

# Steadfast towards a sound future



**2016** Annual Report

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Vitro's companies design, produce, process, distribute and market a wide range of glass products that are part of everyday life of thousands of people worldwide.



# Our Company

Vitro is an important leading glass manufacturer; over 100 years of experience in the industry support its products and services’ quality. The Company of Glass has transcended throughout its history due to its commitment.

Founded in 1909 in Monterrey, Mexico, the Company owns over 20 subsidiaries in the American continent and Europe, through which it offers quality products and reliable services to meet the needs of two business sectors: glass containers and flat glass.

Vitro’s companies design, produce, process, distribute and market a wide range of glass products that are part of everyday life for thousands of people worldwide.

Vitro offers solutions for multiple markets such as cosmetics and pharmaceuticals, as well as the automotive and architectural, with cutting-edge technology and high added value products.

The Company provides chemical products and raw materials for its use in several industries and/or markets, such as glass, detergents, water treatment, oil, roads and highways’ thawing, food for human consumption and the poultry and livestock segment. Likewise, it manufactures molds, machinery and equipment, and supplies engineering and special services, as well as automatizations; in addition to having a 49.7 percent stake in Empresas Comegua, S.A. in Central America.

As a Socially Responsible Company, Vitro assumes its social commitment and develops several initiatives under the Vitro Sustainability Model’s framework aiming to exert a positive influence and contribute to economic, social and environmental development in order to benefit its stakeholders and environment, through a responsible corporate management.

# Vitro’s Philosophy

With over a century of experience in the glass industry, Vitro is sustained on firm foundations and is projected as a strengthened company, offering reliable, state-of-the-art products and services. Vitro Values are the pillars that keep it on the path of profitability and value generation, which will lead to a sound future.

# Mission

Provide efficiently the best solutions in products and services to the industries in which it participates in order to create value for its clients, shareholders, employees, suppliers and the communities where it operates.

# Vision

To achieve, in the next five years, higher sales values, cash flow generation and capitalization than prior to the disinvestment of the containers division. In five years our businesses will have a more solid strategic position, and jointly with major competitive advantages and a robust business model, we will be recognized as an innovative company in the industries where we participate.

# Values

- **Innovation:** Enhance processes and operations with new ideas to consistently improve our results.
- **Team Work:** Unite talent to work as a single force.
- **Operational Excellence:** Always surpass what is expected from us.
- **Customer Orientation:** Our customers are the focal point of our business.
- **Integrity:** Always act with honesty and adherence to our principles.



# Global Presence

With 107 years of experience in the industry, Vitro occupies a leading position as a glass manufacturer in Mexico and the world. The Company's prestige derives from its products and services, as well as a wide range of leading brands in the market. Through its solid and close business relationship with the leaders of each market it serves, its products reach at least 58 countries worldwide and has operating and marketing facilities in 13 countries of the American continent and Europe.

## OUR MAIN COMPANIES

VITRO, S.A.B. DE C.V.

- Vitro Flotado Cubiertas
- Productos de Valor Agregado en Cristal

### CONTAINERS

#### Glass containers

- Vitro Packaging, LLC <sup>(2)</sup>
- Servicios Integrales de Acabados

#### Machinery and Molds

- Machinery manufacturing

### FLAT GLASS

- Viméxico

#### Architectural Sector

- Vitro Flat Glass, LLC <sup>(2)</sup>
- Vitro Flat Glass Canada, Inc. <sup>(3)</sup>
- Vitro Vidrio y Cristal
- Vidrio y Cristal del Noroeste
- Vidrio Plano de Mexicali
- Vidrio Plano de México
- Vidrio Plano de México LAN

#### Automotive Sector

- Vitro Automotriz
- Vitro Automotive Glass, LLC <sup>(2)</sup> (before Vitro Flat Glass Holdings)
- PGW Holdings, LLC <sup>(2)</sup>
- Pittsburgh Glass Works, LLC <sup>(2)</sup>
- KPGW European Holdco, LLC <sup>(2)</sup>
- Pittsburgh Glass Works, GmbH <sup>(4)</sup>
- PGW Technic GmbH <sup>(4)</sup>
- Pittsburgh Glass Works, Sp.z.o.o <sup>(5)</sup>
- Pittsburgh Glass Works, S.a.r.l. <sup>(6)</sup>
- Shandong PGW Jinjing Automotive Glass Co Ltd <sup>(7)</sup> (Joint investment)
- Cristal Laminado Templado, S.A. de C.V. (Joint investment)
- Vitrocar
- Cristales Automotrices (In association with the Posselt family, who holds 49%)

- VVP Autoglass
- Vitro Colombia <sup>(1)</sup>
- Vitro Do Brasil Industria E Comercio

#### Chemicals and Raw Materials

- Distribuidora Álcali
- Industria del Álcali
- Comercializadora Álcali
- Vitro Chemicals <sup>(2)</sup>

(1) Company with operations in Colombia.  
(2) Company with operations in USA.  
(3) Company with operations in Canada.  
(4) Company with operations in Germany.  
(5) Company with operations in Poland.  
(6) Company with operations in Luxemburg.  
(7) Company with operations in China.

## PRODUCTS' MAIN DESTINATIONS

Mexico	Israel	South Africa
United States	Chile	Netherlands Antilles
Colombia	Egypt	Qatar
Brazil	Poland	Nicaragua
Peru	Malaysia	Jamaica
Canada	Italy	Dominican Republic
Guatemala	Bolivia	Portugal
Belgium	Turkey	Greece
Argentina	Spain	Barbados
Germany	France	Belize
Switzerland	Lebanon	Bulgaria
Arab Emirates	Panama	Philippines
Hungary	Cuba	Netherlands
Australia	United Kingdom	India
China	Singapore	Morocco
Ecuador	Japan	Uruguay
Venezuela	Saudi Arabia	Thailand
Puerto Rico	Vietnam	Trinidad and Tobago
Costa Rica	El Salvador	
South Korea	Rumania	

## OUR FACILITIES

- Mexico
- United States
- Germany
- China
- Poland
- Canada
- Colombia
- Brazil
- Guatemala
- Ecuador
- Costa Rica
- Peru
- Venezuela



# Financial Highlights

Vitro S.A.B. de C.V. and Subsidiaries

Financial highlights

(Figures in millions of Mexican pesos under IFRS; except otherwise indicated; dollar amounts are in million of US dollars).

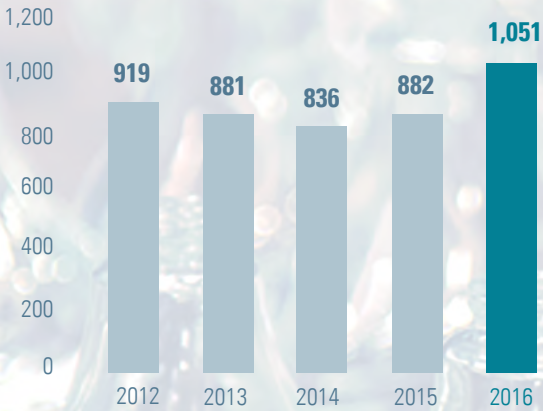
December 31,						
	US\$ <sup>(1)</sup>		%	\$ Ps <sup>(2)</sup>		%
	2016	2015	variation <sup>(3)</sup>	2016	2015	variation <sup>(3)</sup>
Income Statement						
Consolidated Net Sales	\$ 1,051	\$ 882	19.2	\$ 19,840	\$ 14,127	40.4
Domestic	606	598	1.4	11,344	9,588	18.3
Export	272	259	5.0	5,070	4,145	22.3
Foreign Subsidiaries	173	25	596.0	3,426	394	769.1
Operating Income before Other Expenses (EBIT)	201	141	42.7	3,779	2,263	67
Net Income	189	1,445		3,566	24,188	
Net Income of Majority Interest	192	1,411		3,618	23,600	
Net Income of Majority Interest per share <sup>(4)</sup>	0.40	2.92		7.49	48.85	
EBITDA <sup>(5)</sup>	259	193	34.7	4,890	3,090	58.3
Balance Sheet						
Total Assets	2,203	1,606	37.0	45,431	27,732	63.8
Total Liabilities	1,005	439	128.4	20,715	7,588	173.0
Stockholders' Equity	1,199	1,167	2.6	24,716	20,144	22.7
Stockholders' Equity of Majority Interest	1,198	1,083	10.5	24,698	18,692	32.1
Financial Indicators						
Debt / EBITDA (times)	2.0	0.0		2.2	0.0	
Net Debt <sup>(7)</sup> / EBITDA (times)	1.1	(2.1)		1.2	(2.3)	
Interest Coverage (times) (EBITDA / Total Net Financial Expense)	22.9	2.2		21.6	2.2	
EBIT Margin (%)	19.1	16.0		19.0	16.0	
EBITDA Margin (%)	24.7	21.8		24.6	21.9	
Employees	11,407	10,744	6.2	11,407	10,744	6.2
Capital Expenditure <sup>(6)</sup>	127	85	49.3	2,154	1,373	56.9

(1) Dollar figures reported herein are in nominal dollars; obtained from dividing each month's nominal pesos by the exchange rate at the end of the same month.  
(2) Financial data is presented in nominal pesos.  
(3) Variation from 2015 to 2016.  
(4) Based on the weighted average of shares outstanding.  
(5) EBITDA = Earning before other, interest, taxes plus depreciation and amortization, and provision for employee retirement obligations.  
(6) Represents the capital expenditures carried out during the year, for which it differs from investments presented in the cash flow.  
(7) Debt net to cash and equivalents.  
Financial statements were prepared according to International Financial Reporting Standards (IFRS).

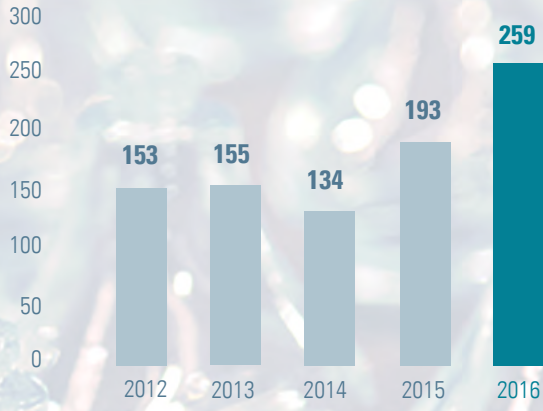


Dollars

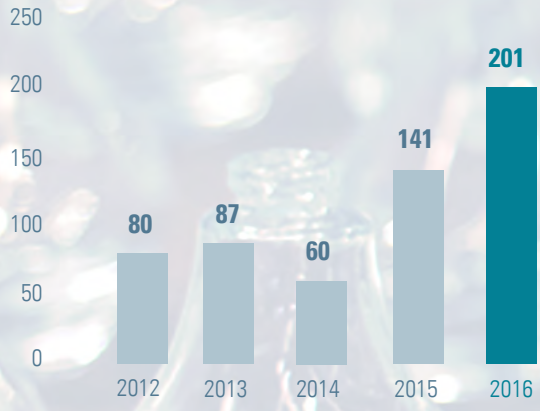
CONSOLIDATED NET SALES  
(Million dollars)



CONSOLIDATED EBITDA  
(Million dollars)



OPERATING INCOME BEFORE OTHER  
EXPENSES (EBIT) (Million dollars)



Pesos

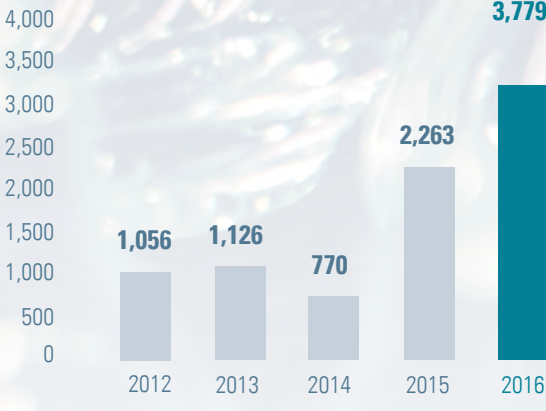
CONSOLIDATED NET SALES  
(Million pesos)



CONSOLIDATED EBITDA  
(Million pesos)



OPERATING INCOME BEFORE OTHER  
EXPENSES (EBIT) (Million pesos)







# Message from the Chairman of the Board of Directors

Dear Shareholders,

2016 presented challenging macroeconomic conditions, especially in some regions where we participate. However, in spite of these scenarios, our share price reflected positive results, achieving a yield of 19 percent on average, during the year.

After several years of implementing financial and operational strategies to position Vitro as a strengthened company, I am pleased to inform that we have laid the groundwork to lead Vitro into a sound future, with well-defined organic growth and new acquisitions that will enable us to achieve our goal of generating value for you and all our stakeholders.

During the second half of the previous year, Vitro announced the signing of a contract to buy PPG's flat glass business assets. On September 21, 2016, at the General Ordinary Shareholders' Meeting, the acquisition of the PPG Flat Glass and Glass Coating business was approved for US\$ 755 million minus the existing debt at the sale's completion and executing the applicable adjustments for this type of transaction.

At this Meeting, the obtaining of bank financing to pay part of the operation's price was also approved, since the remainder was covered with cash available as a result of the divestment of the Food and Beverage Containers business we made in 2015. This allows us to continue with a healthy balance once the transactions have been carried out.

The credit agreement was executed by Vitro Flat Glass, LLC, Vitro's subsidiary in the United States as an accredited company and by Vitro as a joint obligor and guarantor with Banco Inbursa, S.A., Multiple Banking Institution, Grupo Financiero Inbursa, for an amount of US\$ 500 million with a maturity of seven years.

In addition, on December 19, 2016, Vitro announced the signing of a definitive agreement to acquire the business of automotive glass for original equipment of Pittsburgh Glass Works (PGW), owned by LKQ Corporation for US\$ 310 million.

For this negotiation's financing, US\$ 80 million was allocated from our own resources and US\$ 230 million from a loan granted by BBVA Bancomer, simultaneously signed with this agreement.

Having obtained both credits with commercial banking demonstrates the bank's confidence and certainty in the decisions that the administration has taken.

