | |
|---|---|---|---|
| **Short-Term Debts** | 1,212 | 2,594 | 1,970 |
| **Long-Term Debts** | 22,463 | 20,737 | 25,381 |
| **Debts in Reais** | 6% | 21% | 21% |
| **Debts subject to dollar exchange variation** | 94% | 79% | 79% |
| **Debts subject to other currencies exchange variation** | 0 | 0% | 0% |
| **Unsecured Debts** | 96% | 86% | 85% |
| **Asset-Backed Debts** | 3% | 12% | 14% |
| **Debts covered by other types of guarantees** | 1% | 1% | 1% |

The Company's amortization schedule can be summarized by the table below, which does not consider the controlled company Braskem Idesa's debts, as explained above:

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Brazilian Currency (1)** | 229 | 369 | 352 | 291 | 204 | 93 | 2 |
| **Foreign Currency (1)** | 1,031 | 949 | 1,935 | 3,453 | 3,473 | 2,580 | 9,006 |

(1) Does not consider transaction costs

It is worth mentioning that a large portion of the funds in Brazilian currency were borrowed from funding financial institutions, which offer more competitive conditions compared to the private banking market.

The Company's financing strategy is focused on stretching the medium-term maturity of its debt, including with the amortization of short-term debts with long-term loans and, mainly, with the issuance of long-term bonds in the stock market. The financing strategy for the next years predicts the maintenance of liquidity and a debt maturity profile that is compatible with the expected generation of cash flow. Furthermore, the officers believe that the capital expenditures will not have a negative impact on the quality of the indebtedness levels or on the disciplined approach to the capital allocation.

## (i) Material loan and financing agreements

The Company's officers describe below (i) the main conditions, guarantees and restrictive clauses related to loan and financing agreements they deem material, (ii) other long-term relationships with financial institutions, (iii) the degree of subordination among the debts, and (iv) occasional restrictions imposed on the issuer.

**COMPANY**

*Fixed-rate Notes*

| Date of Issue/ Date of the Agreement | Amount issued (Million USD) | Maturity Date | Interest | | | Debt Balance Principal and Interest On 12/31/2017 | |
|---|---|---|---|---|---|---|---|
| | | | **Index** | **Spread (% p.a.)** | **Payment Frequency** | **Amount (Million USD)** | **Amount (BRL million)** |
| Jun-08 | 500 | Jun-18 | Pre | 7.250% | Twice a year | 133 | 440 |
| May-10 | 750 | May-20 | Pre | 7.000% | Twice a year | 402 | 1,329 |
| Apr-11 | 1,000 | Apr-21 | Pre | 5.750% | Twice a year | 1,009 | 3,339 |
| Jul-11 | 750 | Jul-41 | Pre | 7.125% | Twice a year | 773 | 2,559 |
| May-12 | 500 | May-22 | Pre | 5.375% | Twice a year | 504 | 1,668 |
| Feb-14 | 750 | Feb-24 | Pre | 6.450% | Twice a year | 770 | 2,547 |
| Oct-17 | 500 | Jan-23 | Pre | 3.500% | Twice a year | 504 | 1,667 |
| Oct-17 | 1.250 | Jan-28 | Pre | 4.500% | Twice a year | 1,263 | 4,177 |

*Perpetual Bonds*

| Date of Issue | Amount (Million USD) | Maturity Date | Interest | | | Debt Balance Principal and Interest On 12/31/2017 | |
|---|---|---|---|---|---|---|---|
| | | | **Index** | **Spread (% p.a.)** | **Payment** | **Amount (Million USD)** | **Amount (BRL million)** |
| Oct-10 | 700 | Oct-15 | Pre | 7.375% | Quarterly | 712 | 2,356 |

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*Credit Lines for Export Pre-Payment*

| Date of the Agreement | Amount (Million USD) | Maturity Date | Interest | | | Repayment of Principal | Debt Balance Principal and Interest On 12/31/2017 | |
|---|---|---|---|---|---|---|---|---|
| | | | Index | Spread (% p.a.) | Payment | | Million US$ | Millions of BRL |
| Jan/13 | 200 | Nov/22 | LIBOR | 1.10% | Twice a year | Twice a year (1) | 100.0 | 330.8 |
| May/16 | 50 | May/17 | LIBOR | 3.25% | Bullet | Bullet | 50 | 164 |
| Dec/16 | 68 | Nov/19 | LIBOR | 2.60% | Twice a year | Maturity Date | 68 | 222 |

(1) Amortization began in May/13

*Lines of export credit bills*

| Date of the Agreement | Operation Currency | Amount (Operation Currency) Millions | Maturity Date | Interest | | | Repayment of Principal | Debt Princi Int |
|---|---|---|---|---|---|---|---|---|
| | | | | Index | Spread (% p.a.) | Payment | | On 12/ (Transac Curren Millio |
| Feb/06 - Jan/08 | USD | 353 | Mar/18 - Feb/20 | PRE | 7.3% - 8.1% | Twice a year | Maturity Date | 360 |
| June/10 | BRL | 146 | Oct/21 | % CDI (Interbank Deposit Certificate) | 105% | Twice a year | Yearly | 147 |
| Feb/11 - Aug/11 | BRL | 1,074 | Apr/19 - Aug/19 | CDI | 105% - 112.5% | Quarterly – Twice a year | Yearly (1) - Maturity Date | 1074 |
| Sep/12 | BRL | 220 | Oct/21 | CDI | 105.5% | Twice a year | Yearly (1) | 220 |
| Sep/17 | USD | 135 | Mar/2027 | LIBOR | 1.61% | Twice a year | Twice a year (2) | 135 |

(1) - New agreement on the line in October/13 to extend the maturity date from February/14 to October/21.

(2) - The principal will begin to be repaid in September/2018.

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*Advancement of Exchange Agreement*

| Date of the Agreement | Operation Currency | Amount (Operation Currency) Millions | Maturity Date | Interest | | | Repayment of Principal | Debt Balance | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Principal and Interest on 12/31/2017 | |
| | | | | Index | Spread (% p.a.) | Payment | | (Transaction Currency) Million | BRL million |
| Oct/16 | USD | 80 | Sep/17 | PRE | 3.28% | Maturity Date | Maturity Date | 81 | 263 |

*Credit Facility Agreements*

| **Date of the Agreement** | **Credit Limit (BRL million)** | **Maturity Date** | **Interest** | | | **Repayment of Principal** | **Debt Balance on 12/31/2017 Millions of BRL** |
|---|---|---|---|---|---|---|---|
| | | | **Index** | **Spread (% p.a.)** | **Payment** | | |
| Dec/09 | 500 | Jan/21 | Pre | 4% - 4.5% | Monthly | Monthly | 56.9 |
| | | Dec/21 | TJLP | 0% - 3.58% | Monthly | Monthly | 31.3 |
| Nov/11 | 2,640 | Dec/21 | Pre | 3.5% - 7% | Monthly | Monthly | 75.0 |

The agreements listed above were signed to fund mainly (i) modernization projects of the Company's industrial plants in Brazil; (ii) health, safety and environment projects; and (iii) innovation and technology projects.

***BRASKEM IDESA - Project Finance***

| **Date of the Agreement** | **Amount (Million USD)** | **Maturity Date** | **Interest** | | | **Repayment of Principal** | **Debt Balance** | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | **Principal + Interest** | |
| | | | | | | | **On 12/31/2017** | |
| | | | **Index** | **Spread (% p.a.)** | **Payment** | | **Million US$** | **Millions of BRL** |
| July/13 - Sep/15 | 3,193.1 | Feb-19 | PRE | 4.33% - 6.17% | Quarterly | Quarterly | 735.9 | 2,434.3 |
| | | | Libor | 2.73% - 4.65% | Quarterly | Quarterly | 2,202.8 | 7,286.8 |

**(ii) Other long-term relations with financial institutions**

Except for the relations derived from loan and financing agreements, whose more relevant items were described in item 10.1.f(i) above, the Company has no other long-term relation with financial institutions.

**Subordination level between the Company's debts**

| | | Fiscal Year (12/31/2017) | | | | |
|---|---|---|---|---|---|---|
| **Type of obligation** | **Type of Collateral** | **Less than one year** | **One to three years** | **Three to five years** | **Longer than five years** | **Total** |
| **Loan** | **Security Interest** | 336.42 | 283.76 | 34.31 | | 654.49 |
| **Financing** | **Security Interest** | 129,706.85 | 191,771.61 | 68,549.71 | - | 390,028.17 |
| **Bonds** | **Security Interest** | 27,461.01 | 70,619.80 | 99,096.13 | 117,713.85 | 314,890.78 |
| **Loan** | **Unsecured guarantees** | 195,151.05 | 1,693,560.75 | 182,509.89 | | 2,071,221.69 |
| **Financing** | **Unsecured guarantees** | 101,670.79 | 243,433.28 | 243,402.38 | 241,600.62 | 830,107.07 |
| **Bonds** | **Unsecured guarantees** | 746,741.67 | 1,315,515.52 | 4,953,730.00 | 13,066,600.00 | 20,082,587.18 |
| **Financing** | **Another type of guarantee or privilege** | 58,313.81 | 89,299.82 | 84,303.92 | 45,491.45 | 277,409.01 |
| **Total** | | 1,259,381.60 | 3,604,484.53 | 5,631,626.33 | 13,471,405.92 | 23,966,898.39 |

**Another type of guarantees or privileges**

Bank guarantee

**Note**

The information above refer to the Company's [individual/consolidated] financial statements. It does not consider Braskem Idesa' project finance. Amounts in thousands of BRL

For the purpose of raking the credit, the Company's debts are not guaranteed, except the debts before BNDES, BNB and FINEP, which are asset-backed and covered by bank-issued guarantees, which gives them preference in payment over the unsecured debts, as per Law No. 11,101, of February 9, 2005. From the contractual point of view, there is no subordination between debts, so the payment of each one of them must respect the maturity date set in each contract, regardless of the payment of the other debts.

| | 12/31/2017 | 12/31/2016 | 12/31/2015 |
|---|---|---|---|
| | | (Millions of BRL) | |
| **Current and Non-Current Liabilities** | 47,651 | 50,631 | 59,681 |
| | 6,158 | 2,739 | 1,630 |

| | | | |
|---|---|---|---|
| **Shareholders' Equity Attributable to Shareholders** | | | |
| **Indebtedness Index** | 7.3 | 18.3 | 36.6 |

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We stress that the Company paid approximately BRL 1.6 billion of its debt with BNDES in November 2017. This means that a relevant portion of the asset-backed indebtedness (mortgages) was released. Therefore, there has been an improvement in the Company's credit rating due to the reduction of the subordination degree between its debts.

**(iii) Restrictions imposed on the Company, especially with regard to indebtedness ratios and limits on new indebtedness, distribution of dividends, divestiture, issuance of new securities, and disposal of ownership control**

The Company is no longer a party to financing agreements that set restrictions to limits for certain indicators related to the indebtedness capacity and to the payment of interest. However, some of the financing agreements signed by the Company provide for other obligations that restrict, among other things, the Company and its subsidiaries' ability to assume guarantees or undergo merger or consolidation processes with other entities, change its controlling interest, and otherwise sell its assets. The agreed restrictions, when not formally waived by the creditors, do not cause the acceleration of the financing agreements signed by the Company.

**(g) Limits of the contracted funding and percentages already used**

All credit limits hired by the Company have been entirely used, except for the stand-by credit line in the amount of USD 750 million, to become mature in 2019.

### (h) Material changes in each item of the financial statements

**EQUITY ACCOUNTS**

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*<u>Comparison between the main variations in equity accounts in the years ended on December 31, 2017 and December 31, 2016</u>*

**<u>Current Assets</u>**

The balance of Current Assets in the fiscal year ended on December 31, 2017 was of BRL 17,992 million, representing 34% of the Total Assets. In the previous fiscal year, the balance was of BRL 16,426 million, representing 31% of the Total Assets.

The main variations in Current Assets are detailed below:

- ♦ impact on “Cash and Cash Equivalents” mainly related to the payment of dividends, purchase of equity interest in Cetrel and payment of the Leniency Agreement;
- ♦ increase of “Financial Investments” due to investments, net of redemptions, of the Treasury Bills and Bills (Accompanying Note 7 of the 2017 Financial Statements);
- ♦ impact on the “Accounts Receivable from clients” due to the increase in the income and reduction of the true sale volume; and
- ♦ impact on “Inventories” caused mainly due to the increase of the production in approximately BRL 800 million and advance to purchase ethanol.

**<u>Non-Current Assets</u>**

The balance of Non-Current Assets in the fiscal year ended on December 31, 2017 was of BRL 35,349 million, compared to the BRL 35,566 million in the previous year. The balance of the Company’s Fixed Assets represented 56% of the Total Assets in the fiscal years of 2017 and 2016.