The aim of maintaining a solid balance sheet is still in force, Vitro's pro forma leverage after executing both operations is 1.7x Debt / EBITDA and 1.3x Net Debt / EBITDA. Our efforts will be focused on achieving synergies with both recent acquisitions in a way that helps generate the necessary flow to maintain the leverage at optimum levels.

## GENERAL OVERVIEW

The macroeconomic conditions were unfavorable for several industries worldwide; Vitro provides its products and services to some of them. The caution shown by industrial sectors when making investments and planning their production, caused a significant decrease.

Locally, growth was weak; the forecasts issued by official institutions and economic analysts were above the facts. During 2016 some downward adjustments had to be made, caused by factors that affected not only Mexico, but all the world. In Mexico, GDP

growth closed at 2.3 percent, according to the Economic Information Bank of the National Institute of Geography and Statistics (INEGI), against 3.6 percent that had been forecast at the beginning of the period.

The international price of oil remained unstable, continuing mostly downward, coupled with overproduction.

Likewise, the depreciation of the Mexican peso against the US dollar, which reached 19.5 percent at the close of 2016, was another factor that affected the economy of Mexico and other Latin American countries, with which we have commercial activities.

## WELL-DEFINED STRATEGIES FOR A SOUND FUTURE

Even though in 2016 a very complex economic environment prevailed, both locally and internationally, the Company's decisions over the last few years have set the tone to sustain our growth on strong foundations and offer you the certainty that we strive for a sound future.

The dynamic behavior's analysis displayed by the construction and automotive industries in recent years—two areas in which we actively participate with our products and services— support the investment decisions we made in 2016 for the Company's growth and profitability.

Through the acquisition of the PPG Flat Glass and Glass Coating business, coupled with our history, we have over 200 years of experience in glass production. The relevance of this operation began appearing in the Company's results in the last quarter of 2016; therefore, we endorse the commitment with our shareholders and all stakeholders to create value.

The aforementioned positions Vitro as the leader in North America in the architectural glass market, not only in capacity and sales, but also in research and technological development in this area.



Moreover, the acquisition of the Pittsburgh Glass Works (PGW) automotive glass for original equipment business, as well as organic growth, will allow us to continue to strengthen our financial and operating position.

It is noteworthy that the positive results obtained are a clear indication that the implemented strategies have been accurate, Vitro's management has instituted successful expenditure and cost control programs that counteract the effects of external factors that could impact its performance.

SUSTAINABLE DEVELOPMENT

Since its inception, all of Vitro's actions have been aimed at achieving a comprehensive balance between the generation of economic value and the stakeholders' well-being; thus, Sustainable Development is one of its priorities.

In 2016, Vitro received the Socially Responsible Company distinction granted by the Mexican Center for Philanthropy (Cemefi) for the ninth consecutive year. In addition, it was also recognized as one of the best companies to work in, since it carries out programs and practices that promote respect, credibility, trust and fellowship.

Additionally, the Company continuously carries out social, cultural, sport, educational and environmental conservation activities, in which its employees, families and the community are closely involved.

CORPORATE GOVERNANCE

Vitro fully adheres to the legislation that is responsible for a sustainable business' best performance and maintains complete compliance with the highest standards of corporate governance; even exceeding the compliance required by established regulations.

In 2016, the Board of Directors was comprised by 12 members, of whom 42 percent are independent, a higher percentage than that required by Mexican law.

Among the main functions of Vitro's Board of Directors is the establishment of strategies, policies and guidelines for conducting its business and the legal entities it controls, as well as monitoring its work with the supervision of its management and execution.

12 years ago, Vitro established the Code of Business Conduct and Corporate Ethics –a tool to manage and monitor the actions of the company and its members in order to ensure that all decisions are taken within a framework of transparency and corporate ethics, guaranteeing that no law or internal policy is breached–.

To support the aforesaid, the Company uses the Anonymous Complaints System (SDA), a system through which irregularities may be reported anonymously if any employee, supplier and/or client violates current policies and procedures.

2017 OUTLOOK

The global outlook for 2017, particularly for Latin America, continues to be challenging; expectations are that growth will be moderate or remain the same as the previous year.

In Mexico there is also uncertainty, although some analysts argue that if the domestic consumption trend continues to increase as in 2016 and the United States industrial recovery endures, as long as the United States trade policies do not drastically change the economy, our country could experience a growth between 1.5 and 2 percent.

However, we are prepared to face new challenges, today we are in an excellent position, we are a stronger financial and operational Vitro.

The positive results obtained are a clear indication that the implemented strategies have been accurate.

Going forward, our goal is to execute the projects and businesses that we have carried out, as well as to obtain the synergies expected from them. We will continue to be proactive to discover new export markets, you can be certain that we are determined to lead Vitro towards a sound future.

Dear shareholders, on behalf of the Board of Directors, thank you for your trust and support; we reaffirm the commitment to stay on the course we have set towards profitability and value creation for all our stakeholders.

Kind regards,



**Adrián Sada González**  
Chairman of the Board of Directors  
March 14, 2017



## Message from the CEO

Dear Shareholders,

I am proud to inform that 2016 was an outstanding year for Vitro, in which, despite a difficult environment with volatile markets and uncertainty in many areas, our company achieved great expansion and transformation.

Once again we improved our EBITDA, reporting US\$ 259 million, which represents an increase of 34.7 percent against US\$ 193 million in 2015; this is the seventh consecutive year that the strategy we have designed for the Company reveals positive results.

Our actions are aimed at achieving a superior dimension in sales value, flow generation and capitalization value than we had before selling the Food and Beverage Containers business.

We overcame the challenging conditions that prevailed over the past year, which posed external hardships, such as continued instability in international oil prices and a 19.5 percent depreciation of the Mexican peso against the US dollar, among other factors.

In the second half of 2015 we initiated the transformation process; by divesting the Food and Beverage Containers business, the Company achieved a debt-free financial situation, prepared to grow and regain its leading position.

The financial flexibility attained with this operation eased our way to undertake new organic growth projects, like the new Calcium Chloride plant; in the automotive market, the beginning of the construction of an automated line for curving processes to supply the original equipment sector; as well as the expansion plan for the spare parts market, with a new plant completely dedicated to this market.

Additionally, we signed definitive agreements for the acquisition of two businesses that will further strengthen Vitro by placing it in a leading position in key markets. The integration of both businesses is an operational achievement that will allow us to maintain the consolidation and growth on the foundations that will lead us towards a sound future.

On October 1, 2016, the Company successfully completed the acquisition of the PPG Industries, Inc. (PPG) Flat Glass and Glass Coating business, a US company with over 130 years of experience in the manufacture and processing of architectural glass, as well as global leadership in new products' research and development.

The operation, which amounted to US\$ 755 million minus the existing debt at the sale's completion and executing the applicable adjustments for this type of transaction, included four production plants that total five float furnaces and four MSVD (Magnetron Sputtering Vapor Deposition) layers deposition lines in the United States, a Flat Glass Research Center and four glass processing centers in Canada.

The acquisition of PPG's Flat Glass and Glass Coating business will position the Company as one of the world's technology leaders in the flat glass industry and will enable it to participate with leadership in the United States and Canadian market, particularly in the segment of high-tech solar control layers' products.

This business' integration enriches the wide range of added value products in architectural glass. In addition, the research and technological development center will provide competitive advantages in this sector.

Simultaneously, Vitro reported the expansion of its coating capacity with the construction of a new large-scale coater equipment, which will be built in one of the recently integrated business locations. Coating applications equipment are used to produce high-efficiency and energy-efficient with low-emissions (Low-E) glass.

In December 2016, Vitro announced the signing of a definitive agreement to acquire the business of automotive glass for original equipment from Pittsburgh Glass Works (PGW), owned by LKQ Corporation (NASDAQ: LKQ) for the amount of US\$ 310 million.

Assets intended for the distribution of automotive glass for the spare parts market were not part of the transaction, they belong to LKQ Corporation.

After obtaining the corresponding authorizations, on March 1, 2017, the transaction was finalized and was informed in a timely manner to the financial markets.

With this acquisition, Vitro acquired seven automotive glass manufacturing plants and two satellite plants, besides a plant with two float glass furnaces in the United States, an automotive glass plant in Poland, and participation in two joint ventures located in Mexico and China.

In order to counteract the effect of the variables outside our control, at Vitro we focus on carrying out the daily operations, as well as to follow up on the organic growth projects announced in the 2015 report.

In November, 2016, the expansion of the Calcium Chloride plant at Industria del Alkali was completed; additionally, since the first week of December, the float glass furnace's capacity expansion in Mexicali, Baja California, was concluded.

Likewise, the new mirror glass line started operations in May 2016, and the production capacity of molds in Machinery Manufacturing doubled, in the molds, machinery and equipment business.

Despite the external challenges we faced, such as the weak economic growth in Mexico and even the deceleration in other regions where the Company has presence; Vitro's consolidated sales amounted to US\$ 1.05 billion year-over-year, representing an increase of 19.2 percent compared to 2015; while in Mexican pesos the increase was 40.4 percent, totaling MXN\$ 19.84 billion.

Among the factors contributing to these results are: higher sales in the construction segment and a better product mix, increased sales in the domestic spare parts market, strong growth in packaging for cosmetics, as well as in the market of pharmaceutical packaging and in the mold, machinery and equipment business. Sales in the last quarter from the business acquired in the United States and Canada also helped to achieve this growth.



Today, the Company is heading towards  
a profitable and sustained growth,  
with foundations that offer a sound future.

Resource optimization, cost and expense reduction, productivity improvements across all companies and the business strategies we implemented offset the impact of the challenges in some markets.

2016's achievements are a clear example of our commitment with the Vitro Mission to offer the best solutions in products and services in the most efficient way for the industries in which it participates, aiming to create value for its clients, shareholders, employees, suppliers and communities where it operates.

OPERATIONAL STRENGTH FOR  
A SOUND FUTURE

Vitro's operational strength has been consolidated due to the unrestricted adherence to the goal of becoming the best option for our stakeholders; the commitment from the employees and management team is one: persist firmly towards a future with sound and profitable growth.

The results obtained during the last seven years have been tangible evidence for the financial community, clients and suppliers, to have the confidence that our business plan pursues sustainability in all fields.

The behavior of the construction market in 2016 benefited Flat Glass in a positive way. The repair of the VF1 furnace in 2015 increased

the efficiency in float glass production, which allowed us to increase our capacity and timely serve our clients during 2016.

The tendency to use architectural glass as a design material and the growing interest in using low emission products, favors both price and volume. Every day the architectural segment becomes more demanding, sophisticated, and looks for specialized products with greater size, features we can fulfill due to the state-of-the-art technology we own and in which we continue investing.

With the upgrade and expansion of the furnace at the Mexicali, Baja California plant, the furnace capacity was increased by approximately 35 percent, which will allow us to increase productivity and continue offering quality products.

It should be mentioned that the furnace's repair at Mexicali, Baja California, was carried out within a plan that was fulfilled without affecting clients' supply.

The automotive glass business had a very good year from the operational point of view, the efficiency and productivity goals were met due to timely capacity adjustments based on the demand projected through 2016.

Regarding the chemical business —although the expansion of the Calcium Chloride plant was completed— the market's behavior was not as expected, since it was affected mainly by the moderate winter season in the United States, reducing the demand of products

for highways and roads thawing, and the fall in the oil price, which has lowered investments in new wells, also limiting the demand for products destined for oil and gas wells' drilling.

For Containers, 2016 represented a good year, in which the indicators of efficiency in finishes were improved, pack to melt and rupture; in addition, the products' quality once again exceeded the expectations of clients, obtaining several recognitions.

For Machine Manufacturing (FAMA), the molds, machinery and equipment business, 2016 was a challenging year, being the first year it was operationally disconnected from the Food and Beverage Container business. The Company redoubled efforts to face the challenges involved in entering an autonomous process, investing to modernize and expand capacity in its mold business, which will be completed during the first half of 2017, achieving good results.

STRATEGIES THAT WORK

Despite the unfavorable economic scenario throughout the reported period, the strategies carried out by the Company allowed to reduce the impact on results.

The Flat Glass business unit —which includes the businesses of Architectural Glass, Vitro Automotive, serving the segment of glass for original equipment and spare parts market, and Industria del Alkali that supplies the chemicals and raw materials sector— exhibited an excellent financial performance.

EBITDA  
US \$259  
million,  
a 34.7% increase  
vs. 2015

Consolidated total sales of Flat Glass amounted to US\$ 802 million, 19.3 percent higher than the US\$ 672 million recorded in 2015. Flat Glass EBITDA closed at US\$ 205 million, a 41 percent increase against US\$ 145 million in 2015, which had a significant boost by the integration of PPG's Flat Glass and Glass Coating business.

The dynamism of the construction and remodeling sector in Mexico and the United States, as well as a better product mix, excellent exporting performance, new automotive platforms and significant growth in volume in the domestic automotive spare parts market supported these results, coupled with the sales of the Flat Glass and Glass Coating business acquired from PPG, currently Architectural Vitro.

During the first half of the year, lower electricity prices and natural gas' stable price, as well as the ongoing efforts to reduce costs and expenses in Flat Glass, gradually offset the performance of the chemical business, which was impacted by a moderate winter season in the United States and a challenging environment due to international oil prices.

Furthermore, Containers' total consolidated sales, which includes the Cosmetics, Fragrances and Pharmaceuticals (CFT) and Machine Manufacturing businesses, totaled US\$ 240 million, representing an increase of 16.7 percent compared to US\$ 205 million in 2015. Container's EBITDA closed at US\$ 59 million against US\$ 52 million in 2015, an increase of 13 percent.

Growth in the demand for cosmetic and fragrances packaging in the United States market, higher sales in the domestic pharmaceutical industry, increased sales of the molds, machinery and equipment

business, cost and expense reduction programs, and improvements in efficiencies were the key factors for achieving these results.

Among the strategies implemented by FAMA in 2016 are the diversification of its client portfolio, both geographically and in services, opening the options of: Molds and Materials, Machinery and Equipment, Engineering Services, Special Equipment and Automation.

SUSTAINABLE COMMITMENT

Vitro’s permanence and transcendence for over a century denote the genuine commitment that it has as a responsible company, committed to generate not only economic and financial well-being, but seeking the comprehensive benefit of each and every one of its stakeholders.