The main variation was in “Deferred income tax and social contribution”, which contemplates the realization of income tax and social contribution credits (tax loss and negative base of calculation), and credits on temporary provisions being written-off.

In relation to the Total Assets, the Non-Current Assets (excluding Non-Current Assets kept for sale) represented, in the fiscal years of 2017 and 2016, 66% and 68% respectively.

**<u>Current Liabilities</u>**

The balance of Current Liabilities in the fiscal year ended on December 31, 2017 was of BRL 19,138 million, representing 36% of the Total Liabilities, and in the previous fiscal year, it was of BRL 23,743 million, representing 45% of the Total Liabilities.

The main variations in Current Assets are detailed below:

§ reduction in “Financing” due to early payments with funds from Bonds (Accompanying Note 15(c) of the 2017 Financial Statements); and

§ “Leniency Agreement Provision”: it refers to the agreement signed by the Company and the Federal Public Prosecutor’s Office in Brazil, with the Department of Justice - DOJ and with the

U.S. Securities Exchange Commission-SEC and with the Prosecutor's Office of Switzerland in December 2016. The sum paid in 2017 under the agreement was of approximately BRL 1,344 million (Accompanying Note 23.3 (a) of the 2017 Financial Statements).

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**Non-Current Liabilities**

The balance of Non-Current Liabilities in the fiscal year ended on December 31, 2017 was of BRL 28,513 million, and in the previous fiscal year, it was of BRL 27,063 million. In relation to the Total Assets, the Non-Current Assets represented, in the fiscal years of 2017 and 2016, 53% and 52% respectively.

Among the main variations, we highlight:

- increase in “Financing” mainly due to the funds from Bonds (Accompanying Note 15(c) of the 2017 Financial Statements);
- “Transactions with derivatives”: settlement of exchange swaps related to NCE due to the acceleration of the original loan (Accompanying Note 19.3.1(a.ii) of the 2017 Financial Statements) and;
- Transfer to Current Liabilities of the balance of “Deferred revenue from customers” received by the controlled company Braskem Holanda in 2016.

**Shareholders’ equity**

On December 31, 2017, the balance of the Shareholders’ Equity was of BRL 5,690 million, compared to BRL 1,721 million in the same period of the previous year.

The main variations derive from:

- "Appropriated Retained Earnings": the increase was mainly caused by the proposal to allocate the additional dividends, in the amount of BRL 1,500 million, and retain reserves in the amount of BRL 1.6 billion (Accompanying Note 25(e.1) of the 2017 Financial Statements); and
- "Equity Valuation Adjustments": the reduction is mainly caused by the realization of the discontinued value of *swaps* designated to *hedge accounting*, recognized in the financial result in the approximate amount of BRL 475 million (Accompanying Note 19.3.1(a.ii) of the 2017 Financial Statements).

*Comparison between the main variations in equity accounts in the years ended on December 31, 2016 and December 31, 2015.*

**Current Assets**

The balance of Current Assets in the fiscal year ended on December 31, 2016 was of BRL 16,426 million, representing 31% of the Total Assets. In the previous fiscal year, the balance was of BRL 18,140 million, representing 30% of the Total Assets.

The main variations in Current Assets are detailed below:

- increase of "Financial Investments" due to a guarantee to cover an obligation assumed by the controlled company Braskem Idesa (Accompanying Note 7 of the 2016 Financial Statements);
- impact on the "Accounts Receivable from Clients" due to the reduction of the average term of income, as well as the reduction of defaults, both in the internal and external markets;
- reduction of "Taxes to Recover" mainly caused by the offsetting of the entire balance of PIS and COFINS (social contributions) and by the reduction of REINTEGRA's tax rate (0.1% in 2016, and 3% in 2015 - Accompanying Note 11(c) of the 2016 Financial Statements), in contrast with the increase derived from income tax and social contribution on income; and
- reduction in "Other Assets" mainly caused by the receipt of Debt Notes from Petrobras, in the amount of BRL 87 million.

**Non-Current Assets**

The balance of Non-Current Assets in the fiscal year ended on December 31, 2016 was of BRL 35,566 million, compared to the BRL 42,487 million in the previous year. The drop of BRL 6,922 million is mainly derived from the BRL 1,551.5 million reduction due to tax exchange realizations in 2016, having an impact on the deferred income tax and social contribution, and to the devaluation of the Mexican peso in comparison with Real during the fiscal year of 2016, with a material impact on the Fixed Assets balance caused by the controlled company Braskem Idesa, whose operating currency is the Mexican Peso. The balance of the Company's Fixed Assets represented 56% of the Total Assets in the fiscal years of 2016 and 2015.

Other variations were:

- "Advances to Suppliers": it contemplates a long-term portion of advances to electricity suppliers, which is being refunded through the reduction of the tariff in the period from January 1, 2016 to January 31, 2022; and
- "Credits with related companies": the reduction derives from the provision for the loss of all credits with Petrobras, registered in December 2016, in the amount of BRL 163 million.

In relation to the Total Assets, the Non-Current Assets represented, in the fiscal years of 2016 and 2015, 68% and 70% respectively.

**Current Liabilities**

The balance of Current Liabilities in the fiscal year ended on December 31, 2016 was of BRL 23,473 million, representing 46% of the Total Liabilities, and in the previous fiscal year, it was of BRL 17,643 million, representing 29% of the Total Liabilities.

The main variations in Current Assets are detailed below:

- "Suppliers": material drop caused by the Dollar variation, since this currency lost 17% of its value in 2016 in comparison with Real, causing a 47%-reduction of the balance in contrast with the same period of the previous year, mainly because 68% of this balance is expressed in Dollars;
- "Braskem Idesa Financing": increase of the balance, mainly caused by the reclassification of financial obligations with original long-term maturity dates;
- "Taxes Payable": reduction caused mainly by the tax impacts on the payments recognized without its consideration (Accompanying Note 2.4 of the 2016 Financial Statements);
- "Dividends": pad to shareholders in April 2016, in the amount of BRL 1,000 million, of which BRL 753 million had been reported in 2015, and BRL 247 million had been approved by the shareholders in a Shareholders' Meeting held in April 2016; and

- "Leniency Agreement Provision": it refers to the agreement signed by the Company and the Federal Public Prosecutor's Office in Brazil, with the Department of Justice - DOJ and with the U.S. Securities Exchange Commission-SEC and with the Prosecutor's Office of Switzerland in December 2016 (Accompanying Note 23.3(d) of the 2016 Financial Statements). On December 31, 2016, the provision for the Leniency Agreement in the Current Liabilities was of BRL 1,354.5 million, represented by 47.4% of the total provision for the Leniency Agreement.

**Non-Current Liabilities**

The balance of Non-Current Liabilities in the fiscal year ended on December 31, 2016 was of BRL 27,063 million, and in the previous fiscal year, it was of BRL 42,038 million. In relation to the Total Liabilities, the Non-Current Liabilities represented, in the fiscal years of 2016 and 2015, 53% and 70%, respectively.

Among the main variations, we highlight:

- reduction of “Financing”, mainly related to the Dollar devaluation in comparison with Real, as described before, since 78% of this balance is expressed in said currency;
- zero balance of “Braskem Idesa’s Financing” due to the transfer to Current Liabilities;
- increase in “Deferred revenue from customers” mainly due to the advance received by the controlled company Braskem Holanda in September 2016 (Accompanying Note 21 of the 2016 Financial Statements);
- increase of “Contingencies”, mainly due to the provision for legal proceedings with a remote chance of loss in the labor, tax, and corporate areas of the Law (Accompanying Note 23.1 of the 2016 Financial Statements); and
- “Leniency Agreement”: as mentioned before, it refers to the agreement signed by the Company and the Federal Public Prosecutor’s Office in Brazil, with the DOJ and with U.S. SEC and with the Prosecutor’s Office of Switzerland in December 2016 (Accompanying Note 23.3(d) of the 2016 Financial Statements). On December 31, 2016, the provision for the Leniency Agreement in the Non-Current Liabilities was of BRL 1,499 million, representing 52.5% of the total provision for the Leniency Agreement.

**Shareholders’ Equity**

On December 31, 2016, the Shareholders’ Equity was of BRL 1,721 million, compared to BRL 945 million in the same period of the previous year.

The main variations derive from:

“Appropriated Retained Earnings”: the reduction was mainly caused by the payment of interim dividends approved by the Board of Directors in September 2016, in the amount of BRL 1,000 million, and by the adjustments derived from the new delivery of the 2015 Financial Statements due to payments without the relevant consideration of services and the consequent tax impacts (Accompanying Note 2.4 of the 2016 Financial Statements);

“Equity Valuation Adjustments”: the reduction is a consequence of the Dollar devaluation before Real in 2016, considering that this item is expressed in such currency due to the hedge accounting of the Company’s future exports, and the hedge accounting of Braskem Idesa’s sales, whose hedge instruments are expressed in Dollar; and

“Retained Losses”: the main variation is the loss in the fiscal year of 2016, in the amount of BRL 729 million.

**INCOME STATEMENT**

**The main variations in the operating results of the last three fiscal years are explained in item 10.2 (b) below.**

**10.2. Operating and Financial Result**
**a) Results from the Company's transactions**

**(i) Description of any important revenue components**

The information in this item is presented in item 10.2 (b) below.

**(ii) Factors that materially affected operating results**

***Growth of Brazil's GDP and Domestic Demand for The Company's Products***

The Company's sales in Brazil represented 53.1% of its net sales revenue in the year ended December 31, 2017. Thus, the Company is significantly affected by economic conditions in Brazil. The Company's results of operations and financial condition have been, and will continue to be, affected by the growth rate of Brazilian GDP because its products are used in the manufacture of a wide range of consumer and industrial products.

The following table sets forth the growth rates of Brazilian GDP and domestic apparent consumption for polyethylene, polypropylene and PVC for the periods presented.

| | **2017** | **2016** | **2015** | **2014** | **2013** |
|---|---|---|---|---|---|
| Brazilian GDP........................................ | 1.0% | (3.6)% | (3.8)% | 0.1% | 3.0% |
| Brazilian consumption of polyethylene... | 4.8% | (1.3)% | (3.2)% | 0.6% | 8.0% |
| Brazilian consumption of polypropylene. | 5.9% | 1.1% | (8.3)% | (2.6)% | 4.6% |
| Brazilian consumption of PVC................ | (-1.9%) | (2.3)% | (16.0)% | (2.3)% | 12.5% |

*Source:* Brazilian government and Tendencias Consultoria.

Brazilian GDP growth has fluctuated significantly, and the Company anticipates that it will likely continue to do so. The Company's management believes that economic growth in Brazil should positively affect its future net sales revenue and results of operations. However, continued recession or low growth in Brazil would likely reduce its future net sales revenue and have a negative effect on its results of operations.

In 2015, Brazil was affected by the continued political crisis, lower-than-expected GDP growth in China (6.9%, the lowest in 25 years), declines in international commodity prices and weakening currencies in emerging economies, led by the *real*. Key sectors in the Brazilian economy, such as services, construction and infrastructure, experienced a slowdown which affected the labor market by reducing income levels and consequently household spending and investment. According to the IBGE, Brazil's GDP contracted 3.8% in 2015. As a result, Brazilian consumption volumes of thermoplastic resins declined by 3.2% for polypropylene, 3.8% for polyethylene and 16.0% for PVC.

In 2016, indicators for economic growth in Brazil were weaker than expected, with negative GDP growth for the year, primarily due to lower borrowing as a result of higher levels of debt held by households and businesses. These factors, combined with the persistent bottlenecks contributing to Brazil cost and the prolonged political and institutional crisis, affected the country's economy, which resulted inlower demand for resins in the Brazilian market. As a result, Brazilian consumption volumes of thermoplastic resins declined by 2.3% for PVC and 1.3% for polyethylene.

In 2017 Brazilian economic indicators showed signs of a slow recovery. As a result, Brazilian consumption volumes of thermoplastic resins increased by 5.9% for polypropylene and 4.8% for polyethylene. PVC remained vulnerable to the effects of the contraction of the civil construction sector and consumption volumes declined by 1.9%.

***Brazil's Macroeconomic Environment***

The following table shows data inflation, interest rates and the U.S. dollar exchange rate for and as of the periods indicated.

| | December 31, | | | | |
|---|---|---|---|---|---|
| | **2017** | **2016** | **2015** | **2014** | **2013** |
| GDPgrowth / Reduction (1)............................ | 1.0% | (3.6)% | (3.8)% | 0.1% | 2.3% |
| Inflation (IGP-M)(1)...................................................... | (0.42%) | 7.2% | 10.5% | 3.7% | 5.5% |
| Inflation (IPCA)(2)......................................................... | 2,9% | 6.2% | 10.7% | 6.4% | 5.9% |
| CDI rate(3)............................................................................ | 6,99% | 13.6% | 14.1% | 11.6% | 9.8% |
| Appreciation (depreciation) of the *real* vs. U.S. dollar | 1.5% | 4.3% | 41.8% | 9.0% | 10.5% |
| Period-end exchange rate—US$1.00............... | R$3.308 | R$3.259 | R$3.905 | R$2.656 | R$2.343 |

Sources: Fundação Getúlio Vargas, the Central Bank and Bloomberg

(1) Brazilian GDP according to Sistema IBGE de Recuperação Automática–SIDRA.

(2) Inflation (IGP-M) is the general market price index measured by the Fundação Getúlio Vargas.

(2) Inflation (IPCA) is a broad consumer price index measured by the Instituto Brasileiro de Geografia e Estatística.

(3) The CDI rate is average of inter-bank overnight rates in Brazil (as of the last date of the respective period).

***Effects of Fluctuations in Exchange Rates between the* Real *and the U.S. Dollar***

The Company's results of operations and financial condition have been, and will continue to be, affected by the rate of depreciation or appreciation of the *real* against the U.S. dollar because:

- a substantial portion of the Company's net sales revenue is denominated in or linked to U.S. dollars;

- the Company's costs for some of its raw materials, principally naphtha and certain catalysts required in its production processes, are incurred in U.S. dollars or are linked to U.S. dollars;

- the Company have operating expenses, and make other expenditures, that are denominated in or linked to U.S. dollars; and

- the Company have significant amounts of U.S. dollar-denominated liabilities that require us to make principal and interest payments in U.S. dollars.

Virtually all of the Company's sales are of petrochemical products for which there are international market prices expressed in U.S. dollars. The Company generally attempts to set prices that take into account (1) the international market prices for its petrochemical products, and (2) in Brazil, variations in the *real*/U.S. dollar exchange rate. As a result, although a significant portion of its net sales revenue is denominated in *reais*, substantially all of its products are sold at prices that are based on international market prices that are quoted in U.S. dollars.

Fluctuations in the *real* will affect the cost of naphtha and other U.S. dollar-linked or imported raw materials. The price of naphtha, raw material, is linked to the U.S. dollar. The pricing formula included in the contract with Petrobras under which the Company purchases naphtha for its basic petrochemical plants in the Northeastern Complex and in the Southern Complex includes a factor that adjusts the price to reflect the *real*/U.S. dollar exchange rate.

The depreciation of the *real* against the U.S. dollar generally increases the production cost for the Company's products and the Company generally attempts to increase the Brazilian prices for its products in *reais* (to the extent possible in light of then-prevailing market conditions in Brazil), which may result in reduced sales volumes of its products. To the extent that the Company's price increases are not sufficient to cover the increased costs for raw materials, its operating margin decreases. Conversely, the appreciation of the *real* against the U.S. dollar generally decreases the production cost for its products and the Company generally decreases the Brazilian prices for its products in *reais*, which may result in increased sales volumes of the Company's products. In periods when the *real*/U.S. dollar exchange rate is highly volatile, there is usually a lag between the time when the U.S. dollar appreciates or depreciates and the time when the Company is able to pass on increased costs, or is required to pass on reduced costs, in *reais* to the Company's customers in Brazil. These pricing discrepancies decrease when the *real*/U.S. dollar exchange rate is less volatile.

Braskem can enter into financial derivatives transactions to mitigate exchange rate risk associated with exposure to costs in *reais*. Those operations can include call and put options and related strategies. For example, Braskem may apply a hedging strategy referred to as collar, which is composed of the purchase of a put option associated with the simultaneous sale of a call option, where both options having the same maturity. In this case, if the *real* depreciates and the strike price of the call exceeds the exchange rate of the option's exercise date, the Company may incurs significant financial losses. However, since those strategies will be implemented only for non-speculative purposes (in accordance with the Company's financial policy), potential losses on derivatives transactions should be offset by more competitive fixed costs in *reais*.

The Company's consolidated U.S. dollar-denominated indebtedness represented 93.6% of its outstanding indebtedness as of December 31, 2017. As a result, when the *real* depreciates against the U.S. dollar:

- the interest costs on the Company's U.S. dollar-denominated indebtedness increase in *reais*, which adversely affects its results of operations in *reais*;

- the amount of the Company's U.S. dollar-denominated indebtedness increases in *reais*, and its total liabilities and debt service obligations in *reais* increase; and

- the Company’s financial expenses tend to increase as a result of foreign exchange losses that the Company must record, mitigated by its decision to designate, on May 1, 2013, part of its U.S. dollar-denominated liabilities as a hedge for its future exports.

Appreciation of the *real* against the U.S. dollar has the converse effects.

Export sales and sales by the Company’s USA and Europe Unit, which enable us to generate receivables payable in foreign currencies, tend to provide a hedge against a portion of the Company’s U.S. dollar-denominated debt service obligations, but they do not fully match them. To further mitigate its exposure to exchange rate risk, the Company tries, where possible, to enter into trade finance loans for its working capital needs, which funding is generally available at a lower cost because it is linked to U.S. dollar exports.

***Effects of Brazilian Inflation***

Brazilian inflation affects the Company's financial performance by increasing some of its operating expenses denominated in *reais* (and not linked to the U.S. dollar). A significant portion of its costs of sales and services rendered, however, are denominated in or linked to the U.S. dollar and are not substantially affected by the Brazilian inflation rate. Some of the Company's*real*-denominated debt is indexed to take into account the effects of inflation. Under this debt, the principal amount generally is adjusted with reference to the General Price Index—Market (*Índice Geral de Preços—Mercado*), an inflation index, so that inflation results in increases in its financial expenses and debt service obligations. In addition, a significant portion of its *real*-denominated debt bears interest at the TJLP or the CDI rate, which are partially adjusted for inflation.

***Effect of Sales Outside Brazil on The Company's Financial Performance***

The Company have significant production capacity located outside of Brazil from its plants located in the United States, Germany and Mexico.

During the year ended December 31, 2017 47.3% of the Company's net sales revenue was derived from sales of its products outside Brazil as compared 48.4% during 2016 and 49.4% during 2015. Net sales revenues derived from sales outside Brazil decreased by 0.9% during 2017 and by 0.3% during 2016.

During the year ended December 31, 2017, sales to customers in countries in the Americas (other than Brazil) accounted for 66.5% of the Company's sales outside Brazil. During the year ended December 31, 2017, sales to customers in Europe accounted for 14.8% of its sales outside Brazil, and sales to customers in East Asia and Other accounted for 18.7% of its sales outside Brazil.

During the past several years, as the relative cost of naphtha and gas as feedstock for petrochemical crackers has diverged, the profit margins of many naphtha crackers, including the Company's, have decreased as crackers using gas as feedstock have become the low-cost producer in the global markets. However, since gas crackers are unable to produce the co-products and byproducts that naphtha crackers generate, such as propylene, butadiene and BTX products, the prices of these products in the international markets have increased. As a result of the increased prices available for most of these co-products and byproducts, its net sales revenue from export sales of these products increased.

***Cyclicality Affecting the Petrochemical Industry***

Global consumption of petrochemical products has increased significantly over the past 30 years. Due to this growth in consumption, producers have experienced periods of insufficient capacity for these products. Periods of insufficient capacity, including some due to raw material shortages, have usually resulted in increased capacity utilization rates and international market prices for the Company’s products, leading to increased domestic prices and operating margins. These periods have often been followed by periods of capacity additions, which have resulted in declining capacity utilization rates and international selling prices, leading to declining domestic prices and operating margins.

The Company expects that these cyclical trends in international selling prices and operating margins relating to global capacity shortfalls and additions will likely persist, principally due to the continuing impact of fthe Company’s general factors:

- cyclical trends in general business and economic activity produce swings in demand for petrochemicals;

- during periods of reduced demand, the high fixed cost structure of the capital intensive petrochemicals industry generally leads producers to compete aggressively on price in order to maximize capacity utilization;

- significant capacity additions, whether through plant expansion or construction, can take three to four years to implement and are therefore necessarily based upon estimates of future demand; and

- as competition in petrochemical products is, in most cases,focused on price, being a low-cost producer is critical to improved profitability. This favors producers with larger plants that maximize economies of scale, but construction of plants with high capacity may result in significant increases in capacity that can outstrip demand growth.

A variety of petrochemical companies have announced plans to build significant additional ethylene production capacity, primarily in Asia and North America. According to IHS, 36.4 million tons of annual global ethylene capacity is scheduled to be commissioned between 2018 and 2022, including approximately 13.4 million tons of annual capacity in China and 12.4 million tons of annual capacity in North America. According to IHS, the majority of the new capacity in China will be based on flexible feedstock, with naphtha as the main raw material but also with the option to crack natural gas liquids. The scenario is different in North America, where all the new capacity is ethane-based, with only a small percentage of it being flexible to use another feedstock. Additionally, expansions of ethylene capacity are frequently subject to delays, and the Company cannot predict when the planned additional capacity will be commissioned, if at all.

International pricing pressures increased in 2011 and 2012 as the price differential between naphtha and gas increased and producers using ethane as raw materials were able to maintain competitive margins at sales prices lower than those required by some naphtha based producers. In 2013, the global economy showed signs of recovery, as reflected by the improved performance of the U.S. economy and indications that the euro zone had begun to emerge from crisis. This scenario helped support a recovery in the profitability of the global petrochemical industry, and the spreads for thermoplastic resins and main basic petrochemicals improved during the year. In 2014, world GDP growth fell short of initial forecasts for the year, reflecting the slower growth in emerging economies and in the euro zone. However, the recovery in the U.S. economy and the good performance of other developed markets, such as the United Kingdom, had a positive impact on the world economy in 2014. In 2015 crude oil prices fell sharply, which reduced the competitive advantage of gas-based producers compared to naphtha-based producers. In 2016 oil prices were kept under pressure and the petrochemical industry continued to benefit from the upcycle, even though prices were down from 2015.

In 2017, the wave of new ethylene capacity that had been expected to start up in North America in the prior year continued to suffer numerous delays. This factor, combined with several unscheduled maintenance turnarounds, especially in the U.S. due to extreme weather conditions, have allowed spreads to maintain a healthy level throughout the year, thus extending the upcycle of the industry.

The outlook for the short-term is cautious, since raw material prices have been increasing, and the wave of new ethylene capacity is finally starting up or on the brink of commissioning. With OPEC extending its production cut agreement, it is not expected that oil prices will return to levels below US$60 bbl, and with natural gas liquids exports increasing rapidly, ethane and propane prices are also forecasted to rise in 2018. Therefore, the petrochemical industry is expected to experience an increase in supply with higher production cash costs across the regions, resulting in lower spreads and a more challenging environment for players. Finally, demand is expected to continue growing, with China's increasing concern with environmental health limiting the country's production of recycled resins and the rest of the world's economies continuing to improve, but not as much as to prevent prices from falling in comparison with 2017.

The Company believes the outlook beyond 2018 is likely to be better, as the new capacity in the market is absorbed by demand and no new wave of investments are expected globally until 2021. However, the production generated by the increase in capacity may lead to an increase in competition from imports in the Brazilian market, which could adversely affect the Company’s net sales revenues, gross margins and overall results of operations.

***Effects of Fluctuations in Naphtha, Ethane, Propane and Propylene Prices***

Fluctuations in the international market price of naphtha have significant effects on the Company’s costs of goods sold and the prices that the Company is able to charge its customers for its first and second generation products. Political instability in the Middle East or similar events that may occur in the future may lead to unpredictable effects on the global economy or the economies of the affected regions. These events have had and may continue to have negative effects on oil production and price volatility, consequently driving naphtha and petrochemical prices higher worldwide.

The price of ethane and propane in the Mont Belvieu region in Texas is used as a reference for the Company’s costs of feedstock. Any future developments that affect the U.S. supply/demand balance for natural gas may adversely affect the Mont Belvieu price of natural gas (including ethane, propane and butane) and increase its production costs or decrease the price of petrochemical products. External factors and natural disasters such as hurricanes, harsh winters or industry developments, such as shale gas exploration, may disrupt the supply of natural gas, thereby increasing the cost, which may materially adversely affect its cost of sales and results of operations.

*Effects on Cost of Sales*

Naphtha is the principal raw material used by the Company’s Chemicals Unit and, indirectly, in several of its other business units. Naphtha accounted for 40.0% of its direct and indirect consolidated cost of sales and services rendered during 2017.

The cost of naphtha varies in accordance with international market prices, which fluctuate depending upon the supply and demand for oil and other refined petroleum products. The Company purchases naphtha under a long-term supply contract with Petrobras, and the Company imports naphtha from other suppliers through its terminal at Aratú in the State of Bahia and Petrobras’ terminal at Osório in the State of Rio Grande do Sul. The prices that the Company pay for naphtha under these arrangements, other than its supply contract with Petrobras, are based on the Amsterdam-Rotterdam-Antwerp market price for naphtha. As a result, fluctuations in the Amsterdam-Rotterdam-Antwerp market price for naphtha have had a direct impact on the cost of its first generation products.