For nine consecutive years, the Company has been awarded the Socially Responsible Company (ESR) distinction by the Mexican Center for Philanthropy (Cemefi), organism responsible for validating that distinguished companies comply with five indicators: social responsibility management, quality of life in the company, corporate ethics, community engagement and preservation of the environment.

Accordingly, Vitro was awarded the Super Company 2016 distinction for the sixth time; recognition that Expansión magazine grants to those organizations that have the necessary elements to positively influence the culture and organizational environment. The evaluation, performed by Top Companies, applies to randomly selected employees to grade the company.

Regarding health, in addition to mandatory programs, Vitro regularly carries out health campaigns for disease prevention and detection. One example is the breast cancer prevention campaign that takes place in October, during which informative talks and

medical examinations are held in our work centers. Another relevant example of these initiatives is the Wellness program that promotes well-being to ensure employees’ physical, emotional and cognitive development.

Another of the Company’s occupations are the quality and continuous improvement in its processes and products, supported by the acknowledgments and certifications that clients and governmental and private institutions grant every year to its companies.

In this report’s Sustainable Development section, you will find more details regarding the reforestation, environment’s protection, educational, social, sports and cultural programs that we offer our employees, their families and the community.

GROWTH ON SOUND FOUNDATIONS

The actions and decisions we have made over the last few years have placed us in an extraordinary financial and operating condition. Currently, Vitro is a company committed to profitable and sustained growth, with foundations that offer a sound future by taking advantage of the opportunities and synergies that are presented.

Expectations for the Mexican economy and other Latin American countries where we participate remain moderate, financial specialists predict that 2017 will be even more complex than 2016.

At Vitro we are aware of this scenario; however, we are a company that is constantly looking for alternate export markets and new action niches to compensate the lack of growth in regions that demonstrate weak economies or are in recession.

Our perspective for 2017 and forward will be based on the strong position that we have been developing. The acquisitions of the

We will ensure that the two acquired businesses produce the expected results according to our strategic plan.

architectural glass and automotive glass businesses will allow us to capitalize on growth opportunities in the United States and Canada, markets in which we had no significant presence over the last years.

Although our leverage level increased, it is important that, once both transactions are completed, the Net Debt / EBITDA ratio, will be 1.3 times, which is a very low leverage for our industry.

Furthermore, through the two new companies, Vitro’s production revenues in the United States are estimated to be 60 percent and the addition of all dollarized revenues could represent about 80 percent of Vitro’s sales, which will allow to pay the debt in an orderly way, without affecting the Company’s financial situation.

As part of its planning process, the Company’s Management Committee is in charge of identifying new projects for cost reduction and resources optimization, thus, this represents another of our strengths to remain constant towards growth.

Concerning organic growth currently in process, we will take advantage of the conjunctures that these will provide in order to strengthen our competitive advantages and offer greater value to shareholders. We will ensure that the two recently acquired businesses produce the expected results according to the strategic plan established.

Dear shareholders, standing where we are is not only the result of the business plan we have established, nor the effort and commitment of each of the 11,407 employees that comprise Vitro in over 13 countries in the world; this position ensues from the trust and support you have bestowed upon us throughout this process, we reinforce our commitment to achieve the goal of generating greater value for you.

We are grateful with all our clients, suppliers, employees, every stakeholder and especially you, esteemed shareholders, for believing and supporting Vitro to achieve the established goals, you have our commitment to continue steadfast towards a sound future.

Kind regards,



Adrián Sada Cueva

Chief Executive Officer

March 14, 2017



# Board of Directors

## ADRIÁN SADA GONZÁLEZ (1944)

**Member since 1984**

Chairman of the Board of Directors

Chairman of the Chairmanship Committee

Board Member of Alfa, Cydsa, Consejo Mexicano de Negocios (CMDN) and Grupo de Industriales de Nuevo León.

## ÁLVARO FERNÁNDEZ GARZA (1968)

**Member since 2011**

Chief Executive Officer of Alfa and Member of the Boards of Directors of Alfa, Cydsa and Grupo Aeroportuario del Pacífico. He is also a Member of the Executive Committee of Universidad de Monterrey, Museo de Arte Contemporáneo de Monterrey (MARCO), the Latin- American Council of Georgetown University, Axtel, Nemark and Alpek.

## TOMÁS GONZÁLEZ SADA (1943)

**Member since 1980**

Chairman of the Board and Chief Executive Officer of Cydsa; Vice President of the Instituto Mexicano para la Competitividad (IMCO); Honorary Consul of Japan in Monterrey, Mexico. Member of the Regional Board of Banco de México, Consejo Mexicano de Negocios, Grupo de Empresarios of Nuevo Leon and Consejo de Cáritas de Monterrey, A.C. Treasurer of the Martínez Sada Foundation.

## MARIO LABORÍN GÓMEZ (1952)

**Member since 2010**

Chairman of ABC Holding and ABC Capital, Chief Executive Officer of Bancomext (2006-2008), Chief Executive Officer of Nacional Financiera (2000-2008), Chief Executive Officer of Bancomer and Chairman of the Brokerage Firm (1991- 2000) and Founding Chairman of MexDer (1998-2000), as well as Co-Founder and Chief Executive Officer of Grupo Vector (1986-1990). He has served as Board Member of TV Azteca, Cervecería Cuauhtémoc, Transportación Marítima Mexicana, Bancomer, Bolsa Mexicana de Valores, MexDer, Indeval, Xignux, Megacable, Cydsa, Astrum México, Banco de México Nuevo León and Gruma.

## RICARDO GUAJARDO TOUCHÉ (1948)

**Member since 2013**

Chairman of the Board of Solfi and Board Member of BBVA Bancomer, Valores de Monterrey, Bimbo, Liverpool, ALFA, Grupo Aeroportuario del Sureste, Coppel and Coca-Cola FEMSA. He was a Member of the International Advisory Committee of the Federal Reserve Bank of New York. He has served in various executive positions in companies such as BBVA Bancomer, Valores de Monterrey, FEMSA and Grupo AXA.

## RICARDO MARTÍN BRINGAS (1960)

**Member since 2007**

Chairman of the Corporate Practices Committee

Chief Executive Officer and Vice President of the Board of Directors of Soriana. Board Member of Teléfono-s de México, Grupo Financiero Banamex, MADISA, Consejo Mexicano de Negocios (CMN), Grupo de Empresarios of Nuevo Leon and Asociación Nacional de Tiendas de Autoservicio y Departamentales (ANTAD). Chairman of the Patronage of the Hospital Regional Materno Infantil.

## DAVID MARTÍNEZ GUZMÁN (1957)

**Member since 2013**

Chairman and Special Counselor of Fintech Advisory, Inc. and Board Member of ALFA, Sabadell Banc and CEMEX.

## GUILLERMO ORTIZ MARTÍNEZ (1948)

**Member since 2010**

Chairman of BTG Pactual Casa de Bolsa México, Fundación Per Jacobsson and Founder of Guillermo Ortiz y Asociados. He was Chairman of the Advisory Board (2015) and of the Board of Directors of Grupo Financiero Banorte (2011–2014). Member of Grupo de los Treinta and of the Boards of Directors of Bombardier, Grupo Aeroportuario del Sureste, Mexichem, Grupo Comercial Chedraui and Weatherford International LTD, and Member of the International Board of Zurich Insurance Group. He has acted as Chairman of the Board of Directors of the Bank for International Settlements (2009), Governor of Banco de México (1998-2009) and Secretary of Finance and Public Credit in the Mexican Federal Government (1994-1997). At the International Monetary Fund, he acted as Chairman of the External Panel for the Review of the Fund's Risk Management Framework (2010-2011) and also served as Managing Director (1984-1988).

## JAIME RICO GARZA (1957)

**Member since 2008**

Chief Executive Officer and Chairman of the Board of Vitro Europa and Vitro Global, as well as Board Member of Vitro Cristalglass and Chief Executive Officer of Vitro Cristalglass (2007-2012).

## ADRIÁN SADA CUEVA (1975)

**Member since 2010**

Chief Executive Officer

Board Member of Empresas Comegua, Club Industrial de Monterrey, Grupo Financiero Banorte and Banco Mercantil del Norte, Universidad de Monterrey, Nemark and Minera Autlán. Board Member of Cámara de la Industria de Transformación (CAINTRA) Nuevo León.

## JAIME SERRA PUCHE (1951)

**Member since 1998**

Chairman of SAI Consultores, Founder of Aklara (Electronic Auctions), Centro de Arbitraje de México (CAM) and the Mexico NAFTA Fund (Private Equity Fund). Board Member of Fondo México, Tenaris, Grupo Modelo and Alpek. Member of the Patronage of Yale University (1994-2001). He held several positions in the Mexican Federal Government (1986-1994), as Undersecretary of Revenue, Secretary of Trade, and Secretary of Finance. Currently, he co-chairs the President's Council on International Activities of Yale University and he is a Trustee for the Trilateral Commission.

## JOAQUÍN VARGAS GUAJARDO (1954)

**Member since 2000**

Chairman of the Audit Committee

Chairman of the Board of Grupo MVS and Grupo CMR. Board Member of Grupo Financiero Santander, Grupo Costamex, El Universal, Grupo Aeroportuario del Pacífico and Médica Sur. He has served as Chairman of Cámara Nacional de la Industria de Radio y Televisión (2000-2001), Chairman of Asociación Mexicana de Restaurantes (1985- 1987) and Chairman of Asociación de Directores de Cadenas de Restaurantes (1989).

## \*\*\*ALEJANDRO F. SÁNCHEZ MÚJICA (1954)

**Secretary of the Board since 2007**

He has been a Board Member of several Mexican and foreign companies, such as Empresas Comegua and The University of Texas Lady Bird Johnson Wildflower Center. He is currently Senior Counsel of Thompson & Knight and Board Member of the Junta de Beneficencia Privada de Nuevo León. He was Legal Counsel of Vitro (2005-2013), Partner of Thompson & Knight (2003-2005), Legal Counsel of Grupo Pulsar/Savia (1982-2003), Legal Counsel of the Petrochemical Division of Grupo Kuo (1975-1981) and Legal Manager of Indeval (1973-1975).

# Committees of the Board of Directors

\*Independent Member

\*\* Non-member Financial Expert

\*\*\* Non-member Secretary

## AUDIT COMMITTEE

Chairman: Joaquín Vargas Guajardo \*

Guillermo Ortiz Martínez \*

Jaime Serra Puche \*

Jonathan Davis Arzac\*\*

Secretary: Claudio L. Del Valle Cabello \*\*\*

## CORPORATE PRACTICES COMMITTEE

Chairman: Ricardo Martín Bringas \*

Joaquín Vargas Guajardo\*

Guillermo Ortiz Martínez \*

Mario Martín Laborín Gómez\*

Secretary: Alejandro F. Sánchez Mújica\*\*\*

## CHAIRMANSHIP COMMITTEE

Chairman: Adrián Sada González

Adrián Sada Cueva

Secretary: Claudio L. Del Valle Cabello \*\*\*

# Glass Containers



Vitro's containers are supported by over 100 years of experience. With state-of-the-art technology, strict quality controls, safety and hygiene, the Glass Containers business produces highly sophisticated and aesthetic products for the cosmetic, fragrances and toiletries industry; furthermore, it serves the pharmaceutical segment and manufactures machinery, equipment and molds for the industry.



# 2016 Summary

## GLASS CONTAINERS, ACHIEVED GOALS

2016 was an outstanding year for Containers, compared with 2015. As a result of the implemented strategies and the effort of all employees, the commercial, operating and management goals were fulfilled, exceeding the challenges presented throughout the year.

## CONTAINERS FOR COSMETICS, FRAGRANCES AND PHARMACEUTICALS, TURNING CHALLENGES INTO OPPORTUNITIES

The cosmetics and perfumes markets continue to grow at a slow pace; the main producers in the industry face important challenges to grow in sales and profitability; therefore, companies in this sector are consolidating, leading customers to implement measures to optimize inventories, reduce orders’ size, make adjustments to products to cheapen them and even look for other supply sources with better conditions.

In spite of the aforementioned, we managed to surpass in a favorable way the adverse conditions; for example, variations in the economies of Latin American countries, with strong devaluations of their currencies against the US dollar.

To counteract the situation, we made sure to remain close to our customers; a commercial area was opened in Colombia to serve the Andean region, in particular the countries of Peru, Colombia and Ecuador, and the commercial operation in Brazil was consolidated, strengthening our sales in 2016.

In addition, the perfume segment performed well in the European and North American markets, taking important steps in the "Prestige" segment (characterized by packaging that stands out for its design, sophistication and added value). Similarly, in Mexico sales of both the pharmaceutical and perfume sectors increased compared to the previous year.

In 2016, the separation of operations with the Food and Beverage Containers division, divested in 2015, was concluded. Progress was made in modifying the facilities of the Cosmos plant in Toluca, State of Mexico; the expansion of the finishes area, as well as the storage capacity was carried out and the social and sports area was enabled for employees.

Jointly, we invested in automated inspection equipment and in December began the repair of Furnace 3, which will be at full capacity in 2017.



## MACHINERY MANUFACTURING, TRANSFORMATION THAT GENERATES

The molds, machinery and equipment, Machinery Manufacturing (FAMA) business had a challenging year as it was its first year as an independent profit center, however, the actions undertaken yielded good results.

During the previous period, FAMA was prospecting clients in Mexico, the United States, South America and Europe, with the purpose of generating new businesses; this initiative resulted in several sales in the automation segment for the automotive area, closing the transaction of six robot cells for an amount of US\$ 650 thousand.

Additionally, in the machinery, spare parts and engineering services sector, the company closed sales with two new clients in Mexico and was able to enter as a prospect with several more.

## CONTAINERS, SUSTAINED GROWTH

Despite market volatility and the macroeconomic scenario prevailing in 2016, at the end of 2016, Containers improved its sales by 16.8 percent, with total consolidated sales of US\$ 240 million against US\$ 205 million in 2015.

These figures were due to the strategies implemented, the excellent performance in the domestic pharmaceutical segment, the increase in the perfume sector in export sales to the United States and South America, a better product mix, higher sales in the machinery and equipment business and to the strict programs of costs and expenses reduction. In 2016, Containers reported EBITDA of US\$ 59 million compared to US\$ 52 million in 2015, an increase of 13 percent.