The Company's contracts with Petrobras provides for naphtha prices based on Amsterdam-Rotterdam-Antwerp (ARA) quotations. The volatility of the quotation of this product in the international market, the *real*/U.S. dollar exchange rate, and the level of carbon disulfide, a contaminant of the naphtha that is delivered, also influence the price of naphtha that the Company purchases from Petrobras. The Company believes that these contracts have reduced the exposure of the cost of the Company's first generation products to fluctuations in the Amsterdam-Rotterdam-Antwerp market price for naphtha.

The international price of naphtha has fluctuated significantly in the past, and the Company expects that it will continue to do so in the future. Significant increases in the price of naphtha and, consequently, the cost of producing the Company's products, generally reduce its gross margins and its results of operations to the extent that the Company is unable to pass all of these increased costs on to its customers, and may result in reduced sales volumes of its products. Conversely, significant decreases in the price of naphtha and, consequently, the cost of producing its products, generally increase its gross margins and its results of operations and may result in increased sales volumes if this lower cost leads us to lower its prices. In periods of high volatility in the U.S. dollar price of naphtha, there is usually a lag between the time that the U.S. dollar price increases or decreases and the time that the Company is able to pass on increased, or required to pass on reduced, costs to its customers in Brazil. These pricing discrepancies decrease when the U.S. dollar price of naphtha is less volatile.

The Company do not currently hedge its exposure to changes in the prices of naphtha because a portion of its sales are exports payable in foreign currencies and linked to the international market prices of naphtha and also because the prices of its polyethylene, polypropylene and PVC products sold in Brazil generally reflect changes in the international market prices of these products.

*Effects on Prices of The Company's Products*

The prices that the Company charge for many of its basic petrochemical products is determined by reference to the European contract prices for these products. Because European producers of basic petrochemical products primarily use naphtha as a raw material, changes in the European contract prices are strongly influenced by fluctuations in international market prices for naphtha. To the extent that its prices are based on the European contract prices for its products, the prices that the Company charges for these products are significantly influenced by international market prices for naphtha.

The Company negotiate the prices in *reais* for part of its products, principally polyethylene, polypropylene and PVC, on a monthly basis with its domestic customers. The Company attempts to revise its prices to reflect (1) changes in the international market prices of these products, which tend to fluctuate in tandem with naphtha prices, especially for polyethylene, and (2) the appreciation or depreciation of the *real* against the U.S. dollar. However, during periods of high volatility in international market prices or exchange rates, the Company is sometimes unable to fully reflect these changes in its prices in a prompt manner.

The international market prices of the Company's petrochemical products have fluctuated significantly, and the Company believes that they will continue to do so. Volatility of the price of naphtha and the upward trend in the price of petroleum and naphtha have effects on the price competitiveness of its naphtha-based crackers and its resins. Because pricing trends for naphtha and ethane have diverged in recent years to a greater extent than has been the case historically, producers of ethylene and resin products derived from ethane generally have experienced lower unit raw material costs than naphtha-based producers of these products. As a consequence, significant increases in the pricing differential between naphtha and gas increases the competitiveness of products derived from ethane and may result in pricing pressure in the international markets.

Significant increases in the international market prices of the Company's petrochemical products and, consequently, the prices that the Company is able to charge, generally increase its net sales revenue and its results of operations to the extent that the Company is able to maintain its operating margins and increased prices do not reduce sales volumes of its products. Conversely, significant decreases in the international prices of its petrochemical products, and, consequently, the prices that the Company charges, generally reduce its net sales revenue and its results of operations if the Company is unable to increase its operating margins or these reduced prices do not result in increased sales volumes of its products.

***Capacity Utilization***

The Company’s operations are capital intensive. Accordingly, to obtain lower unit production costs and maintain adequate operating margins, the Company seeks to maintain a high capacity utilization rate at all of its production facilities.

The table below sets forth capacity utilization rates with respect to the production facilities for some of the Company’s principal products for the periods presented.

| | **Year Ended December 31,** | | |
|---|---|---|---|
| | **2017** | **2016** | **2015** |
| Ethylene | 94% | 92% | 89% |
| Polyethylene | 90% | 89% | 87% |
| Polypropylene | 93% | 86% | 76% |
| PVC | 86% | 84% | 76% |
| Polypropylene USA and Europe | 97% | 100% | 98% |
| PE Mexico (*) | 85% | 42% | - |

(*) Mexico complex commenced operations during 2016.

In 2015, average capacity utilization was affected by (1) improved performance of the complexes in the Northeastern Complex and the Southern Complex; (2) an incident at the complex in São Paulo; and (3) a lack of propylene supply at the Rio de Janeiro Complex, and (4) a lack of ethane and propane supply at the Rio de Janeiro Complex.

In 2016, average capacity utilization was affected by (1) strong operating performance of the crackers, resulting from increased operating efficiency and exports of excess volumes not absorbed, and (2) higher availability of feedstock at the gas-based cracker in Rio de Janeiro.

In 2017, average capacity utilization was affected by strong operating performance of the crackers, resulting from increased operating efficiency and higher availability of feedstock at the gas-based cracker in Rio de Janeiro.

***Effects of Brazilian Industrial Policy***

The Brazilian government has a significant influence in some sectors of the domestic economy, including the petrochemical sector in which the Company operates. The Brazilian government has adopted, or is considering adopting, measures to boost the competitiveness of domestic companies, as described below.

*Reintegra*

In December 2011, the Brazilian government implemented the “Reintegra” program, which is designed to improve the competitiveness of Brazilian manufacturers in the export markets by refunding the federal taxes levied on their export sales. As a result of this incentive, exports of third generation products by Brazilian companies have increased thereby increasing Brazilian demand for the Company’s products. The original program ended in the end of December 2013. In August 2014, the Brazilian government permanently reinstated Reintegra, the program was established on a permanent basis and with mobile rates, that could vary by up to 5% of the revenue of the companies with exports, with a refund tax rate of 0.1%.In October 2014, the Brazilian government restored the rate to 3.0% until the end of 2015. However, in March 2015, the Brazilian federal government again decreased the rate to 1.0% for 2015 and 2016. In October 2015, according to the Decree 8,543, the Brazilian federal government decreased the refund rate to 0.1% as of December 1, 2015 which remained in effect until December 31, 2016. On August 28, 2017, pursuant to Decree 9,148, that amended the Decree 8,543, the Reintegra rate increased to 2% effective as of January 1, 2017 until December 31, 2018.

*Import Tariffs at Local Ports*

Historically, tariffs on imports have been established by the federal government. However, in recent years, some Brazilian states established tax benefits to attract imports at local ports in order to raise revenue and develop local port infrastructure, primarily in the form of reductions of ICMS taxes that would otherwise be due to these states. Industry and union leaders have alleged that such legislation creates a subsidy for imported products, thereby harming local industry.

On January 1, 2013, legislation took effect reducing the maximum ICMS tax that the state can charge from a rate of 12% to 4% on interstate sales of imported raw materials and other goods that are not wholly or partially manufactured in Brazil. In addition to certain other limited exceptions, this tax reduction does not apply to imported goods that do not have Brazilian-made substitutes. As a result, current tax benefits offered by some Brazilian states for the import of goods in the form of reduced ICMS tax rates have become less attractive.

*Pricing and Tariffs*

The Company set prices for ethylene, the principal first generation petrochemical product that the Company sell to third-party second generation producers, by reference to international market prices. See “—Chemicals Unit—Sales and Marketing of The Company’s Chemicals Unit.” Prices paid by second generation producers for imported first generation petrochemical products partly reflect transportation and tariff costs. The Company establishes the prices of ethylene by-products, such as butadiene, by reference to several market factors, including the prices paid by second generation producers for imported products. Prices paid for such imports also reflect transportation and tariff costs.

Second generation producers, including the Company’s company, generally set prices for their petrochemical products by reference to several market factors, including the prices paid by third generation producers for imported products. Prices paid for such imports also reflect transportation and tariff costs.

The Brazilian government has used import tariffs to implement economic policies. As a result, import tariffs imposed on petrochemical products have varied in the past and may vary in the future. Tariffs on imports of first generation petrochemical products are between 0% and 4%, and tariffs on polyethylene, polypropylene and PVC resins are 14.0%.

Imports and exports within the free trade area in South America (Mercado Comum do Sul), or Mercosur, which is composed of Argentina, Brazil, Paraguay and Uruguay, have not been subject to tariffs since December 2001.  Imports of suspension PVC from Bolivia, Chile, Colombia, Cuba, Equator, Peru and Venezuela are not subject to tariffs, due to a number of trade agreements. Imports of suspension from Mexico are subject to reduced tariffs of 11.2%, due to a trade agreement. Imports and exports among Mercosur and Colombia, Ecuador e Venezuela are not subject to tariffs due to a trade agreement since 2005.

Imports of suspension PVC from the U.S. and Mexico have been subject to anti-dumping duties of 16.0% and 18.0%, respectively, that were imposed by the Brazilian Foreign Trade Chamber (Câmara de Comércio Exterior), or CAMEX. Since 2008, imports of suspension PVC from China have been also subject to duties of 21.6%, and imports of suspension PVC from South Korea have been subject to duties ranging between 0% and 18.9%, depending on the producer, as a result of the imposition of anti-dumping duties by CAMEX. The duties imposed to imports from U.S. and Mexico are scheduled to expire in 2021, and the duties imposed to imports from China and South Korea are scheduled to expire in 2019.

Additionally, in December 2010, CAMEX imposed an anti-dumping duty of 10.6% on polypropylene imports from the United States. Those measures were renewed in November 2016. In August 2014, the Brazilian government imposed anti-dumping duties on polypropylene imports from South Africa, India and South Korea of 16.0%, 6.4 to 9.9% and 2.4 to 6.3%, respectively. The duties imposed on imports of polypropylene from the United States are scheduled to expire in 2021, and the duties imposed on imports from South Africa, India and South Korea are scheduled to expire in 2019.

In 2017, approximately 25% of Brazilian polyethylene, polypropylene and PVC resins were imported products, which reflected a 12% annual decrease in the volume of resins imported, reflecting the volatility in the U.S. dollar-denominated prices of thermoplastic resins, which triggered an increase in the purchase of thermoplastic resins in Brazil. For more information, see "Effects of Brazilian Industrial Policy—Import Tariffs at Local Ports."

*Increased Import Duties on Polyethylene*

As part of its initiative to strengthen domestic manufacturers, on October 1, 2012, the Brazilian government adopted a resolution that increased import duties on 100 products related to various industries, including an increase on the import tariff for polyethylene from 14% to 20%. In October 2013, the Brazilian government reduced the import tariff for polyethylene to the previous level of 14%.

***Effect of Level of Indebtedness and Interest Rates***

As of December 31, 2017, the Company's total outstanding consolidated indebtedness, net of transaction costs, was R$23,674.7 million. The level of its indebtedness results in significant financial expenses that are reflected in its statement of operations. Financial expenses consist of interest expense, exchange variations of U.S. dollar- and other foreign currency-denominated debt, foreign exchange losses or gains, and other items as set forth in note 15 to its audited consolidated financial statements. In the year ended December 31, 2017, the Company recorded total financial expenses of R$3,747.2 million, of which R$2,219.5 million consisted of interest expense. The Company recorded financial revenue of R$603.6 million, of which R$481.6 million corresponds to interest income. In addition, the Company recorded a loss of R$798.8 million in connection foreign exchange variation on the Company's financial assets and liabilities. The interest rates that the Company pays depend on a variety of factors, including prevailing Brazilian and international interest rates and risk assessments of the Company, the Company's industry and the Brazilian economy made by potential lenders to the Company, potential purchasers of its debt securities and the rating agencies that assess the Company and its debt securities.

***Effect of Taxes on The Company's Income***

The Company is subject to a variety of generally applicable federal and state taxes in multiple jurisdictions on its operations and results. The Company is generally subject to Brazilian federal income tax (combined with Social Contribution on Net Income (*Contribuição Social Sobre o Lucro Líquido*), or CSLL) at an effective rate of 34%, which is the standard corporate tax rate in Brazil.

The Company have available certain federal tax exemptions based upon federal law that offers tax incentives to companies that locate their manufacturing operations in the Brazilian states of Bahia and Alagoas. These exemptions have been granted for varying lengths of time to each of its manufacturing plants located in these states.

The Company are entitled to pay 25% of the statutory income tax rate on the profits arising from the sale of:

- polyethylene manufactured at one of the Company's polyethylene plants in the Northeastern Complex until 2026; and

- Polyethylene manufactured at one of the Company's polyethylene plants in the Northeastern Complex and caustic soda, chlorine,ethylene dichloride and PVC produced at its plants in the Northeastern Complex and Alagoas until 2024.

Each of the Company's exemptions entitles us to pay only 44.9% of the statutory income tax rate (of 34%) on the profits arising from products manufactured at these plants.