Facing the challenges, we have become an even more flexible and competitive company, with special emphasis on continuous improvement, creativity and innovation of both products and processes, as well as teamwork.

# Strategies towards a Sound Future

In order to face all challenges, internally we are reforming systems and procedures, adapting them to the demands and needs in each sector. We have become an even more flexible and competitive company, with special emphasis on continuous improvement, creativity and innovation of both products and processes, as well as teamwork.

The businesses that comprise the Containers business unit have designed and implemented several initiatives that will allow them to stay on the path of profitability.

## CONTAINERS FOR COSMETICS, FRAGRANCES AND PHARMACEUTICALS STRATEGIES THAT DELIVER RESULTS

During 2016, the Containers business for Cosmetics, Fragrances and Pharmaceuticals implemented strategies that allowed it to reach the established goals.

- **Volume generation:** It was possible to grow in sales in all markets compared to 2015. The increase in the domestic pharmaceutical sector and the export sales to the United States and South America in the perfume sector contributed to the results.
- **Competitiveness:** Productivity indexes were improved in all areas and important projects were carried out to reduce costs and optimize resources. Among some of the efficiency indicators are: the reduction of the customer complaints index, the efficiency in finishes, the pack to melt and the actual efficiency grew 4 percent compared to 2015.
- **Innovation:** Not only were new finishes created; additionally, new moldings, products and processes were generated that offer differentiation for clients. In 2016, moldings and finishes with innovative shapes and decorations were developed for all markets, and a new business relationship started with 10 new customers. The sales share of new products in the business' total sales was above 30 percent.
- **Geographic growth:** In order to be closer to customers and provide better services and attention, commercial operations were established in Brazil and Colombia.





FAMA, DIVERSIFICATION TO GROW

Likewise, FAMA defined six strategies in which it worked during 2016 and will continue to implement in the coming years, aiming to consolidate its profitability goals and developing a more commercial vision.

- Commercial strategy focused on current and potential markets.
- Transform FAMA from a cost center within the Container business to an independent profit center.
- Growth and diversification, comprising five areas: Molds and Materials, Machinery and Equipment, Engineering Services, Special Equipment and Automation.
- Research and development strategies to seek third-party technological independence of all products and services.
- Operational strategy to make the operation more efficient, seeking cost reduction, improving quality and service to customers.
- Supplier development to improve the entire supply chain.

Certified Quality

The Containers business’ commitment to offer the highest quality in its products and services is based on the acknowledgments and certifications received every year from its clients and specialized agencies in different areas. These distinctions are definite evidence that in Vitro, daily work is carried out under the highest quality standards and is aimed towards a sound future, committed with its customers and the industry.

In 2016, we were awarded the Distinction of Excellence as Best Supplier by the Peruvian company Belcorp, which has been a customer for over a decade.

Likewise, Avon México, which belongs to one of the most prestigious international companies of beauty and women’s empowerment, awarded Containers a level of excellence.

We were awarded the Excellence Level rating during the audit of Gelcaps, a pharmaceutical company with over 40 years of experience.

Likewise, we were endorsed as Certified Coty Suppliers, a company that distinguishes itself in the manufacture of beauty products, with over 100 years of history, which once again certified our processes.

Also, the companies Revlon and Evenflo recognized us with their certificate of Quality during 2016.

However, not only processes and facilities are certified by customers; every year several international associations of containers and packaging reward the products manufactured by Vitro.

In 2016, the Mexican Containers and Packaging Association (AMEE) –which for more than 30 years has recognized design, innovation and development for the most outstanding containers and packaging in Mexico– distinguished 11 products manufactured for different customers: Kriska Liberdade 100 ml of Natura, Mulher Poesía 100 ml of Avon, Mysterious Orient 70 ml, Armand Dupree Glam 60 ml, Hola BB by Espinosa Paz 70 ml of House of Fuller, Clever 30 ml, Wish 60 ml of Mary Kay, Pedro del Hierro Hombre of Pedro del Hierro, Michael Kors 187 ml of Estée Lauder and Katy Perry - Mad Potion 15 and 30 ml of Coty.

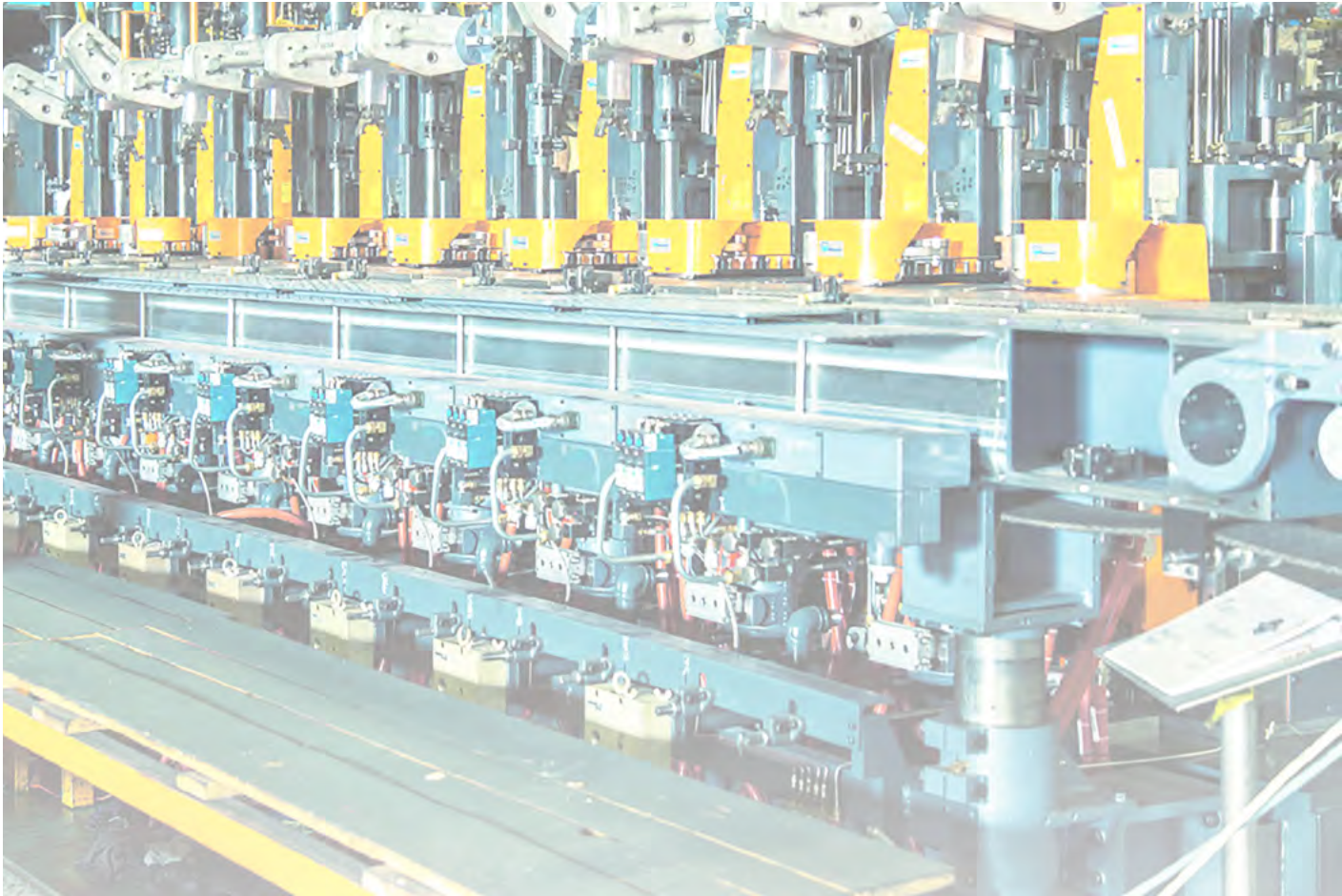
In Brazil, ABRE: (BRAZILIAN PACKAGING ASSOCIATION) THE BRAND OF EXCELLENCE awarded the container Olinda de L’Occitane, the recognition as Family of Products Packaging.



The business of molds, machinery and equipment, had a challenging year, the actions undertaken in 2016 ensued good results.

For over 20 years, the magazine Actualidad Cosmética by Cusman publisher of Brazil distinguishes the most outstanding packaging, such as beauty and perfume products available in the market. This year, the merit was for two Vitro products: Homme 033 Vivre and Leyenda Christian Meier, both of Belcorp.

The Glass Packaging Institute awards the Clear Choice Award to companies who find unique ways to use glass containers to express their brand story, stand out on counters, and have innovative designs. In 2016, in the category of cosmetics, fragrances and others, the prize was awarded to Estée Lauder Advanced Night Repair by Estée Lauder.



## Business Outlook

2017 is envisaged as a year full of challenges and opportunities for the cosmetics, perfumes and pharmaceuticals market, global and local scenarios will present a lot of volatility and uncertainty.

However, more than a century of dealing with adverse situations have not diminished Vitro, but have strengthened it; in Containers we have several upcoming projects with our clients to grow together in a win-win relationship, and we will remain on the path of creativity, innovation, competitiveness and flexibility in processes and products to become even more productive and to face all challenges that arise.

### CONTAINERS FOR COSMETICS, FRAGRANCES AND PHARMACEUTICALS

We will continue to grow in the markets we serve, we will seek consolidation in Brazil and increase our participation in the United States and Europe. We are a solid team with extensive experience, in 2017 we will redouble our efforts to continue developing high perfume products and seeking to enter other niches where there is potential for participation, such as fresheners and pharmaceuticals.





In Containers, we will remain on the path of creativity, innovation, competitiveness and flexibility in processes and products to become even more productive and to face all challenges that arise.

At the Toluca plant, we will maintain our investment plans to keep it as one of the most modern and equipped worldwide in the manufacture of containers for perfumes and cosmetics, which responds to customers' needs. We will continue with the competitiveness and productivity approach and above all, striving in our employees' training and development.

The project to install a plant in Brazil is proceeding in a positive way, the land was granted to Vitro last September, as well as the sand mine, and we are in the process of environmental licensing procedures, and several permits required by local authorities. We will continue with firm and well-structured steps, attentive for the country's conditions to improve and its economy to reactivate, and thus, reinforce the commitment with our clients and the industry.

FAMA

Based on its commercial and operational strategy, FAMA expects to establish new businesses glimpsed as excellent opportunities. The creation of a commercial area, which includes the development of databases, as well as other advertising tools, will serve to make itself known with potential customers and expand its services' information to the current ones.

Even with a complex outlook, in Containers we have the capacity, the experience of over a century in the glass containers industry, with state-of-the-art technology and especially with the commitment of our employees to proceed towards a sound future. We are on the right track, which will allow us to grow and create value.

# Flat Glass

Flat Glass is a leading global player in the manufacture and processing of float glass to serve the construction and automotive industries in the original equipment and spare parts segments. In addition to developing, processing, marketing, distributing and installing glass, it remains at the forefront in the development of added value products through its technological research center.



In an industry that is increasingly demanding in terms of aesthetics, functionality and safety, Vitro has the capacity and quality to comply with these requirements and exceed the expectations of its customers.

## 2016 Summary

### FLAT GLASS, STEADFAST IN ITS COURSE

Overall, 2016 was an outstanding year for Flat Glass; the architectural glass market showed exceptional dynamism, both in construction and remodeling. Similarly, the automotive industry requiring float glass for automotive glass experienced an excellent performance and the spare parts segment in Mexico grew, which offset the reduction in demand for original equipment and lower sales of the chemicals and raw materials business.

### ARCHITECTURAL VITRO CONSOLIDATED LEADERSHIP

In 2016, the Company acquired PPG's Flat Glass business, further strengthening the position of the Architectural Vitro (formerly Glass and Crystal) business. This integration improved geographical presence in both directions and expanded the portfolio of architectural glass products.

In addition to the specialized product line that Flat Glass manages, with the new acquisition, the Company now also owns leading brands in added value products, such as Starphire Glass and Solarban Glass, among many others.

During 2016, repairs were carried out in two of our float furnaces, in record time and without affecting customers' supply. One of them was at Fresno, California, which is part of the acquired assets, and the other one was at Mexicali, Baja California, in which, besides the repair, the furnace capacity was enlarged resulting in an increase between 30 and 35 percent.

In 2016, the new line of mirrors in Monterrey, Nuevo Leon began operations, a fact that will provide the Company with the opportunity to expand its product portfolio and satisfy its customers' needs.

The coating operation performed at 90 percent of its capacity, which caused minor problems for local supply in the United States; however, the situation was resolved during the last quarter of 2016.

Since the last quarter, the Company began to consolidate in its finances the operation of the Flat Glass and Glass Coatings business acquired from PPG in October 2016, which reinforced the business’ financial performance.

**AUTOMOTIVE VITRO  
OPERATIONAL EXCELLENCE**

Automotive Vitro recorded its best performance in the domestic spare parts market, although in Original Equipment sales continued similar to 2015 and did not reach the targets established for 2016; however, operational excellence contributed to the business’ final results.

Among the main factors that influenced the reduction in sales of original equipment, there is the tendency that the market has shown towards pickups, SUVs and crossover vehicles (CUVs). Automotive Vitro is more focused on automobiles. In addition, the almost twelve months’ delay of two new models launches affected the sales plan, since they could not be accounted.

However, there is a high demand forecasted for 2017, so the need to begin operations in the organic growth project that represents the automated curved line for tempered lateral crystals continues, contemplating to start in March and be in full operation for April 2017.

In order to cope with the decline in demand for automotive glass, we made adjustments to the manufacturing capacity and thus avoided overproduction, without detriment to the fulfillment of efficiency and productivity goals, while simultaneously placing special emphasis on resources management and expenses control to minimize any impact due to volatility in the exchange rate of the Mexican peso against the US dollar.

Another challenge we have faced in recent years is the strong competition of Chinese products for the spare parts market that arrive to the United States and Canada at very low prices, so we promote greater participation through quality and timely supply of our products, ensuring we maintain profitability according to the established goals.

Conversely, the automobile market in Mexico grew significantly in 2016, although by consolidating our finances in dollars, the depreciation of the Mexican peso negatively impacted the sales figures.