Due to operating losses sustained by us in the past, the Company had R$ 1,878.8 million of deferred income tax and social contribution assets arising from tax loss carryforwards available as of December 31, 2017. Income tax loss carryforwards available for offset in Brazil do not expire. However, the annual offset is limited to 30% of the Company's adjusted net profits. This limit also affects the social contribution on net profit, or CSLL. The consolidated amount includes the impact from the different tax rates in countries where foreign subsidiaries are located, as follows:

- Braskem Europe (Germany) - 31.18%

- Braskem America and Braskem America Finance (United States) - 35.00%

- Braskem Argentina (Argentina) - 35.00%

- Braskem Austria and Braskem Austria Finance (Austria) - 25.00%

- Braskem Petroquímica Chile (Chile) - 25.50 %

- Braskem Holanda, Braskem Holanda Finance and Braskem Holanda Inc Netherland (The Netherlands)- 25.00%

- Braskem Idesa, Braskem Idesa Serviços, Braskem México, Braskem México Serviços and Braskem México Sofom (Mexico) - 30.00%

The Company's export sales are currently exempt from (1) PIS (2) COFINS, a federal value-added tax, (3) the Tax on Industrial Products (*Imposto sobre Produtos Industrializados*), or IPI, a federal value-added tax on industrial products, and (4) ICMS.

b) **Variations in revenues attributable to price changes, currency exchange rates, inflation, volume alterations and the introduction of new products and services c) Impact caused by the inflation, the variation in prices for the most important inputs and products, the currency exchange and the interest rate in the Company's operation income and the financial result, if applicable.**

OPERATING INCOME

The sale price of the products traded by the Company, as well as the price of the main raw materials and inputs, are based on international Dollar references. Thus, revenues and costs fluctuate due to the variation of these international references and the Real to Dollar exchange rate.

The Officers present below the analysis for the past three financial years in terms of (i) operating performance, (i) volume variations, and (iii) international references variations of products sold and raw materials used, by segment:

**BRAZIL**

CHEMICALS

- Utilization Rate and Production

The average utilization rate for crackers was 94% in 2017, 92% in 2016 and 89% in 2015. The increase in this rate in 2017 compared to previous years is mainly explained by (i) the good operational performance of the petrochemical plants, in line with the Company's strategy of guaranteeing operational efficiency to supply the Brazilian market, while exporting the non-absorbed volume and (ii) the lack maintenance shutdowns in the three largest crackers of the Company.

Due to the good operational performance, the production of chemicals in 2017 was of 8,656 thousand tons, 2% higher than in 2016 and also the Company's historical record. During the year, ethylene production totaled 3,5159 thousand tons, up 2% when compared to 2016 (3,460 thousand tons), which in turn increased by 4% compared to 2015 (3,357 thousand tons).

- Sales Volume[4]

The sales volume of main chemicals to third parties in Brazil reached 2,838 thousand tons in 2017, 8% higher than 2016, (2,618 thousand tons), which in turn was 17% higher than in 2015 (2,239 thousand tons). Exports of the main chemicals reached 824 thousand tons, 3% lower than in 2016 (850 thousand tons), which is mainly explained by the recovery in the demand of the domestic market. Exports of main chemicals in 2016, in turn, showed a decrease of 22% when compared to 2015.

- International Reference

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4 Does not contemplate transfers of ethylene and propylene to polyethylene and polypropylene plants

In 2017, the international price for the main chemicals[5] was USD 896/t compared to USD 706/t in 2016 and USD 781/t in 2015. The drop in prices observed over the past three financial years followed the drop in oil prices.

| **MAIN CHEMICALS (USD/t)** | **2017 (A)** | **2016 (B)** | **2015 (C)** | **Var. (A)/(B)** | **Var. (B)/(C)** |
|---|---|---|---|---|---|
| Ethylene (NWE) | 1,146 | 1,005 | 1,066 | 14% | -6% |
| Butadiene (USG) | 1,372 | 817 | 752 | 68% | 9% |
| Propylene (USG) PGP | 986 | 759 | 859 | 30% | -12% |
| Cumene (USG) | 862 | 649 | 734 | 33% | -12% |
| Benzene (USG) | 847 | 642 | 707 | 32% | -9% |
| Paraxylene (ASIA) | 891 | 819 | 873 | 9% | -6% |
| Orthoxylene (USG) | 851 | 766 | 881 | 11% | -13% |
| Mixed Xylenes (USG) | 676 | 630 | 762 | 7% | -17% |
| MTBE (NWE) | 670 | 552 | 734 | 21% | -25% |
| Fuel(USG) | 635 | 527 | 627 | 21% | -16% |
| Toluene (USG COM) | 650 | 561 | 694 | 16% | -19% |
| Average | 896 | 706 | 781 | 27% | -10% |

The Chemical segment is composed of naphtha, ethane and propane as main inputs for the production of olefins and aromatics. Petrobras supplies 100% of the ethane and propane consumed by the Company and about 60% of the naphtha, while the rest is imported from a number of different suppliers.

| **Raw-Materials (USD/t)** | **2017 (A)** | **2016 (B)** | **2015 (C)** | **Var. (A)/(B** | **Var. (B)/(C)** |
|---|---|---|---|---|---|
| **BRENT (USD/bbl)** | 54 | 43 | 52 | 25% | -17% |
| **Naphtha ARA CIF NWE** | 485 | 385 | 462 | 26% | -17% |
| **Ethane USG** | 184 | 146 | 137 | 26% | 7% |
| **PROPANEUSG** | 400 | 252 | 236 | 59% | 7% |



5 25% ethylene and propylene, 35% BTX, 10% butadiene, 5% cumene and 25% fuels, as per capacity mix of the industrial units of the Company in Brazil.

The average quotation for oil was USD 54/barrel in 2017, a 25% increase from the 2016 average quotation (USD 43/barrel), which in turn represented a decrease of 17% compared to 2014. This increase was also reflected in the average price of naphtha in the international market, which amounted to USD 485/t in 2017, 26% higher when compared to the average price of USD 385/t in 2016, which represented a 17% decrease compared to 2015. Ethane, the raw material used by Rio de Janeiro's petrochemical center and in the Mexican complex, recorded a Gulf reference price of USD 184/t (USD 25 cts/gal) for the year, 26% higher than in 2016. The average price of ethane in 2016 increased by 7% compared to 2015.

POLYOLEFINS

- Utilization Rate and Production

The average utilization rate for PE plants was 90% in 2017, 89% in 2016 and 87% in 2015. The increase in this rate over the period is a reflection of the good operational performance of the plants and of the Company's ability to export the volume that was absorbed by the domestic market.

In relation to the PP plants, utilization rates amounted to 93% in 2017 86% in 2016 and 76% in 2015. The increase of 7 pp in the 2017 rate when compared to 2016 was influenced by the better performance of the plants located in the state of São Paulo and the Rio de Janeiro hub, as a result of the improvement in the supply of propylene by the Chemical segment. In relation to 2015, utilization rate increased by 10 percentage points.

Due to the higher average utilization rate, production of the Polyolefins segment amounted to 4,431 thousand tons in 2017, registering a record production of PE and PP and an increase of 3% compared to 2016 (4,301 thousand tons) which, in turn was 3% higher than 2014 (4,007 thousand tons).

- Sales Volume

In 2017, the estimated Brazilian market for polyolefins totaled 4,061 thousand tons 6% higher than 2016, due to the greater level of activity of the packaging sector and recovery in certain sectors, especially the automotive, agricultural, retail and electronics sector. The volume of sales in Brazil amounted to 2,960 thousand tons, a 5% increase when compared to 2016, with market share of 73%, the same as in 2016.

The sales volume to the foreign market amounted to 1,438 thousand tons, a 10% drop compared to 2016, mainly due to the recovery of the domestic market and reallocation of the Company’s sales.

In 2016, strongly impacted by the poor performance of the Brazilian economy, the estimated demand for polyolefins (Polyethylene and Polypropylene) reached approximately 3.833 thousand tons, a decrease of 1% when compared to 2015, when it totaled 3,878 thousand.

Braskem's sales in the domestic market amounted to 2,811 thousand tons and, similarly to the market, presented a 1% decrease in comparison to 2015, when the value amounted to 2,833 thousand tons. The market share registered for 2016 was 73%, the same when compared to 2015.

Exports, in turn, amounted to 1,590 thousand ton, showing an increase of 22% compared to 2015, when it reached 1,307 thousand tons.

- International Reference

The average international price for polyolefins amounted to USD 1,155/t in 2017, as opposed to figures of USD 1,078/t in 2016, and USD 1,182/t in 2015.

| **Polyolefins (USD/t)** | **2017 (A)** | **2016 (B)** | **2015 (C)** | **Var. (A)/(B)** | **Var. (B)/(C)** |
|---|---|---|---|---|---|
| **PE (USG)** | 1,202 | 1,150 | 1,239 | 5% | -7% |
| **PP (ÁSIA)** | 1,077 | 960 | 1,088 | 12% | -12% |
| **Average Price[6]** | **1,155** | **1,078** | **1,182** | **7%** | **-9%** |

The spread for polyolefins[7] reached USD 713/t in 2017, USD 713/t in 2016 and USD 750/t in 2015.

| **Polyolefins (USD/t)** | **2017 (A)** | **2016 (B)** | **2015 (C)** | **Var. (A)/(B)** | **Var. (B)/(C)** |
|---|---|---|---|---|---|
| **PE (USG) - Naphtha** | 717 | 764 | 777 | -6% | -2% |
| **PE (USG) - Ethane** | 910 | 951 | 1,053 | -4% | -10% |
| **PP (ÁSIA) - Naphtha** | 592 | 575 | 626 | 3% | -8% |
| **Average Spread** | **697** | **713** | **750** | **-2%** | **-5%** |

VINYLS

- Utilization Rate and Production

The average utilization rate for the PVC plants was 86% in 2017, 84% in 2016, and 76% in 2015. Therefore, production volume amounted to 611 thousand tons in 2017, 594 thousand tons in 2016, and to 542 thousand tons in 2015.

- Sales Volume

In 2017, the estimated PVC market amounted to 1.005 thousand tons, a 2% decrease from 2016, mainly due to the construction and infrastructure sectors. Braskem's sales, in turn, amounted to 526 thousand tons, the same level as in 2016. The Company’s market share was the same of 2016, 52%.

Exports totaled 82 thousand tons in 2017, 30% lower than 2016.

In 2016, the approximate Brazilian demand for PVC was of approximately 1.,024 thousand tons, a 2% contraction when compared to 2015, when demand was of 1,048 thousand tons. The infrastructure and construction sectors, the main resin-consuming markets, have suffered the most from the effects of the economic crisis throughout the year. During this period, Braskem's domestic sales amounted to 528 thousand tons, same level of 2015 (529 thousand tons) while the market share increased to 52%, showing an increase of 1 pp against 2015. The total volume sold in the external market was 117 thousand tons in 2016 against 65 thousand tons in 2015.

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6 62% PE 62% and 38% PP 38, based on production capacity of the plants in Brazil

7 Difference between the average price of polyolefins and the average price of raw materials (naphtha/ethane)

- International Reference

The international price for PVC was USD 893/t in 2017, up from USD 817/t in 2016 and USD 819/t in 2015. The price increase occurred due to the appreciation of the raw material and the lack of new capacities.

| International Reference (USD/t) | 2017 (A) | 2016 (B) | 2015 (C) | Var. (A)/(B) | Var. (B)/(C) |
|---|---|---|---|---|---|
| **PVC (Asia)** | 893 | 817 | 819 | 9% | 0% |

The spread for PVC[8] was USD 409/t in 2017, opposed to USD 431/t in 2016 and USD 357/t in 2015. The worsening in spreads in relation to last year is a result of the increase in prices for raw material.

| Spread (USD/t) | 2017 (A) | 2016 (B) | 2015 (C) | Var. (A)/(B) | Var. (B)/(C) |
|---|---|---|---|---|---|
| **PVC (Asia)** | 409 | 431 | 357 | -5% | 21% |

**UNITED STATES AND EUROPE**

- Utilization Rate and Production

In 2017, the utilization rate was 97% 3pp lower than the previous year due to the review of the production capacity implemented in the beginning of the year. Considering the same capacity for both years, the utilization rate of 2017 was 5pp higher than 2016. In the year, the production in the United States and in Europe was 5% higher, representing a history record of the Company.

In 2016, the average utilization rate for the PP plants in the US and Europe amounted to 100% compared to 98% in 2015, registering 2.01 million tons of production, a 2pp increase compared to 2015, with production totaling 1.97 million of tons.

- Sales Volume

8 PVC Spread = PVC Price (Asia) – Naphtha ARA Price

In 2017, the volume of PP sales amounted to 2,133 thousand tons, 5% higher than 2016, due to the increase in the capacities of the Company’s plants and increasing demand in Europe and in the United States, where the highlights were the food packaging and nonwoven sectors.

In 2017, the PP sales of Braskem in the North-American market grew 8% in relation 2016 due to the increase in the capacity of the Company’s plants and to the good performance of the food packaging and nonwoven sectors. In Europe, the drop of 1% in the sales volume was a result of the scheduled and non-scheduled shutdowns, mainly in the second and fourth quarters.

The sales volume in 2016 was 2,007 thousand tons, 2% higher than 2015 and following the greater offer of propylene due to the higher utilization rate of the refineries in the United States and the improvement in the economic scenario in both regions.

- International Reference

The international price for PP in Europe amounted to USD 1,450/t in 2017, up from USD 1,203/t in 2016 and USD 1,352/t in 2015.

In the United States, the price for PP was USD 1,571/t in 2017, opposed to USD 1,461/t in 2016 and to USD 1,423/t in 2015

| **International Reference (USD/t)** | **2017 (A)** | **2016 (B)** | **2015 (C)** | **Var. (A)/(B)** | **Var. (B)/(C)** |
|---|---|---|---|---|---|
| **PP (EU)** | 1,450 | 1,203 | 1,352 | 21% | -11% |
| **PP (USG)** | 1,571 | 1,461 | 1,423 | 8% | 3% |

The main input for PP production within the United States and Europe segment is propylene, which is supplied to the Company's plants by several local producers.

In the year average, the price of propylene in the USA was USD 986/t, 30% higher than 2016, which is explained by the increase in the price of propane and by the low level of stock.

In 2017 the reference price in Europe was USD 946/t, 30% higher than the previous year, which is explained by the increase in the price of oil and by the increasingly higher quantity of gas being used to the detriment of naphtha as raw material in the European crackers, which decreases the offer of propylene in the region.

In 2016, the average international reference price for propylene in the US Gulf (USG) was USD 759/t, 12% lower than in the previous year due to the greater availability of this raw material as a result of the increase in capacity of the PDH's, which have shown higher utilization rates when compared to the previous year in spite of certain operational problems in the second half of the year.

In that same year the average price reference for propylene in Europe was USD 727/t, 23% lower than in 2015 due to the 17% drop in the international oil market price in 2016.

| International Reference (USD/t) | 2017 (A) | 2016 (B) | 2015 (C) | Var. (A)/(B) | Var. (B)/(C) |
|---|---|---|---|---|---|
| **Propylene (EU)** | 946 | 727 | 942 | 30% | -23% |
| **Propylene (USG)** | 986 | 759 | 859 | 30% | -12% |

The PP spread in Europe was USD 505/t in 2017, compared to USD 476/t in 2016 and USD 410/t in 2015, thus reflecting the drop in propylene.

In the United States, PP spread amounted to USD 585/t in 2017, up from USD 702/t in 2016 and USD 564/t in 2015, thus reflecting the drop in propylene.

| Spread (USD/t) | 2017 (A) | 2016 (B) | 2015 (C) | Var. (A)/(B) | Var. (B)/(C) |
|---|---|---|---|---|---|
| **PP - Propylene (EU)** | 505 | 476 | 410 | 6% | 16% |
| **PP - Propylene (USG)** | 702 | 585 | 564 | -17% | 24% |

**MEXICO**

- Occupation Rate and Production

In 2017, the utilization rate of the PE plants in Mexico was 88% due to the good operating performance of the units of the complex, which resulted in the production volume of 924 thousand tons.

In 2016, still in the process of ramp-up, the utilization rate of PE plants amounted to 42%, with a production volume of 443 thousand tons.

- Sales Volume

In 2017, the total PE sales volume was 969 thousand tons, 124% higher than 2016, due to the greater availability of the product. Out of the total sold, 57% were directed to the Mexican market and the rest was exported to several regions, among which Asia, Europe and the United States.

In 2016, 432 thousand tons of PE were sold, including resale of resin to serve the Mexican market with grids which had not yet been produced during the ramp-up stage. Out of the total sold, 46% were directed to the Mexican market.

- International Reference

Braskem Idesa's PE sales price in the Mexican market is referenced by the price of resins traded in the Gulf region of the United States. In 2017, the average price of this reference was USD 1,185/t, 6% higher than 2016, following the drop in the raw material prices and the increase in the Mexican demand.

In 2016 the average price[9] was USD 1,115/t, 9% lower than 2015, mainly due to the drop in the oil prices.

| International Reference (USD/t) | 2017 (A) | 2016 (B) | 2015 (C) | Var. (A)/(B) | Var. (B)/(C) |
|---|---|---|---|---|---|
| **PE (USG)** | 1,185 | 1,115 | 1,221 | 6% | -9% |

In terms of the supply of ethane, Braskem Idesa has a 20-year contract signed with the subsidiary of Petróleos Mexicanos (PEMEX), a Mexican state-owned oil and gas company the price of which is referenced in the price of the ethane USG reference.

In 2017, the average reference price of United States Golf ethane (USG ethane) was USD 184/t, 26% higher than 2016, due to the larger demand after the start-up of the ethane exporting terminals, the increase in the GLP prices and the expected start-up of new crackers.

In 2016, the average ethane price was USD 146/t, 7% higher than the price of 2015, which can be explained by the increase in domestic and export demand, in view of the start-up of the ethane exporting terminals.

| International Reference (USD/t) | 2017 (A) | 2016 (B) | 2015 (C) | Var. (A)/(B) | Var. (B)/(C) |
|---|---|---|---|---|---|
| **Ethane (USG)** | 184 | 146 | 137 | 26% | 7% |

Thus, the ethane PE spread was USD 1,001/t in 2017, USD 969/t in 2016 and USD 1,085/t in 2015.

| Spread (USD/t) | 2017 (A) | 2016 (B) | 2015 (C) | Var. (A)/(B) | Var. (B)/(C) |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| **PE (USG) - Ethane** | 1,001 | 969 | 1,085 | 3% | -11% |

9 71.4% (PEAD USA) and 28.6% (LDPE USA), as per capacity mix of Braskem Idesa units in Mexico

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**COMPANY CONSOLIDATED**

- Net Revenue

In 2017, the consolidated net revenue WAS USD 15,441 million, 12% higher than 2016, explained (i) by the sales volume in the Mexican complex; (ii) by the recovery in the domestic demand; (iii) by the higher prices of resins and chemicals in the international market; and (iv) by the expansion in the capacity of the USA and Germany plants. In Reais, the revenue was BRL 49.261 billion, 3% higher than the previous year.

Revenues arising from the foreign market in Dollars totaled USD 7,243 million for the year, a 9% increase compared to 2016, influenced by the higher prices of resins and chemicals in the international market. In Reais, net revenue from the foreign market accounted for 47% of the Company's total revenue, reaching BRL 23,102 million, BRL 9,523 million of which came from exports.

In 2016, the consolidated net revenue reached USD 13,734 million, 3% lower than the previous year. The drop is explained by the 8% contraction in the price of resins and chemicals in the international market, as a result of lower oil prices and new installed capacities for resins, especially polypropylene, which started operating in China throughout the year. Another factor contributing to this decline was the decrease in sales volume within the domestic market, which dropped 1% in comparison to 2015. In Reais, revenue amounted to BRL 47,664 million, 2% higher than the previous year due to depreciation of the Real in those periods.

Revenues arising from the foreign market in Dollars totaled USD 6,616 million for the year, a 4% decrease compared to 2015, also influenced by the lower average price of resins and chemicals in the international market. In Reais, net revenue from the foreign market accounted for 48% of the Company's total revenue, reaching BRL 22,957 million, BRL 9,891 million of which came from exports.

- COGS

In 2017, the consolidated cost of goods sold (COGS) amounted to USD 11,359 million, an increase of 13% in relation to 2016, due to the higher sales volumes, mainly from Mexico after the ending of the production ramp-up and to the increase in the raw material prices in the international market. In Reais, COGS was BRL 36,244 million, 4% higher than 2016.

In 2016, the consolidated cost of goods sold (COGS) amounted to USD 10,074 million and BRL 34,965 million, a reduction of 5% when compared to the consolidated COGS of 2015. In Reais, COGS was BRL 34,941 million, 9% lower than 2015. If we disregard the COGS for resales (BRL 2,427 million), the consolidated COGS amounted BRL 32,538 million, in line with the ex-resale COGS registered in 2015, since the negative impacts of the start-up of the Braskem Idesa complex; the 5% average depreciation of Real against US Dollar between the periods, and the higher sales volume in the year were offset by the decrease in price for the main raw materials, mainly naphtha.

- SGAE

In 2017, the Sales, General and Administrative Expenses amounted to BRL 3,061 million, 7% higher than in 2016, due to the higher expenses with sales in Mexico and expenses with audits. In Dollars, the expenses amounted to USD 906 million, 3% higher than that presented in 2015.
In 2016, the Sales, General and Administrative Expenses amounted to BRL 2,852 million, 13% higher than in 2015, which is mainly explained by the depreciation of Real against US Dollar in international business expenses; the advertising expenditures related to the Paralympic Games; the expenses with legal services and audits related to internal research conducted throughout the year; higher software license expenses; and the startup of the Braskem Idesa petrochemical complex. In Dollars, expenditures totaled USD 883 million, 16% higher than in 2015.

- EBITDA

In 2017, the consolidated EBITDA was USD 3,872 million, a history record of the Company and 17% higher than 2016, positively impacted by (i) the higher sales volume in Mexico, due to the conclusion of the ramp-up of the complex; (ii) by the higher spreads in the international market of chemicals, PP in Europe and PE in Mexico; (iii) by the expansion in the capacity and increase in the sales volume of the US and Europe units, with record in the PP production in the USA; (iv) by the higher sales volume in the Brazilian market with records in the production of the main chemicals, PP and PE; and (v) by the capital gain of USD 88 million regarding the sales of quantiQ. In Reais, EBIDTA was a record of BRL 12,334 million, 7% higher than 2016.

In 2016, the Company has registered an EBITDA of USD 3,304 million respectively, representing a 18% increase in relation to 2015. The increase is mainly explained by (i) the good operating performance; (ii) the healthy level of resin spreads in the international market; (iii) the higher volume of Brazilian exports; (iv) the performance of US and European operations; (v) beginning of results contribution from the complex in Mexico.

**FINANCIAL RESULTS**

Braskem Idesa Financial Results

The financial results of controlled company Braskem Idesa is mainly impacted by the project finance debt and the loan from the project shareholders. In 2017, the financial result was an expense of BRL 817 million up to an expense of BRL 1,780 million in 2016, positively impacted by a revenue with exchange rate variation on the outstanding debt of the loan, due to the appreciation of the Mexican Peso against the Dollar in the year.

The total debt of project finance is designated for hedge accounting. Thus, the variation in exchange rates is recorded temporarily in equity and is taken to the financial result at the time when the designated sales for hedge accounting are realized. The recognition of the expense related to the transition of the hedge accounting result amounted to BRL 164 million in the year.

In 2016, Braskem Idesa's net financial result was an expense of BRL 1,780 million, compared to an expense of BRL 355 million in 2015, explained by the kick-off of transitions regarding the financial result of interests, previously capitalized in the project phase and incurring on the project finance debt balance (BRL 491 million) as well as on the loan balance (BRL 464 million).

In 2016, the amount recognized in the financial result related to the hedge accounting transition was of BRL 60 million. The exchange rate variation on loans was BRL 1,059 million due to the depreciation of 19% of the Mexican Peso against the US Dollar between the periods. As of December 31, 2016, the outstanding balance of the loan was USD 1,883 million.

Financial Results ex-Braskem Idesa

In 2017, the net financial result was an expense of BRL 3,131 million, a decrease of BRL 1,084 million in relation to 2016. Excluding the effects of the exchange rate variation, the net financial result of 2017 was an expense of BRL 2,194 million, in line with the expense of the previous year.

In 2016, the net financial result was an expense of BRL 4,215 million, against an expense of BRL 1,544 million in 2015. Excluding the effects of the exchange rate and monetary variation, net financial income was an expense of BRL 2,100 million, against an expense of BRL 2,340 million in 2015. The decrease of BRL 240 million in comparison to 2015 is due to lower interest on financing and higher interest on financial investments, both due to the increase in cash position of USD 339 million between the periods and the maintenance of a cash position in Reais which is greater than it was for the year 2015.

**PROFIT/LOSS**

In 2017, the Company had a net profit attributable to the shareholders of BRL 4,083 million against the net loss of BRL 411 million in 2016 (as a result of the provision for a fine relating to the Global Agreement and net profit of BRL 3,002 million in 2015.

c) Impact of inflation, price variation of the main inputs and products, exchange rate and interest rate in the operating result and in the financial result of the Company, when relevant.

The information related to this item 10.2(c) are described in item 10.2(a) (ii) of this proposal.