However, the dynamic of Automotive Vitro was positive in terms of attaining new businesses for original equipment; during the previous period we obtained contracts to begin in 2019 and 2020, while in the spare parts market, new export customers were explored, particularly in the United States.

The weak economic conditions in Colombia continue to be unfavorable for Flat Glass, the depreciation of the Colombian peso against the US dollar has had a strong impact on industrial production and consequently, our operations and commercial activity have experienced low demand for products and great pressure on prices, which affects our profitability in this country.

Since March 2016, a restructuring began in our Colombian company that will allow us to align both the productive capacity and the personnel structure to this new reality.

In accordance with the aforementioned, a new mission was established, in which we are focusing as main businesses towards the spare parts market and the attention to bus constructors; seeking to reduce our participation in original equipment as the platforms in which we participate are finished. This decision is the result of low profitability and the constant price pressures that these companies exert.



**INDUSTRIA DEL ÁLCALI,  
MEETING THE CHALLENGES**

Industria del Álcali’s –the chemical products business– results did not meet the expectations, as the Calcium Chloride sector was weakened all year, impacted by the moderate winter season in the United States, as well as volatility in the international oil price.

Even though the expansion of the Calcium Chloride plant was concluded, given the market situation, the Company was forced to delay the start-up of one of its sectors.

The other businesses: Sodium Carbonate, Sodium Bicarbonate and Sodium Chloride had a high demand, representing a challenge and making it possible for the company to handle low inventories; however, we responded in a timely manner to customers, our differentiating factor against the competition.

The instability of the oil price had a drastic impact on the results, since we supply Calcium Chloride to the oil industry and in Mexico, this industry was practically at zero, and in the United States, it was considerably reduced.

**FLAT GLASS: RESULTS THAT CREATE VALUE**

As a result of the boom experienced in the construction segment, of the automotive spare parts market growing sector in Mexico, and particularly the integration of the flat glass and coating business in the United States and Canada, consolidated flat glass sales amounted to US\$ 802 million, which surpassed by 19.3 percent the US\$ 672 million sold in 2015.

The operational excellence of all companies in Flat Glass, a fixed prices mix in architectural glass products, increased sales in the domestic spare parts market, ongoing initiatives to optimize resources and control costs and expenses, and the operation of the flat glass and coating business in the United States and Canada, allowed EBITDA to reach US\$ 205 million compared to US\$ 145 million in 2015, representing a 41 percent increase.



To meet the challenges presented by some markets in the chemical industry, Industria del Álcali, the chemical products business, focused its strategies on maintaining market share and profitability.

**Strategies towards a Sound Future**

Considering the opportunities offered by the active movement that several markets in which Flat Glass has participated in recent months, we have a strategic business plan that allows us to take advantage of the conjunctures to keep us on the path of creating value and aim steadfastly towards a sound future.

**ARCHITECTURAL VITRO: PRODUCTIVITY  
AND SPECIALIZATION**

In a market as competitive and dynamic as is currently the architectural one, a better product mix increased sales of added value products, which coupled with the new lean manufacturing processes, helped to achieve higher profit margins.

The repair and expansion of float furnaces in Fresno, California and Mexicali, Baja California, as well as the start-up of the new mirrors line, are additional initiatives that have contributed to the results and will strengthen our operations in productivity and volume.

**AUTOMOTIVE VITRO: CUSTOMER ORIENTED,  
RELIABLE STRATEGY**

At Automotive Vitro, in addition to adjusting production according to demand, we were even closer to our customers by participating in new business tenders for the original equipment segment.

Furthermore, we maintained our continuous improvement system in a manner that through optimizations in operation and in energy consumption, we seek to be more efficient and productive to achieve low costs and profitability.

Committed to implementing the Company’s Values, in Vitro we consider the customer as the focal point of our business, as evidenced by the strategies we implemented to attract new customers, which resulted in attaining contracts with BMW and Toyota during the previous period, projects that will begin in 2019 and 2020, respectively.



Towards the future, the demand for architectural glass with a greater focus on more sophisticated crystals, with higher added value and larger dimensions will continue to increase; at Vitro we have the capacity to satisfy the markets' needs.

### INDUSTRIA DEL ÁLCALI: FOCUSING ON MARKET'S NEEDS

Strategies implemented by the chemical products business focused on maintaining market share and profitability. The company carried out timely agreements with customers, in order to preserve and increase volume and adapt to their needs and those of the final consumer.

In order to offset the decline in sales, the company was able to reduce both fixed and variable operating costs to maintain its results at record levels for the Company.

## Certified Quality

In an industry that is increasingly demanding in terms of aesthetics, functionality and safety, Vitro has the capacity and quality to meet these requirements and exceed its customers' expectations. The distinctions and certifications of its products and processes constitute the difference.

### ARCHITECTURAL VITRO: RECOGNIZED QUALITY

Architectural Vitro's products enjoy great prestige worldwide. Simply the line of Solarban 90, one of our best positioned solar control brands in the United States, received several awards in 2016, among which we can highlight:

- Award for the best 100 advances in research and development of glass products (R&D 100 Award)
- Award for Product Innovation awarded by Architectural Products magazine

- 2016 Money Saver Product Award granted by Buildings magazine
- Glazing Product of the Year awarded by Architectural Record magazine

Solarban® 90 is the first high performance solar control glass, with low emissions silver coating, with a neutral aesthetic appearance, one of the most requested features by current architects.

In 2016, another successful launch was Platia®, our new ecological mirror free of copper and lead, further evidence of Vitro's commitment with environmental care.

### AUTOMOTIVE VITRO, CONTINUOUS IMPROVEMENT

Automotive Vitro recertified all its plants and design areas with the TS 16949 certification, which is the ISO standard that is in charge of regulating that the automotive industry meets all the conditions of quality and continuous improvement in its products and processes; Vitro, as supplier of the Industry adheres permanently to this standard. Furthermore, it was recognized as a Clean Industry and achieved the ISO 14000 certification.

### INDUSTRY OF THE ÁLCALI, VERIFIED QUALITY

The chemical products business retains its certifications: Business Alliance for Secure Commerce (BASC), Customs-Trade Partnership Against Terrorism (CTPAT), ISO 9001 (Quality Management Systems), ISO 14000 (Environmental Management System) and ISO 22000 (Management of Food Security). It was recertified as a Clean Industry and obtained the Management System Comprehensive Responsibility (SARI) certificate.



# Business Outlook

For 2017, forecasts for economic development are not encouraging in Mexico and some Latin American countries in which we have presence; still, in Flat Glass we have the sound foundations to face such challenges.

## ARCHITECTURAL VITRO

Our future prediction is that the demand in the architectural glass market will persist, with a greater focus on more sophisticated crystals, with greater added value and larger dimensions; in Vitro our business plan anticipates this aspect, therefore, the improvements in productivity and organic growth will provide us the guidelines to satisfy our customers' needs.

In 2017 we will carry out the necessary procedures with local and federal authorities for the construction of the new flotation furnace contemplated in García, Nuevo León. An engineering company was hired for the line's design and construction, thus, with the analysis of the balance and available capacity, we estimate the construction will begin in 2018.

The integration of the Flat Glass and Glass Coating business in 2016 strengthens our presence internationally, geographic coverage, especially in North America, will allow us to position Vitro once again as a major league player in the market.

## AUTOMOTIVE VITRO

In the automotive glass segment, we will focus specially in new technological developments that benefit customers and meet their expectations and market trends. We will continue to make innovation one of our key Values to create new products and processes that improve productivity and results.

Moreover, with the contracts won in 2015 and 2016 there will be a very significant development activity, since there will be continuous

launches from 2017 to 2019; in addition to the businesses that are earned to begin in 2020.

The acquisition of the Pittsburgh Glass Works (PGW) automotive glass for original equipment business is an opportunity to combine efforts and synergies to fully address the original equipment market, thus becoming the number one supplier in the NAFTA region; and laying the foundations to become a global supplier with the plant in Poland and the joint venture in China.

Besides, we estimate that the conclusion of the new original equipment line being built at the García site, Nuevo Leon, scheduled for the first quarter of 2017, will strengthen the business and compete with greater share in the markets that we serve.

With regard to the construction project of the new plant for the spare parts market in García, Nuevo Leon, it is progressing according to the initial plan; where the windscreen manufacturing line and the two tempering furnaces will be starting operations in April, to initiate product sales from this plant in June 2017.

## INDUSTRIA DEL ÁLCALI

In the chemical products business, the domestic and international uncertainty in the economy present an interesting challenge for the company, nonetheless, in addition to maintaining our current clients, we will seek joint ventures by participating in international Calcium Chloride tenders to achieve new businesses in the oil sector.

In Flat Glass we have what it takes to continue the course we have established, to continue moving towards a sound future. The operational and geographic strength, the research and technological development capacity for new products and the excellent customer orientation will ensure the business remains profitable, with state-of-the-art products and services.



# Sustainable Development

Determined to bet on the sustained growth of the communities where we have presence, Vitro implements initiatives that promote society's Sustainable Development. With the Vitro Sustainability Model as a guide, it acts under the framework of responsible corporate management, promoting optimal conditions to generate a better social, economic and environmental development towards a sound future.





Our recognitions and certifications encourage us to continue striving for excellence with outstanding operational performance and a constant improvement of our processes.

COMPREHENSIVE COMPETITIVENESS

Through our proposal, we provide sustainable solutions that meet the needs of customers and consumers. The axis of comprehensive competitiveness in the Vitro Sustainability Model is governed by the value of innovation, always focused on the continuous improvement and operations’ efficiency.

We are convinced that, in order to achieve a sustained and profitable future for the Company, we must maintain a close relationship with our value chain. Therefore, we continue with supplier development and evaluation programs on issues such as product liability and we comply with all the requirements of international standards requested by our customers.

In 2016, twenty supplier companies graduated from the Environmental Leadership Program for Competitiveness, a training project that has been operating for five consecutive years at Vitro. The pro-

gram is recognized by the Federal Environmental Protection Agency (PROFEPA) as one of the best environmental practices implemented in the value chain.

Furthermore, during this period several awards were received from clients, such as the Distinctive in Excellence as Best Supplier from our customer Belcorp and certification by Estée Lauder and Coty, two more of our clients. We were also recognized by Ecovadis, an international evaluator on sustainability issues, for obtaining the Advanced Supplier qualification and for qualifying in matters of labor practices among the top companies evaluated.

These programs and evaluations promote continuous improvement and we commit to a constant stakeholder engagement that drives us towards sustainable development for all.

With the acquisition of the PPG Flat Glass and Glass Coating business, Vitro increased its added value product line by integrating

a new brands portfolio focused on better performance and higher solar properties. Among the new sustainable offer is the Solarban 90 product, which received the R&D 100 award, for its development of the first glass with a silver coating that increases the possibility of manipulating color control, solar performance and reflectivity.

The business now known as Vitro Architectural Glass stands out in the values of operational excellence and innovation, representing an acquisition that will allow the Company to continue with its sustainability strategy by offering its customers innovative and beneficial options for the environment.

Moreover, decided to strive for operational excellence on all fronts, in 2016 our work centers renewed the Business Alliance for Secure Commerce (BASC) and Customs-Trade Partnership Against Terrorism (C-TPAT) certifications. In addition, some were also recertified in ISO 9001, a standard that regulates the quality management system.

For the first time, our chemical plant, Industria del Álcali, received the SARI (Comprehensive Responsibility Management System) certification granted by the Chemical Industry Association (ANIQ). Additionally, the Company was recognized as a *Súper Empresa*, an award granted by *Expansión* magazine to those companies that have the best practices in organizational culture and work environment.

Accordingly, for the ninth consecutive year, the Social Responsibility initiatives at Vitro received recognition from the Mexican Center for Philanthropy (Cemefi) with the Corporate Social Responsibility (ESR) seal.

Vitro’s list of acknowledgments and certifications encourages us to continue striving for excellence focused on an outstanding operational performance and a constant improvement of our processes. Under these values we continue steadfast towards a sound future.



Adoption of 69,455 trees of  
endemic species since the program  
began in 2007; in addition,  
reforestation of 10 urban areas was  
carried out in three municipalities  
where Vitro operates; Toluca,  
Garcia and Mexicali.

HUMANE ATTITUDE

Pioneer in social responsibility practices since its foundation, The Glass Company bets on personal, social and labor development of all its employees. Consistent with this commitment, it maintains a direct community engagement through the institutional account [social@vitro.com](mailto:social@vitro.com), which in 2016 received over 80 requests for information on various topics.

Likewise, we continued our communication work through our Sustainability Newsletter "Reflector", which during this period was updated, choosing a cleaner design that invites readers to learn about Vitro's initiatives, every month.

Determined to be equivalent to best work practices, we transformed ourselves under the new Human Resources Model with the launch of the Champion of Employees program. The scheme is constituted of four aspects, derived from good practices in the Company: **Vitro Family** –which encompasses all activities and traditions where a work-family balance is promoted– **Joining Talents** –program that promotes the recruitment of people from vulnerable groups in strategic positions where they can develop their potential– **Wellness** –a comprehensive well-being plan for employees– and **Corporate Volunteering** –through which community support activities are organized inside and outside the company–.

Some of these projects' achievements are important alliances, for example: the signing of the *Éntrale, a labor inclusion initiative*, the working sessions' inauguration with the ANSPAC organization, executives' regular medical evaluations and the approach with associations such as Cruz Rosa to collaborate in joint campaigns.

Moreover, as part of the model, we sought the institutionalization of any social responsibility initiative that is generated in any of the plants, so that the benefits from the various programs impact most communities where we are present. An example of this effort was the breast cancer prevention campaign that was carried out in three phases: first, through an awareness campaign by corporate communication, then with informative talks by the medical department



in the cities of Garcia, Monterrey, Santa Catarina, Nuevo Leon and Toluca, State of Mexico, and finally with timely screening tests offered to employees within the work centers.

Furthermore, aware that we must act on several internal and external social aspects, we also collaborate in cultural and educational projects. During 2016, the Glass Museum (MUVi) opened its permanent collection's doors to over 7,500 visitors, of which over 2,400 enjoyed a free entrance due to the Company's contribution in this area.