## 10.3 Past and expected events with material effects in the financial statements

### a) Launch or divestiture of a field of business

In the fiscal year ended on December 31, 2017, there has been no launch or divestiture of a field of business

In the fiscal year ended on December 31, 2016, due to the beginning of operations of Braskem Idesa S.A.P.I.'s ("Braskem Idesa") petrochemical plant, the Mexico plant started to be a reportable segment of the Company. This segment includes, in addition to Braskem Idesa's operating results, the results of other companies directly or indirectly controlled by the Company in Mexico.

In the fiscal year ended on December 31, 2016, with the company’s management decision to sell the assets of QuantiQ’s and its controlled company IQAG, the Company sold the Chemical Distribution field of business, as explained in item 10.3 (B) below.

**b) Creation, acquisition or disposal of ownership interest**

**<u>Cetrel</u>**

On January 27, 2017, the Company’s Board of Directors authorized the execution of a purchase agreement with Odebrecht Utilities S.A. (“Odebrecht Utilities”) by which the Company assumed the commitment to buy all shares held by the sellers in Cetrel S.A. (“Cetrel”), representing 63.66% of its voting and total capital for BRL 610 million.

On September 29, 2017, the Company’s Shareholders’ Meeting approved the conclusion of the purchase, and on October 2, 2017, the purchase of 1,269,290 shares issued by Cetrel was completed, with the payment of the agreed price of BRL 610 million, when the Company took control of it. The Company’s accounting policy in purchases of businesses under shared control is the “predecessor accounting”. The impact of the premium based on the accounting shareholders’ equity, in the amount of BRL 488.4 million, was recognized in the “shareholders’ equity” under “Equity Valuation Adjustments”.

On October 16, 2017, in an Special Meeting of Cetrel’s Board of Directors, Braskem elected the new Officers and, on October 25, 2017, the Special Meeting of Cetrel’s Shareholders appointed the new members of the Board of Directors and of the Fiscal Board.

**<u>quantiQ</u>**

After the authorization granted by the Board of Directors in a meeting held on January 9, 2017, the Company signed, on January 10, 2017, the agreement for the sale of Quantiq and its controlled company IQAG. This operation was approved by the Brazilian Antitrust Authority - CADE in the same month. Although the agreement was signed in January 2017, the consolidated financial statements of Quantiq and IQAG are presented as assets maintained for sale and discontinued operations, since the Company, on December 31, 2016, had received a firm offer from the buyers.

On April 3, 2017, the control was transferred to the buyer. On that same date, the Company received BRL 450 million. The balance of BRL 100 million will be received in up to 12 months and may suffer some adjustments that are usual in this type of operation. The capital gain in the operation was of BRL 277 million (Total income of BRL 550 million (-) net assets of BRL 273 million), registered in the second quarter of 2017.

**c) Extraordinary events or operations**

In 2017, there have been no extraordinary operations that have had an impact on the consolidated financial statements of the Company.

In 2016, the extraordinary operations that have had an impact on the consolidated financial statements of the Company were:

- costs with idleness corresponding to the installed and non-used capacity in the first months of operation of the controlled company Braskem Idesa, in the amount of BRL 139 million;
- leniency agreement provision in the amount of BRL 3,125 million already deducting BRL 272 million related to the adjustment to present value.

In 2015, the extraordinary operations that have had an impact on the consolidated financial statements of the Company were:

- costs and depreciation of the industrial unit located in the Petrochemical Complex of Capuava - Maua - São Paulo, which was not operating due to the incident in October 2015, in the amount of BRL 54 million;
- provision for loss of investment in the controlled company in Propisur, in the amount of BRL 112 million;
- depreciation and maintenance of non-operating plants, in the amount of BRL 98.5 million.

## *10.4 Material changes in the accounting practices - exceptions and emphases in the auditor's opinion*

### a) Material changes in accounting practices

There have been no material changes in accounting practices in the fiscal years ended on December 31, 2017 and 2016. However, in 2016, in the context of the "Lava Jato" (Car Wash) Operation, the Company received information on misappropriations of payments. Based on this information, it has been confirmed that payments were made between 2006 and 2014, as payment for services, without proof of the consideration. The identification of these payments led to the recognition, in October 2016, of taxes owed to the Federal Government and to other adjustments to the deferred income tax and social contribution. In accordance with Pronouncement CPC 23, the recognition of these obligations, considered as a rectification of a material mistake, was made retroactively to the 2015 Financial Statements and previous statements. Detailed information on this new delivery is disclosed in the Accompanying Notes 2.4, 23.3 and 35(b) of the 2016 Financial Statements.

### b) Material effects from changes in accounting practices

As described in item 10.4(a) of this document, and except for the new delivery due to the mistake described in the same item above, there have been no material changes to the Company's accounting practices in 2017 and 2016.

### c) Exceptions and emphases in the auditor's opinion

**Comment on the independent auditors' report 2017**

The report of the independent auditors on the Company's financial statements for the year ended December 31, 2017, did not contain any qualifications or emphasis of matter paragraph.**Comment on the independent auditors' report 2016**

The emphasis presented in the independent auditors’ report is related to the Car Wash Operation, which confirmed the existence of undue payments made by the Company between 2006 and 2014, as payment for services provided by third parties, without proof of the consideration. (Accompanying Note 23.3 of the 2016 Financial Statements).

**Comment on the independent auditors’ report 2015**

The emphasis on the independent auditors' report was related to the internal investigation and collective action filed before a United States' Court during the fiscal year. (Accompanying Note 23.3(d) of the 2015 Financial Statements).

## *10.5 Critical Accounting Policies*

Are considered critical accounting policies those that require that the Management perform estimates, judgments, and define premises based on the historical experience that may affect the values reported in the financial statements.

We highlight the following critical policies that require subjective or complex judgements that affect the result:

- **Deferred income tax and social contribution**

The recognition and the amount of active deferred taxes depend on the future generation of taxable income, which required the use of estimates related to the Company's future performance. These estimates are in the business plan that is prepared every year by the Executive Office and submitted to the Board of Directors' approval. This plan has as main variables the projection of prices of products manufactured by the Company, the price of raw materials, growth of the gross domestic product of each country where the Company operates, exchange variation, interest rate, inflation rate, and fluctuation of the offer and demand for inputs and finished products. These projections are made based on specialized external advice and on the Company's historical performance.

The information on the deferred income tax and social contribution are presented in the Accompanying Note 21 of the 2017 Financial Statements.

- Fair value of the derivative and non-derivative financial instruments

The Company values the financial derivatives by their fair value, using as main source of data the stock exchanges, the disclosures made by the Central Bank of Brazil, and the quotation services, such as Bloomberg and Reuters. It should be stressed that the volatility of the exchange markets and of the interest in Brazil has been causing material changes to the future rates and to the interest rates in short periods of time, causing material variation to the fair value of swaps and other financial instruments.

The fair value of publicly-traded non-derivative financial instruments are based on current purchase prices. If the market of a financial asset and of bonds not listed in stock exchanges is not active, the Company sets the fair value using valuation techniques. These techniques include the use of recent operations with third parties, reference to other instruments that are materially similar, the analysis of discounted cash flows or pricing models for options that use the largest possible amount of information generated by the market and rely, the least possible, on information generated by the Management of the Company.

The information on the derivative and non-derivative financial instruments are presented in the Accompanying Note 19 of the 2017 Financial Statements.

- Useful life of assets

The Company recognizes the depreciation and exhaustion of its long-duration assets based on the estimate of useful life of the assets, defined by independent experts and ratified by the Company's technicians with experience in managing the Company's plants. The useful lives initially defined by the independent experts are usually revisited in the end of each fiscal year by the Company's technicians, to verify the need to change them. This review may occur during the fiscal year due to extraordinary events.

The main factors that are taking into consideration to determine the useful life of the assets that form the Company's industrial plants are manufacturers' information on the machines and equipment, the plants' level of operation, the quality of preventive and corrective maintenance, and the perspectives of technological obsolescence of the assets.

The Management of the Company has also decided that (i) the depreciation must cover the total value of the assets, considering that the equipment and facilities, when removed from the operation, are sold for absolutely immaterial prices; and (ii) the lands are not depreciated because their useful life is undefined.

The information on the fixed assets are presented in the Accompanying Note 13 of the 2017 Financial Statements.

- Recoverability analysis and test

(i) Tangible and intangible asset with finite useful life

On the date of each financial statement, the Company analyzes the existence of indicators that the accounting balance of long-duration tangible assets and intangible assets with a finite useful live may be not recoverable. This analysis is made to verify if there are scenarios that could have a negative impact on the Company's cash flow, and the consequent recovery of sums invested in such assets. These scenarios derive from macro-economic, legal, competition or technological matters.

The Company takes into account relevant topics to be considered in this analysis: (i) the possibility of excess in offer of products manufactured by the Company or material reduction of demand due to adverse economic factors; (ii) perspective of material oscillations in prices of products and inputs; (iii) possibility of new technologies or raw materials appear, which may cause a relevant reduction of the production cost and, as a consequence, may have an impact on the sales price, ultimately causing the total or partial obsolescence of the Company's industrial complex; and (iv) changes to the regulatory environment in general, which make the Company's production process unfeasible, or that have a material impact on the commercialization of its products. For that analysis, the Company has its own team, which has a more strategic view of the business, in addition to being in constant contact with external consultants. If the variables mentioned indicate material risks for the cash generation, the Management of the Company performs the recoverability test, as described in the Accompanying Note 3.4(b) of the 2017 Financial Statements.

(ii) Intangible asset with indefinite useful life

The balances of future profitability premiums derived from business combinations are tested annually to measure the recoverability. These tests are based on the 5-year projection of cash generation, taken from the Company's business plan, mentioned in the Accompanying Note 3.1 of the 2017 Financial Statements. In addition to the projected cash flow for 2017 to 2021, the perpetuity based on the long-term view is also calculated, without considering the growth in real terms for this calculation. The cash flows and the perpetuity are brought to preset value by a discount rate based on the Weighted Average Cost of Capital ("WACC").

The premium allocated to the Polyolefins field of business (Accompanying Note 14(a) of the 2017 Financial Statements) was generated in a business combination that led to the simultaneous purchase of polypropylene and polyethylene plants. The main raw materials of these plants were already supplied by the Company, which enabled relevant synergies in the operation. These synergies were one of the main driving forces of that purchase. Because of this, the Management of the Company evaluates the recoverability of this premium within the field of business, since the benefits of the synergy are related to all units purchased.

The other existing premiums are allocated to UGC Químicos Sul and in the Vinyl field of business (Accompanying Note 14 of the 2017 Financial Statements).

The premiums on future profitability are presented in the Accompanying Note 14 of the 2017 Financial Statements. This Accompanying Note also presents the results of the impairment test.

• Contingencies

The contingent liabilities and existing provisions are mainly related to judicial and administrative discussions mostly derived from labor, social security, civil and tax proceedings.

The Management of the Company, based on the opinion of its external legal advisors, classifies these proceedings in term of their chance of loss, as follows:

Probable Loss - proceedings where the chance of losing is higher than the chance of winning or, in other words, the chance of loss exceeds 50%. For these proceedings, the Company maintains an accounting provision that is assessed as follows:

(i) labor proceedings - the provisioned amount corresponds to the expenditure estimated by the Company's legal advisors;

(ii) tax proceedings - the provisioned amount corresponds to the amount involved, in addition to the charges corresponding to the SELIC rate variation; and

(iii) other proceedings - the provisioned amount corresponds to the amount involved.

Possible loss - proceedings whose chance of loss is more than remote. The loss can happen, however the elements available are not sufficient or clear enough to allow the conclusion that the tendency is to win or lose. In percentage, the possibility of loss is between 25% and 50%. For these proceedings, except for cases derived from business combinations, the Company creates no provisions and highlights the most relevant ones in an accompanying note (Accompanying Note 23.2 of the 2017 Financial Statements). In

business combinations, in compliance with CPC 15 and IFRS 3, the Company registers the fair value of these proceedings with the chance of loss. The provisioned amount corresponds to the amount involved, in addition to the charges corresponding to the SELIC rate variation, times the percentage of the probability of loss, defined by external legal advisors.
The Management of the Company believes that estimates related to the conclusion of the proceedings and the possibility of future expenditures may change due to: (i) higher courts may decide similar cases involving another company, adopting a final interpretation of the case and, consequently, anticipating the end of the proceeding involving the Company, without any disbursement, or leading to the need to settle the proceeding; and (ii) programs to incentive the payment of debts, implemented in Brazil by Federal and State Governments, in favorable conditions, which may lead to an expenditure lower than the provision or the amount involved.

The Company's contingencies are presented in the Accompanying Note 23 of the 2017 Financial Statements.

- Hedge accounting

The Company designated liabilities in foreign currency to protect the cash flow generated by its exports. This decision was based on two important concepts and judgements: (i) the realization of exports included in its business plan (Accompanying Note 3.2 of the 2017 Financial Statements), which are inherent to the market and business where it operates, and (ii) the Company's ability to refinance its liabilities in Dollar, since the priority financing in Dollar is a part of the Company's orientation and strategy. In addition to the ability to refinance its liabilities in Dollar, the Company's Financial Policy provides for the maintenance of a minimum level of net liabilities in Dollars.