MUVi presents a cultural exhibition that displays the three dimensions of glass production as a human activity: History, Art and Science, and chiefly aims to promote glass' benefits among its guests, especially with students, who represented almost 60 percent of those attending the museum.

To learn more about the cultural activities of the Glass Museum, please visit its website <http://www.museodelvidrio.com>.

With the addition of the new flat glass plants and consequently, Vitro's family growth, there will be further challenges, but with effective communication and the broad participation of the Human Resources and Social Responsibility team, we will continue to promote a healthy and sustainable lifestyle for our employees, focused on improving quality of life for all societies where we have operational presence.

We remain determined to seek new and better initiatives in our relationship with our employees and with our communities, always looking to maintain a clear, sensitive and proactive engagement with our internal and external stakeholders.



At the end of 2016, the collection of recycled glass exceeded the target by 7 percent, reaching a total of 96,375 tons of recovered flat glass.

ENVIRONMENT

We transform our company through ecological, optimal and efficient processes, complying entirely with the strict quality standards requested by customers and consumers; respecting the established regulations, the environment and all our stakeholders’ needs.

In 2016, seven plants of Vitro were recognized as Clean Industry, a distinction awarded by the Federal Environmental Protection Agency (PROFEPA) to those companies that comply with the legal environmental requirements. Likewise, our work centers Industria del Álcali, Vitro Flex, Autotemplex, VAU Aguascalientes, Crinamex, Shatterproof and Vitro Colombia received the ISO 14001 certification.

One of glass’ greatest benefits, being 100 percent recyclable, is that it gives us the opportunity to contribute in a responsible manner to the community’s welfare. Thus, we report that with our recycling program’s promotion, at the end of the year we exceeded the collection target by 7 percent, reaching a total of 96,375 tons of recovered flat glass.

Besides, we continue measuring and reducing greenhouse gases (GHG) to align processes with the environmental commitment to combat global warming. As part of this responsibility, in 2016 we again submitted our Corporate Greenhouse Gas Emission Inventory Report to be verified by the Standardization and Certification Association, A.C. (ANCE).

In a market that is increasingly demanding low carbon footprint products, Vitro fulfills its mission of effectively communicating its operations’ environmental performance to

stakeholders, through public links to our GHG Reports: <http://www.vitro.com/es/sustentabilidad/reportes>.

In 2016, the Company participated in the first cycle of the Learning Network in Mexico. This is a cooperation project organized by the National Commission for the Efficient Energy Use (Conuee), in collaboration with the German Development Cooperation (GIZ), where the ultimate aim is the implementation of an Energy Management System (SGEn) in the participating companies.

As a pioneer in practices for the responsible use of resources, Vitro worked with 10 other organizations, sharing its production processes, attending the six periodic workshops and participating in internal audit cycles and technical visits for feedback from the management system.

It is noteworthy that in its result report from this first exercise, the Conuee recognized the Company as one of the main contributors during the sessions. Determined to continue the sustainable use of energy resources in the country, Vitro will remain working with five other companies to begin a second stage of the Learning Network independently in 2017.

On the route towards a sound future, in addition to promoting efficiency and the lowest environmental impact, we preserve natural spaces through conservation projects in the community.

We continue raising awareness, besides reforestation and conservation activities, with the Vitro Park El Manzano, a recreational and family space located 60 kilometers south of Monterrey city, Mexico, with an extension of 585 hectares of forest populated by pines and oaks.

In 2016, the Park welcomed over 64,000 visitors, who made use of the facilities guided by a specialized team to carry out actions in favor of the flora and fauna’s preservation.

In September, events were organized in jointly with the organization Reforestemos México, where 55 volunteers participated in the maintenance of five hectares of the property, in order to recover trees that have been lost due to plague, fire or natural death.

To learn more about Vitro Park El Manzano we invite you to browse the website: <http://www.vitroparqueel-manzano.com>.

The Wildlife Organization (OVIS) is another of our allies for the environment’s conservation. This non-profit association was born within Vitro for the purpose of managing projects that protect wild species.

At the end of 2016, OVIS has 38,303 private conservation hectares in Mexico, distributed in four Environmental Management Units (UMA) and 45,391 leased hectares distributed in the states of Sonora and Campeche.

Video: <https://youtu.be/uJ2n07J0j0g>



Therefore, they total 83,694 hectares where over 1,000 wild species are protected, of which 62 are located in risk categories, identifying them as threatened. Among these species are the Mexican gray wolf and the black bear. To learn more about OVIS, please visit <http://www.ovis.org.mx>.

What's more, in collaboration with OVIS, we made progress with the Naturally Vitro volunteering program, supplementing our traditional adoption day in the work centers with some urban reforestation events in parks, schools, protected areas and community centers, with the intention of increasing impact and raise environmental awareness in the external community.

This annual volunteering program has been carried out since 2007, and every year we decide to take a step further towards a healthy future for the environment. By strengthening ties with external change agents and inviting them to join in the same commitment as our Vitro volunteers, we achieve environmental benefits for everyone, such as cleaner air, better temperature regulation and increased rainwater harvesting.

Naturally Vitro has recorded 87 percent survival rates so far, significantly higher than other reforestation

activities. In this period, the adoption of 69,455 trees of endemic species was achieved from the program's beginning; and with the new phase, the reforestation of 10 urban areas was carried out in three municipalities where Vitro operates: Toluca, Garcia and Mexicali.

At the Glass Company we are determined to always be at the forefront of best environmental practices. With this determination we steadfastly strive towards a sustainable future, ensuring our competitiveness and maximum use of the resources that nature provides.

Naturally Vitro Video: <https://youtu.be/4oayZ08ips4>



RESPONSIBLE CORPORATE MANAGEMENT

We angle our actions and decisions towards a Responsible Corporate Management, so we maintain a strict adherence to high organizational standards and timely compliance with applicable regulations for socially responsible governance.

The Board of Directors, as the body responsible for establishing the policies and guidelines for the correct operation of Vitro, and the legal entities it controls, monitors the management, direction and execution of its corporate strategy.

Due to the best corporate governance practices, Vitro has been among the top 100 companies with the best corporate reputation in Merco's ranking and among the top 1,000 companies in Mexico by Mundo Ejecutivo Magazine.

Similarly, in the 2016 acquisition processes of the two new businesses, the execution was carried out in compliance with all regulations from relevant authorities, with absolute transparency and effective communication with the stakeholders.

During the reporting period, 42 percent of the Board members were independent, which demonstrates the Company's commitment with our shareholders and other stakeholders, since it represents a higher percentage than that required by Mexican law. In addition,

the process, assumptions and internal guidelines to qualify as an independent director in the Company, are stricter than the parameters established in the Mexican Securities Market Law.

Additionally, in 2016, the revisions to the Code of Ethics began, aiming to update it. This action was determined as part of a continuous improvement that will help us strengthen the base document that guides ethical behavior within Vitro.

In accordance with the goal of maintaining transparency in the management team and performance of the functions assigned to the Steering Committee, the Board of Directors and its intermediate bodies continue with the executive team's annual evaluation.

All these actions have led Vitro to become a model of the best sustainable practices. In keeping with its historical tradition and with the values that guide it, the Glass Company will continue to transform itself and work towards a sound and sustainable future for the communities where It operates.

To learn more details regarding sustainability actions carried out by Vitro, visit the 2016 Sustainable Development Report, available from May, 2017 on [www.vitro.com](http://www.vitro.com).

# FINANCIAL AND OPERATIONAL ANALYSIS

## ECONOMIC CONTEXT

During 2016, the business environment was influenced by several factors in the economic development of companies and countries. The growth of most emerging countries in general remained stable, and advanced economies continued to recover compared to previous years.

The main factor that favored manufacturing performance in Mexico was the sustained recovery of the United States during the year, since most Mexican exports go to this country.

In this regard, the automotive sector stands out within the growth of industrial activity in the United States. Inflation in Mexico for 2016 was within the levels of recent years, despite the pressures of the exchange rate against the US dollar.

Although, in the macroeconomic context, the peso depreciation of 19.5 percent was significant due to the political-electoral process in the United States, this benefited Mexican exports.

Then again, the Mexican economy faced a complex external environment, where the persistence of low oil prices, the normalization of monetary policy in the United States, a deceleration in international trade and global economic development and a diversity of geopolitical events raised risk aversion and financial volatility, posing challenges to Mexico's economic and financial stability, as well as its growth prospects.

In this context, lower oil prices influenced the revenues of countries such as Mexico, with a high dependence on hydrocarbon exports, with the result that the global Gross Domestic Product (GDP) maintained a growth similar to that of the previous year.

GDP Growth	2013	2014	2015	2016
Mexico	1.4%	2.3%	2.6%	2.3%
United States	1.7%	2.4%	2.6%	1.6%
Global	3.3%	3.4%	3.2%	3.1%

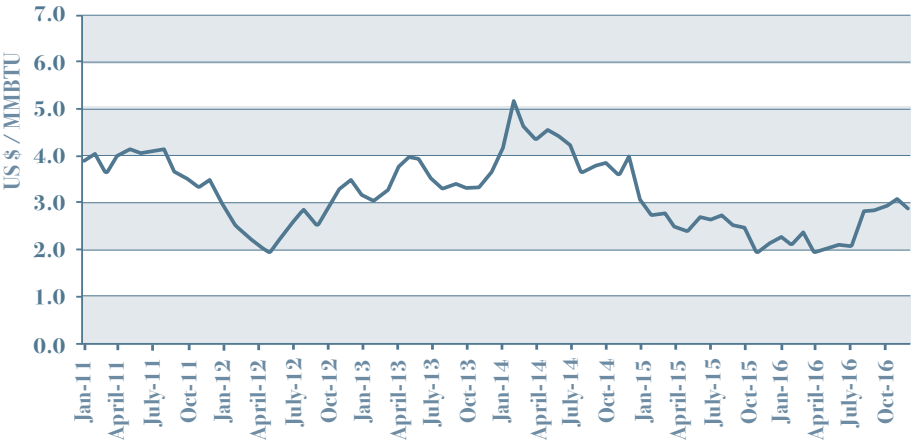
In Mexico, despite the complex macro-economic conditions and dependence on oil revenues, according to figures published by the Ministry of Finance and Public Credit (SHCP) in the General Criteria for Economic Policy, GDP growth was 2.3 percent, at the level of the last two years.

As of December 31, 2016, the exchange rate closed at \$20.62 Mexican pesos per US dollar, compared to \$ 17.25 pesos per US dollar at the end of 2015. This fluctuation in the exchange rate resulted in an annual depreciation of 19.5 percent, while for the annual average it depreciated by 17.1 percent, with an average exchange rate of \$18.72 Mexican pesos per US dollar in 2016, against \$15.98 pesos per dollar in 2015.

Regarding the exchange rate performance of the Mexican peso against the US dollar, there were several factors that influenced the fluctuation, being the main ones: the electoral process in the United States and its possible impact on the commercial relationship between the two countries; the change in the monetary policy of the Federal Reserve in the United States; and the drop in oil prices earlier this year.

	2013	2014	2015	2016
<b>Inflation in Mexico</b> (Based on the National Consumers Price Index)	4.0%	4.1%	2.1%	3.4%
<b>Inflation in the United States</b> (Based on the Consumers Price Index)	1.5%	0.8%	0.7%	2.1%
<b>Inflation differential United States / Mexico</b>	2.5%	3.3%	1.4%	1.3%
<b>Devaluation</b> (Appreciation) Mexican peso	0.9%	12.7%	17.0%	19.5%

## NATURAL GAS PRICE





During 2016, natural gas prices were on average the lowest since 1999 in the United States market, with which the gas price in Mexico is mainly referenced, due to higher temperatures. The average monthly natural gas price in 2016 was US\$ 2.49 per million BTU (MMBTU, British Thermal Unit) against US\$ 2.59 per MMBTU of First-Hand Sales (PMV) in 2015. However, at the end of 2016, the VPM Reynosa natural gas price was US\$ 2.92 per MMBTU, representing a 35 percent increase compared to US\$ 2.16 per MMBTU the previous year, due to higher average temperatures in the winter of 2015.

CONSOLIDATED OPERATING RESULTS

The amounts in dollars shown in this section are expressed in nominal dollars, which are obtained by dividing nominal pesos for each cycle by the exchange rate published by the Mexican Central Bank at the end of each period. Financial information since 2011 is reported pursuant to the International Financial Reporting Standards (IFRS).

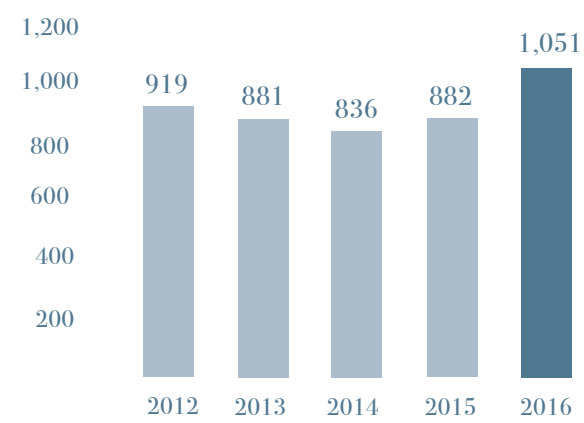
Following the integration of Architectural Vitro (formerly PPG Flat Glass and coatings), the Company has included this business' indicators in the Flat Glass business as of the fourth quarter of 2016.

SALES

For the year ended December 31, 2016, consolidated net sales were US\$ 1,051 million. Compared to US\$ 882 million in 2015, this represented an increase of 19.2 percent.

However, this increase was partially offset in pesos' revenues due to a 19.5 percent depreciation of the peso in 2016, lower export sales to the Latin American market in the construction segment and lower sales of the spare parts automotive segment.

CONSOLIDATED NET SALES (Million dollars)



GLASS CONTAINERS

The Glass Containers business unit grew 16.7 percent in sales, generating revenues of US\$ 240 million in 2016, compared to US\$ 205 million during the previous year. This result was driven by an increase in the sales volume to the pharmaceutical industry, due to an effective commercial strategy, as well as new added value products in production. Sales also benefited from an appropriate mix of prices in the perfume category.

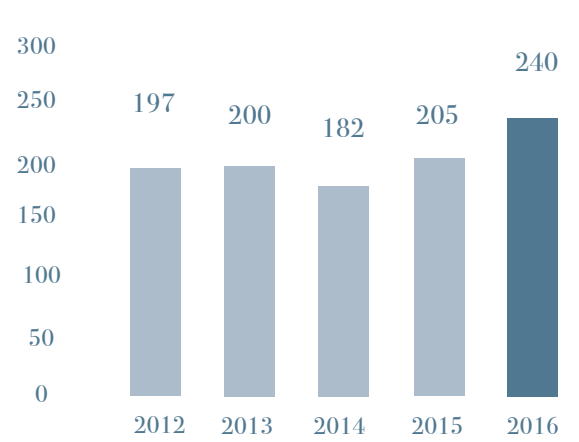
Sales of the Glass Containers business showed significant growth, reflecting a strong sales volume in the domestic pharmaceutical industry and an increase in exports of the fragrances sector.

Export sales increased by 10.8 percent, mainly due to constant attention and proximity with customers, agile response capacity, the development of new products and higher sales volumes to the United States, despite challenging conditions in the cosmetics industry in South America, registering US\$ 109 million during 2016, against US\$ 98 million in 2015.

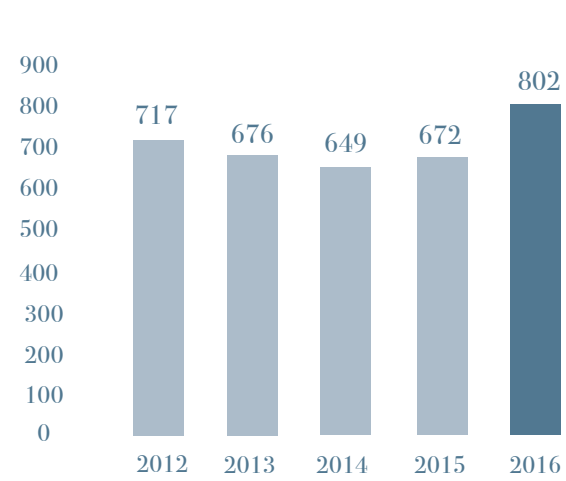
FLAT GLASS

In 2016, sales in the Flat Glass business unit increased 19.3 percent to US\$ 802 million against US\$ 672 million in 2015, driven by the booming construction segment, the growing automotive spare parts market in Mexico, and particularly by the integration of the business of flat glass and coatings in the United States and Canada. Export sales this year increased 1.5 percent to US\$ 163 million, compared to US\$ 161 million in 2015; the automotive original equipment segment continued to drive this export item, although offset by a drop in the sales of foreign subsidiaries, especially Colombia.

GLASS CONTAINERS NET SALES (Million dollars)



FLAT GLASS NET SALES (Million dollars)



EBIT AND EBITDA

During 2016, consolidated Operating Income before other expenses (EBIT) increased by 42.7 percent to US\$ 201 million, compared to US\$ 141 million in 2015. EBIT margin increased by 3.1 percentage points to 19.0 percent against 16.0 percent in the previous year.

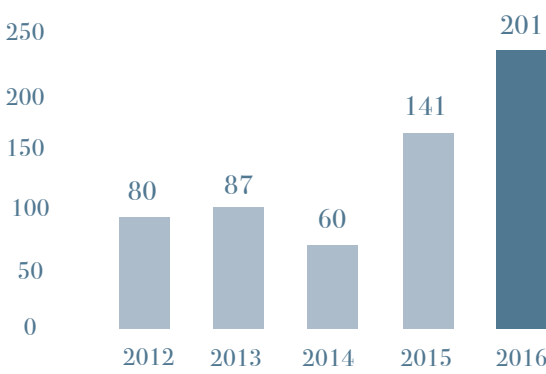
For the seventh consecutive year, Vitro managed to increase the Operating Flow (EBITDA). In 2016, consolidated EBITDA increased 34.7 percent to US\$ 259 million, compared to US\$ 193 million in 2015, while EBITDA margin increased 2.9 percentage points to 24.7 percent, against 21.8 percent in 2015.

Positive performance in both EBIT and EBITDA was achieved by maintaining strict control in cost reduction and operational efficiency measures, coupled with the constant work of the management team to focus the Company towards a sound growth.

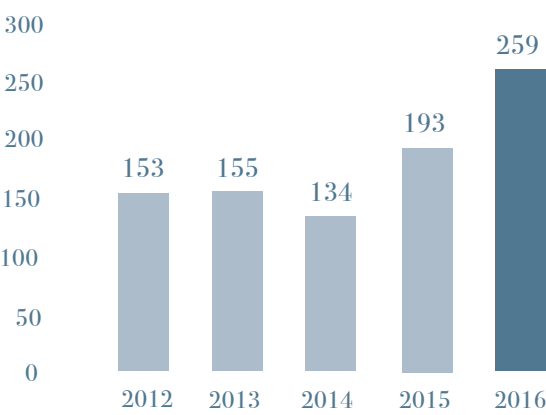
EBITDA was benefited in 2016 by the inclusion of Architectural Vitro (formerly PPG Flat Glass) subsidiary in the United States during the fourth quarter; in addition to higher sales volumes in the prestige segment of Cosmetics, Fragrances and Pharmaceuticals, a robust price mix as a result of the sale of products with higher added value, lower energy prices, greater utilization capacity and cost reduction initiatives.

The positive effect of the aforementioned effectively offset the impact of a Mexican peso depreciation against the US dollar of 19.5 percent accumulated at the end of the year.

CONSOLIDATED EBIT (Million dollars)



CONSOLIDATED EBITDA (Million dollars)



US\$1,051  
million  
Consolidated  
Net Sales

NET FINANCIAL COST

The Company's Net Financial Cost was US\$ 26 million in 2016, compared to US\$ 173 million recorded in 2015. This effect was due to the prepayment of the Company's total debt, resulting in a lower financial expense and a foreign exchange gain in 2016 against the loss recorded in 2015, going from a passive position to an active one of dollars, since the divestiture of the Food and Beverage Containers division.

INCOME TAX

During 2016 and 2015, the income taxes amounted to US\$ 29 and US\$ 13 million, respectively, the increase is mainly due to the amortization of tax losses from prior years; as well as the reasonable expectation in the recovery of tax losses pending amortization.

CONSOLIDATED NET INCOME

At the end of 2016, the Company reported a Consolidated Net Income of US\$ 189 million, compared to US\$ 1,445 million reported in 2015, mainly due to the fact that the 2015 figure represented an extraordinary situation, as was the divestiture of the Food and Beverages Containers business.



CAPITAL EXPENDITURES

Capital Expenditures made by the Company in 2016 amounted to US\$ 127 million, of which 72% was allotted to the Flat Glass business, while the remaining 28% corresponded to the Glass Containers business, in addition to modifications to the corporate building.

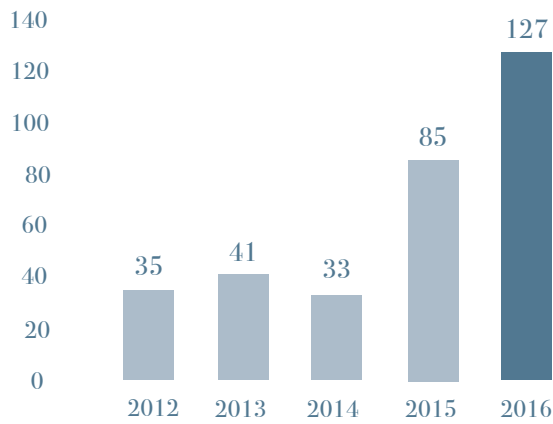
Investments made in the Flat Glass business unit were primarily allocated to the expansion and capacity increase of the Calcium Chloride plant, as well as to the repair of the float glass furnace in Mexicali.

In the Glass Containers business unit, the investments made were destined to capacity expansion in the business.

CONSOLIDATED FINANCIAL POSITION

As of December 31, 2016, the Company's total debt was US\$ 513 million, due to the credit for the acquisition of PPG's Flat Glass and Coating business, and had a cash balance of US\$ 240 million, compared to a cash balance of US\$ 414 million at the end of last year.

CAPEX (Million dollars)



5.5  
years  
Debt's average  
term

STOCK PERFORMANCE

In 2016, the Company's share capital (VITROA) on the Mexican Stock Exchange (BMV) continued to reflect the market's confidence in Vitro's initiatives to maintain its financial position and increase value for its shareholders.

These initiatives include optimizing costs and expenses, acquiring manageable debt, strengthening relationships with current customers and adding new clients, as well as developing and implementing an orderly plan to achieve organic business growth.

The price of Vitro's shares in the BMV was as follows:

2016 BMV Shares (Mexican pesos)		
	Minimum	Maximum
First Quarter	51.98	59.79
Second Quarter	56.09	62.54
Third Quarter	57.97	61.67
Fourth Quarter	54.22	64.49

EBIT  
US\$ 201  
million

# Relevant Events

## VITRO CELEBRATES ANNUAL ORDINARY GENERAL SHAREHOLDERS’ MEETING

On April 11, 2016, the Ordinary General Shareholders' Meeting was held in accordance with the notice published on March 23, 2016. At the Meeting, the annual reports from the Audit Committee and the Corporate Practices Committee were approved, as well as the reports from the Board of Directors and Chief Executive Office for the fiscal year ended December 31, 2015.

## VITRO ANNOUNCES AGREEMENT FOR ACQUISITION OF PPG’S FLAT GLASS BUSINESS

On July 21, 2016, Vitro announced the signing of a contract to acquire the PPG (NYSE: PPG) flat glass business assets.

The transaction’s value would approximately amount to US\$ 750 million, with the integration of four production plants with a total of five furnaces in the United States, a Flat Glass Research Center and four glass processing centers in Canada.

## VITRO’S SHAREHOLDERS APPROVE ACQUISITION OF PPG’S FLAT GLASS AND GLASS COATINGS BUSINESS

On September 21, 2016, at the General Shareholders' Meeting, the acquisition of the PPG Flat Glass and Glass Coating business was approved for US\$ 755 million.

Likewise, during the Meeting, approval was given to obtain financing in the amount of US\$ 500 million, to pay part of the operation’s price, the remainder will be covered with the Company’s available resources.

## VITRO ANNOUNCES US\$ 500 MILLION CREDIT AGREEMENT

On September 23, 2016, Vitro announced that it had signed a credit agreement with Banco Inbursa, S.A., Multiple Banking Institution, Grupo Financiero Inbursa, for an amount of US\$ 500 million with a maturity of seven years. This credit was allocated to the partial payment of the purchase price of the PPG (NYSE: PPG) Flat Glass and Glass Coatings business, with the remainder being covered by available resources from the issuer itself.

## VITRO COMPLETES PPG’S FLAT GLASS BUSINESS ACQUISITION AND ANNOUNCES INVESTMENT IN A LARGE SCALE COATER

On October 3, 2016, Vitro completed the acquisition transaction for the assets of the PPG (NYSE: PPG) flat glass business.

The transaction was approved by the governing bodies of both companies and by the corresponding regulatory authorities of the United States and Canada.

### New investment in coating equipment

The Company also announced the expansion of its coating capacity with the construction of a large scale coater, which will be built in one of the newly acquired business locations. Coaters are used to produce high-performance, energy efficient, low-emissions (Low-E) glass.

The coater will be capable of coating large-scale sizes, and is expected to be the largest of its kind in North America.



## VITRO ANNOUNCES AGREEMENT TO ACQUIRE FROM LKQ, PGW’S AUTOMOTIVE GLASS FOR ORIGINAL EQUIPMENT BUSINESS

On December 19, 2016, Vitro announced the signing of a definitive agreement to acquire the automotive glass for original equipment business from the Pittsburgh Glass Works (PGW), owned by LKQ Corporation (NASDAQ: LKQ), for US\$ 310 million.

The acquisition will be funded with US\$ 80 million from its own resources and a US\$ 230 million credit from BBVA Bancomer, which was signed simultaneously with this agreement.

Vitro will acquire seven automotive glass manufacturing plants and two satellite plants, as well as two float glass furnaces in the United States, an automotive glass plant in Poland and participation in two joint ventures located in Mexico and China.

## VITRO COMPLETES THE ACQUISITION OF PGW’S AUTOMOTIVE GLASS FOR ORIGINAL EQUIPMENT BUSINESS

Vitro completed the acquisition of Pittsburgh Glass Works (PGW) Automotive Glass for Original Equipment business from LKQ Corp. This acquisition completes the agreement announced last December for US\$ 310 million, free of cash and debt, which is subject to customary post-closing adjustments for this type of transactions.

The acquisition, which is added to the procurement of the PPG flat glass business completed last October, expands Vitro's presence with float glass manufacturing facilities and consolidates the Company as the leading glass manufacturer in North America.



# Additional Relevant Events

## VITRO, 2016 SOCIALLY RESPONSIBLE COMPANY

On April 21, 2016, for the ninth consecutive year, the Company received the Socially Responsible Company distinction granted by the Mexican Center for Philanthropy (Cemefi).

In order to obtain this distinction, Cemefi invited companies to present evidence supporting their projects and policies in five areas: social responsibility management, quality of life within the company, corporate ethics, community engagement and environment’s preservation.

## VITRO PUBLISHES ITS 2015 SUSTAINABLE DEVELOPMENT REPORT

On July 15, 2016, Vitro published its 2015 Sustainable Development Report, which includes the actions, accomplishments and goals achieved throughout the year in corporate ethics, environmental care, quality of life at work and community engagement.

The ninth consecutive report is presented under the G4 methodology established by the Global Reporting Initiative (GRI) and was verified by an independent third party. Thus, Vitro reiterates its commitment to contribute to its environment’s economic development, coupled with its sustainable responsibility towards the community where it operates.

## VITRO IS RECOGNIZED AS A CLEAN INDUSTRY

Vitro informed that, in May 2016, Vitro Automotriz S.A. de C.V., plants CRINAMEX and Shatterproof, received the recertification of Clean Industry from the Federal Environmental Protection Agency (PROFEPA).

In order to obtain this certification, the company had to undergo a comprehensive review of its environmental practices and safety processes, in order to verify the compliance degree with current environmental legislation.