The controlled company Braskem Idesa designated all the funds obtained for the construction of its industrial plant to the protection of a portion of the sales, which will be realized in the same currency as the financing, the U.S. Dollar. The sales estimates are contemplated in the project that was presented to the banks/lenders that, due to the consistency of projections, granted a loan to Braskem Idesa that will be exclusively paid with the cash to be generated by these sales. All these commercial considerations of the project are backed by market studies made by specialized consulting companies during the analysis of its feasibility.

All of the Company's hedge operations are in accordance with the accounting practices and procedures adopted by the Company, and every quarter effectiveness tests are performed for each operation, proving the effectiveness of its hedge strategy.

The Company has determined that the subject of the hedge, both for the Controlling Company and for the controlled company Braskem Idesa, will be characterized by the first sales in Dollars made in every quarter up to the amount defined in each period (Accompanying Note 19 of the 2017 Financial Statements). The liabilities designated for hedge are aligned with the maturity schedule of the hedge and with the Company's financial strategy.

In accordance with the Financial Policy, the Company may enter into financial derivatives agreements (swaps, NDFs, options, etc.) to protect itself from unwanted variations of currencies and fees. These derivatives may be designated for hedge accounting in accordance with the Management's judgement and

whenever it is expected that the investment will cause a material improvement in the demonstration of the compensatory effect over the variations of the hedge items.

## *10.6 Relevant items not evidenced in the Financial Statements.*

**a) The off-balance-sheet assets and liabilities directly or indirectly owned by the Company**

In the fiscal year ended on December 31, 2017, there were no relevant items not evidenced in the Company's financial statements related to:

- Operating leases, assets and liabilities;
- Derecognized receivables portfolios over which the entity holds risks and responsibilities;
- Agreements for future purchase and sale of products or services;
- Future financing commitment agreements.

**b) Other off-balance-sheet items**

There were no relevant items not evidenced in the Company's financial statements on December 31, 2017. It should be stressed that with the Leniency Agreement signed by the Company, the Federal Prosecutor's Office in Brazil, the DOF and SEC in the United States, and by the Prosecutor's Office in Switzerland, in the approximate amount of BRL 3.1 billion, the Company paid, during the fiscal year of 2017, the approximate amount of BRL 1.3 billion (Accompanying Note 23.3 (a) of the 2017 Financial Statements).

## *10.7 Comments on items not evidenced in the financial statements*

**a) How such items affect or are likely to affect the income, expenses, operating results, financial expenses or other items on the issuer's financial statements**

It is not possible to foresee or measure now the extension of the financial and non-financial impacts, if any, of the execution of the Leniency Agreement with authorities in Brazil, in the United States and in Switzerland besides the value of BRL 3.1 billion of said Agreement, already mentioned before. The Agreement may cause a material adverse effect on the business, reputation, financial situation and results of the Company's operations, as well as on the liquidity and price of the securities issued by the Company. We also stress that it is not possible to foresee the impacts on the Company derived from other investigations, rulings or proceedings filed by the authorities involving the Company's main shareholders, Odebrecht and Petrobras, or any of its controlled companies.

**b) The type and purpose of the transaction**

There were no relevant items not evidenced in the Company’s financial statements on December 31, 2017.

**c) The type and extent of obligations undertaken by and rights generated to the issuer as a result of the transaction**

There were no relevant items not evidenced in the Company’s financial statements on December 31, 2017.

# *10.8 Business Plan*

**a) Investments**

The Company, following its medium and long-term growth plan and aligned with its strategy to diversify its raw material matrix, has implemented several projects, and we highlight the following:

**a quantitative and qualitative description of current and expected investments**

**Project Mexico, Ethylene XXI:**

In the context of the internationalization strategy and access to competitive raw materials, in the fiscal year ended on December 31, 2016, the Company reached an important milestone with the beginning of operations of the petrochemical complex in Mexico, in a partnership with the Mexican group IDESA, holding 75% and 25% interest respectively. Located in the state of Veracruz, in the Coatzacoalcos region, the Ethylene XXI project contemplates the production of approximately 750 thousand tons of high-density polyethylene and 300 thousand tons of low-density polyethylene from ethane, and it is based on an agreement entered into with PEMEX-Gás for the supply of 66,000 barrels/day of ethane for 20 years, with its reference price being the North American gas (Mont Belvieu).

In March 2016, the cracker was initiated and the ethene specification occurred; in April 2016, the first PE plant started its operation; and in June 2016, the three polyethylene plants were already operating.

The investment totaled USD 5.2 billion, of which (i) USD 3.2 billion came as project finance and (ii) USD 2 billion as shareholders' investment.

**UTEC® Project**

The Company's new production line of ultra-high molecular weight polyethylene (UHMWPE), commercially known as UTEC® began its operation in January 2017.

Located in the city of La Porte, state of Texas, in the United States, the production from this plant will complement the capacity of the already-exiting line in Brazil, in the petrochemical complex of Camaçari. With 100%-Brazilian technology, the UTEC® resin has sophisticated applications in several industries, such as automotive and transportation, electronics, fibers and textiles, heavy industry and machines, material handling, oil and gas, pipelines and mining, porous plastics, recreation, and for the end consumer.

The main market for the production of the La Porte UTEC® plant is the North-American market, but the company expects, in the future, to export resin for destinations such as

Europe, India and China. The beginning of this plant's operations strengthens the Company's position as one of the biggest UHMWPE producers in the world.

**Raw material flexibilization project in Bahia**

Raw material flexibilization in Bahia

Aligned with the Company's strategy, which looks for alternatives sources of raw materials to increase its global competitiveness, in November 2017, the flexibilization for production of up to 15% of ethene using ethane as raw material began in the petrochemical complex in Bahia.

For the raw material supply, the Company signed an agreement for the purchase of ethane from the United States from an affiliated company of Enterprise Products. The term of the agreement is of 10 the years, and the price is based on the international reference of Mont Belvieu.

BRL 380 million have been invested in the technological adaptation of the Chemicals Unit in Camaçari, in the pipeline and in the adaptation of the logistics infrastructure of the Dock-Terminal of Aratu, in Candeias.

**Debottlenecking of the capacity in the Marcus Hook plant, USA**

Aligned with the strategy of expanding to international markets and to meet its clients' needs, in 2016, the Company invested approximately USD 21 million in the debottlenecking of the production capacity of the Marcus Hook/PA PP plant, increasing its nominal capacity in 64 thousand tons per year. The scope of the project included improvements to the propene purifier and in the resin production areas of the plant.

**New PP plant in the United States**

Aligned with the strategy to diversify the raw materials matrix and geographic expansion in the Americas, reinforcing the leadership in the PP production in the United States, the Company's Board of Directors approved, on June 21, 2017, the project to build a new PP plant of 450 thousand tons at the La Porte site, in the American state of Texas. The beginning of the project's operation is expected for the second quarter of 2020.

With an approved investment of up to USD 675 million, in 2017 the Company already invested USD 172 million in the engineering project detailing and in the purchase of equipment. In 2017, the project has a 9%-advance: 67% of the engineering and 43% of the purchases were completed, and the place began to be prepared for the construction and assembly of temporary facilities. It is worth highlighting that Linde Group was hired to lead the EPC of the project and the choice of Grace's UNIPOL® technology.

**Current investments and other strategic projects:**

In 2017, the Company's units in Brazil, in the United States and in Europe invested BRL 1,760 million, aligned with the initial projection for 2017. The units in Brazil were 3% below the estimation due to the reduction of expenses with the purchase of equipment, the appreciation of Real in the expenses in Dollar and the change to the projects schedule. In Dollars, due to the Real appreciation compared to the exchange fee expectation for the year, the investments were 6% higher than expected. The United States and Europe units were 41% above the estimate in Dollars due to investments made and not expected, such as the purchase of logistics wagons for PP transportation in the United States. Considering the investment in the construction of the new PP plant in the United States, in the amount of BRL 532 million, the total investment of the Company's units in Brazil, in the United States and in Europe totaled BRL 2,293 million. In the same period, Braskem Idesa invested BRL 22 million, 58% less than expected for the year, as a result of the optimization of the investment portfolio, which led to the postponing/cancellation of some projects.

In 2016, the Company invested a total of BRL 2,975 million. Excluding from the analysis the Company's contributions to the Mexico project, the investment was of BRL 1,780 million. From this sum, BRL 1,439 million or approximately 81% of the total were directed to the industrial operations (BRL 107 million in the United States and Europe, equivalent to USD 33 million), including investments related to operational efficiency, HSE, productivity and modernization. The remaining BRL 341 million (BRL 244 million in the United States and Europe, equivalent to USD 72 million) were directed to the strategic projects, such as (i) the investment in the production of UTEC® in La Porte, USA, (ii) the investment to diversify raw materials in the Bahia cracker, and (iii) investments to improve the industrial productivity of the PP plants located in the USA and in Germany, as mentioned above.

In 2015, the Company invested a total of BRL 2,376 million. Excluding from the analysis the Company's contributions to the Mexico project, the investment was of BRL 1,272 million. From this sum, BRL 1,174 million or approximately 90% of the total were directed to the industrial operations (BRL 214 million in the

United States and Europe, equivalent to USD 64 million), including investments related to operational efficiency, HSE, productivity and modernization. The remaining sum was directed to other projects, such as the investment in the production of UTEC in La Porte, USA, as mentioned above.

**2018 Investments**

The Company will invest approximately BRL 2,872 million this year, from which BRL 1,047 million are linked to the Dollar (USD 320 million), regarding operating investments in the United States, Europe and Mexico units.

From this sum, BRL 1,987 million will be directed to investments related to the maintenance, productivity, HSE, and operational efficiency, including disbursements with the scheduled stop of the cracker in Triunfo, Rio Grande do Sul, expected for the 1Q18. The remaining balance will be directed to other strategic projects, such as the investment in the new PP plant in the USA (USD 263 million).

Braskem Idesa will invest approximately USD 42 million (BRL 137 million) in projects related to maintenance, productivity, HSE and operational efficiency.

**(ii) sources of investment financing**

The Company tries to follow its investment plan, preferably with credit lines from national and international government officials (including funding financial institutions, such as those described in item 10.1(f) of this proposal, in sub-item “loans from BNDES to incentive development”), since these officials, in general, offer less onerous conditions for the Company.

The investment that are not eligible for these sources of funding will be funded by (i) the cash flow from the Company’s operating activities or (ii) other sources, such as loans and financing (such as those described in all other sub-items of item 10.1(f) of this proposal).

**(iii) material divestments in progress and planned divestments**

There are no material divestments processes in progress and/or planned.

**New products and services**

In the end of the fiscal year ended on December 31, 2017, 15 new resin grades were added to the Company’s portfolio, with the following applications:

**(i) description of research in progress and already disclosed**

The Company continues its efforts to develop solutions for products using renewable raw materials by means of internal projects and partnerships. In 2017, the Company signed a technical cooperation agreement with the Danish company Haldor Topsoe to develop a pioneer route for the production of monoethylene glycol (MEG) from sugar. The focus will be to convert the sugar into MEG in a single industrial unit, with the purpose of reducing the initial investment and boost the process competitiveness. The partnership includes the construction of a demonstration unit in Denmark, with the operations expected to begin in 2019.

**(ii) total expenditures in research activities for new products or services**

In the last three fiscal years, the Company spent the following sums in researches for the development of new products or services:

58

| | Fiscal year ended on | | |
|---|---|---|---|
| | **12/31/2017** | **12/31/2016** | **12/31/2015** |
| **Expenses with R&D** | BRL 167 million | BRL 162 million | BRL 176 million |

(iii) projects in progress and already disclosed

- HDPE for carbonated drinks caps; high density polyethylene developed for carbonated drinks caps, such as soft drinks and sparkling mineral water, approved for use by the biggest brands in the market, as well as by the caps manufacturers, which are Company’s clients in this segment.
- HDPE for mineral water caps: with excellent organoleptic properties that do not interfere with the flavor and smell of the mineral water, a new resin for caps of this type of beverage was launched with the approval of the biggest brands of the Brazilian market.
- EVA for soles: resin developed for shortening control and with excellent smooth touch for the shoe industry, properties that make the final product lighter and more comfortable.
- EVA for sandals: Resin developed for single block sandals with good abrasion and grip, in addition to the soft touch, aiming at a better performance and more comfort.
- PP for bi-oriented packages: focusing on the increase of productivity, with less variation of the thickness profile of the BOPP film, the grade was launched for application in flexible packages. The new product is already being used by large companies in the Brazilian market.

(iv) Total expenditures in development of new products or services

In the last three fiscal years, the Company invested the following sums in the development of new products or services:

**Fiscal year ended on**