## VITRO CONCLUDES VOLUNTEERING DAY

On November 3, 2016, Vitro reported that, as a result of its urban reforestation day, Naturally Vitro, 7,776 trees were planted, amounting to 69,455 trees adopted since the program began in 2007.

In 2016, in addition to performing the classic tree adoption volunteering, employees were invited to reforest urban areas such as parks, schools and protected natural areas. Since volunteers participated in synchrony with the community, 10 urban areas were reforested in three municipalities where Vitro operates: Toluca, State of Mexico, Garcia, Nuevo Leon and Mexicali, Baja California.

The average survival rate recorded from this project is 86 percent, a percentage significantly higher than similar programs carried out in rural areas, where trees do not have the direct care from volunteers.

In order to promote sustainable development, Vitro continues to advance and build urban reforestation with new methods in which the benefits extend to the communities where it has presence.

# Management’s Financial Responsibility

One of the responsibilities of the Management team is to prepare the Company’s financial statements and the additional financial information included in this Report. This responsibility includes ensuring that these financial statements and their notes are prepared in strict compliance with current International Financial Reporting Standards ("IFRS").

The Company has a sufficient administrative and computing structure to provide reasonable assurance that the accounting and financial records substantially reflect the transactions derived from its operations. Furthermore, the Audit and Internal Control areas validate on a recurring basis the proper use of assets, thus avoiding material impairment of the Company's assets.

In order to verify that internal control is sufficient and appropriate to the circumstances, the Company has policies and procedures established and communicated within the organization and its correct application is frequently validated through auditing programs to all relevant business cycles.

Pursuant to the aforementioned and in accordance with the General Provisions applicable to securities issuers and other securities market participants, Fourth Title, Article 33, Section I, Paragraph a), Item 3, regarding information that must be provided to the National Banking and Securities Commission, to Stock Exchanges and to investors, we inform the following of the company:

VITRO, S.A.B. de C.V.

The undersigned expressly declare that, within the scope of our respective functions, we prepared the information relating to the issuer contained in the annual financial statements, which, to the best of our knowledge, reasonably reflects its situation. Moreover, we state that we have no knowledge of material information that has been omitted or falsified in these financial statements or that they contain information that could mislead investors.

The Company's financial statements were audited by Galaz, Yamazaki, Ruiz Urquiza, S.C., a member of Deloitte Touche Tohmatsu, independent public accountants. Their audit was carried out in accordance with International Audit Standards. For more details about this Report, this document includes the complete external auditors’ report.

The Audit Committee of our Board of Directors, among other functions, ensures that the Administration complies with the applicable regulations for the proper registration and disclosure of the transactions it executes.

The Audit Committee meets regularly with the Administration, as well as with internal and external auditors. This Committee selects, authorizes the compensation and supervises the work of the firm that audits our financial statements. In addition, said Committee is the only one with capacity to authorize the appointment of the independent auditor for any service different or supplementary to the auditing duties.

The external and internal auditors have free and complete access to the Auditing Committee and they meet to discuss their duties, scope, internal controls and issues related to financial reporting.



**Adrián Sada Cueva**  
Chief Executive Officer



**Claudio L. del Valle Cabello**  
Chief Financial and Administrative Officer

March 14, 2017



# Consolidated Financial Statements

As of December 31, 2015 and 2016 and for the Years Ended  
December 31, 2015 and 2016, and Independent  
Auditors' Report Dated March 14, 2017

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Independent Auditors’ Report

To the Board of Directors and Stockholders of Vitro, S.A.B. de C.V. and Subsidiaries

Opinion

We have audited the consolidated financial statements of Vitro, S. A. B. de C. V. and Subsidiaries (the “Company”), which comprise the consolidated statements of financial position as of December 31, 2016 and 2015, the statements of profit or loss and other comprehensive income, changes in stockholders’ equity, and cash flows for the years then ended, and the notes to the consolidated financial statements that include a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2016 and 2015, and their consolidated financial performance and their consolidated cash flows, for the years then ended in accordance with International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board.

Basis for Opinion

We conducted our audits in accordance with International Standards on Auditing (ISA). Our responsibilities under those standards are further described in the *Auditor’s Responsibilities for the Audit of Consolidated Financial Statements* section of our report, in accordance with the International Ethics Standards Board for Accountants’ *Code of Ethics for professional Accountants (IESBA Ethics Code)* and with the Ethics Code issued by the Mexican Institute of Public Accountants (*IMCP Ethics Code*), and we have fulfilled our other ethical responsibilities in accordance with the IESBA and IMCP Ethics Code. We consider that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were more important in our audit of the current period consolidated financial statements. These matters have been addressed in the context of our audit of the consolidated financial statements as a whole and in the disclosure of our opinion thereon, and we do not express a separate opinion on those audit matters. We have determined that the matters described below are the key audit matters to be disclosed in our report.

Business acquisition

As mentioned in Notes 2 b) and 11 to the consolidated financial statements, the Company acquired the net assets of the Flat Glass and Coating Business from PPG Industries, Inc., PPG Canada, Inc. and PPG Industries Ohio, Inc. The acquisition price of the transaction amounted to US\$750 million, including 4 production plants with a total of 5 furnaces in the U.S., 4 glass coating machines in the U.S., a flat glass investigation center, and 4 glass processing centers in Canada.

Due to the significance of this transaction and its effects in the consolidated financial statements, our audit tests consisted of:

- i) Ensuring the correct approval of this acquisition from the Company’s governing bodies.
- ii) Verifying the fulfillment of the obligations set forth in the corresponding purchase agreement.
- iii) Determining the preliminary purchase price allocation and valuation of the corresponding intangible assets, involving specialists to support us in assessing the assumptions and methodology used by the Company.

Long- term debt

On September 23, 2016, the Company entered into a loan with Banco Inbursa, S.A., Institución de Banca Múltiple. These funds were used to acquire the flat glass business described in the preceding paragraph. As mentioned in Note 2 d) to the consolidated financial statements, the amount of the loan amounts to US\$500 million.

As a result of the significance of this transaction and its effects in the consolidated financial statements, whose characteristics are described in Note 14 to the consolidated financial statements, our audit tests consisted of the following:

- i) Ensuring the correct approval of the debt from the Company’s governing bodies.
- ii) Verifying the compliance with restrictions and obligations under the corresponding agreement.
- iii) Obtaining the confirmation from the financial institution to validate the outstanding principal balance, and its correct valuation, as well as the amount of accrued interest.
- iv) Reviewing the appropriate disclosure of financial risks in the consolidated financial statements.
- v) Reviewing the appropriate presentation of the debt in the consolidated statement of financial position and in the consolidated statement of cash flows.

Asset impairment analysis

As described in Note 4 n) to the consolidated financial statements, the Company reviews on an annual basis the carrying amount of long-lived assets in use to determine whether they are impaired, as they might not be recoverable through their value in use. The impairment analysis involves analyzing assumptions affected by future expectations of the results of the Company’s operations; accordingly, our audit procedures included:

- i) Evaluating the methodology applied to determine the value in use.
- ii) Challenging the assumptions used in the projected cash flows with reference to historical data and market expectations.
- iii) Assessing in an independent manner the discount rate used in the impairment model.
- iv) Challenging the sensitivity analyses prepared by the Company.
- v) Involving our specialists to support us in the assessment of the assumptions and methodology used by the Company.

Deferred taxes

As described in Note 4 q) to the consolidated financial statements, the Company recognizes deferred income taxes on differences between carrying amounts and the tax basis of assets and liabilities, and benefits from tax-loss carryforwards. IFRS requires that the carrying amount of deferred tax assets be reduced to the probable amount the expected taxable income will allow for the utilization of the related asset.

Our audit procedures to assess management’s estimate regarding the probability of recovering their deferred tax assets included:

- i) Analyzing the trends of the tax results generated by each subsidiary.
- ii) Reviewing the financial and tax projections to determine whether generating taxable income in the future will allow for the utilization of tax losses before their expiration.
- iii) Involving a tax expert to assess the assumptions and methodologies used by the Company.

The Company’s disclosures on the amounts that give rise to the deferred taxes balance are included in Note 24 to the consolidated financial statements.

Other information

Management is responsible for the other information, which comprises information included in the annual report (but does not include the consolidated financial statements or our audit report). It is expected that the annual report will be available for our reading after the date of this audit report.

Our opinion of the consolidated financial statements will not cover the other information and we will not express any form of assurance about it.

In connection with our audit of the consolidated financial statements, our responsibility will be to read the other information, when available, and when we do so, to consider whether the other information contained therein is materially inconsistent with the consolidated financial statements or with our knowledge obtained during the audit, or it appears to contain a material error. If based on the work that we have done, we conclude that there is a material error in the other information, we would have to report that fact. We have nothing to report on this matter.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with IFRS, and for the internal control that management determines necessary for the preparation of consolidated financial statements that are free from material misstatements, due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company’s ability to continue as a going concern, disclosing, as applicable, matters related to this fact and using going concern basis of accounting. Unless management either intends to liquidate the Company or to cease its operations, or there is no realistic alternative but to do so.

Those charged with governance of the Company are responsible for overseeing the Company’s consolidated financial reporting process.

Auditors’ responsibilities relating the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors’ report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or altogether, they could reasonably be expected to influence the economic decisions that users take on the basis of these consolidated financial statements.

As part of an audit in accordance with ISA, we exercise professional judgement and maintain professional skepticism throughout the audit. We also:

- Identify and asses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or circumvention of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in relation of the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the management.
- Conclude on the appropriateness of management’s use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company’s ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors’ report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors’ report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including disclosed information, and whether the consolidated financial statements represent the relevant transactions and events in a manner that achieves reasonable presentation.
- Obtain sufficient and appropriate in relation to the financial information of the entities or business activities impacting the Parent Company to express our opinion on the consolidated financial statements. We are responsible for the management, oversight and performance of the audit of the Parent Company. We are responsible for our opinion on the audit.

We inform to those charged with the Company’s governance in relation to, among other matters, the scope and the moment to perform the planned audit procedures and the significant findings of the audit, as well as any significant deficiencies in internal control that we identified during the audit.

We also provide to those charged with the Company’s governance a statement on our fulfillment of the ethical requirements related to independence, and we have informed to them about all relationships and other matters that may, on a reasonable manner, be expected to affect our independence, and where applicable, the related safeguards.

Among the matters that have been subject of communications with those charged with the Company’s governance, we determined that they have been of the greatest significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in this audit report unless legal or regulatory requirements prohibit public disclosure of the matter or, in extremely rare circumstances, we determine that a matter should not be reported in our report because it can reasonably be expected that the adverse consequences thereof would exceed the benefits of public interest of the same.

Galaz, Yamazaki, Ruiz Urquiza, S. C.  
Member of Deloitte Touche Tohmatsu Limited



**Fernando Noguera Conde, C. P. C.**

Monterrey, N.L. March 14, 2017



Vitro, S.A.B. de C.V. and Subsidiaries

Consolidated Statements of Financial Position

As of December 31, 2015 and 2016  
(Millions of Mexican pesos)

		December 31,		Translation into millions of U.S. dollars December 31,	
	Note	2015	2016	2016	
<b>ASSETS</b>					
Cash and cash equivalents	17	\$ 7,137	\$ 4,958	US\$	240
Trade accounts receivable, net	6, 17	2,399	4,181		203
Recoverable taxes	17	184	265		13
Other current assets	5	357	607		30
Inventories, net	7	2,217	3,654		177
Current assets		12,294	13,665		663
Investment in associated companies	8	1,409	1,761		85
Investment properties	10	355	359		17
Lands and buildings, net	9	4,787	6,633		322
Machinery and equipment, net	9	3,665	9,098		441
Investments in process	9	929	1,617		78
Deferred income taxes	24	3,609	4,102		199
Employee benefits	16	428	765		37
Goodwill	12	—	963		47
Intangibles and other long-term assets, net	13	256	6,468		314
Long-term assets		15,438	31,766		1,540
Total assets		\$ 27,732	\$ 45,431	US\$	2,203

See accompanying notes to consolidated financial statements.

  
**Adrián Sada Cueva**  
Chief Executive Officer

  
**Claudio L. Del Valle Cabello**  
Chief Administrative and Financial Officer

		December 31,		Translation into millions of U.S. dollars December 31,	
	Note	2015	2016	2016	
<b>LIABILITIES</b>					
Short-term maturity of long-term debt	14, 17	\$ 13	\$ 30	US\$	1
Trade accounts payable	17	1,057	2,402		116
Accrued expenses and provisions	15, 17	1,041	1,438		70
Derivative financial instruments	17	132	—		—
Other short-term liabilities	5, 17	1,454	1,844		90
Short-term liability		3,697	5,714		277
Long-term debt	14	—	10,555		512
Deconsolidation income tax		3,851	3,439		167
Deferred income taxes	24	—	941		46
Other liabilities		40	66		3
Long-term liability		3,891	15,001		728
Total liabilities		7,588	20,715		1,005
<b>STOCKHOLDERS' EQUITY</b>					
Capital stock	19	4,687	4,687		227
Repurchased shares		(3)	(3)		—
Additional paid-in capital		3,245	4,415		214
Other comprehensive income	19	158	1,760		85
Accumulated earnings	19	10,605	13,839		671
Controlling interest		18,692	24,698		1,197
Non-controlling interest	19	1,452	18		1
Stockholders' equity		20,144	24,716		1,198
Liabilities and Stockholders' equity		\$ 27,732	\$ 45,431	US\$	2,203

See accompanying notes to consolidated financial statements.

Vitro, S.A.B. de C.V. and Subsidiaries

Consolidated Statements of Profit or Loss and Other Comprehensive Income

For the years ended December 31, 2015 and 2016  
(Millions of Mexican pesos, except the amounts per share)

		Year ended December 31,		Translation into millions of U.S. dollars, except the amounts per share	
	Note	2015	2016	2016	
Continuing operations:					
Net sales		\$ 14,127	\$ 19,840	US\$	962
Cost of sales		9,449	12,675		615
Gross profit		4,678	7,165		347
Administrative expenses		1,352	1,566		76
Distribution and sale expenses		1,063	1,820		88
Income before other expenses, net		2,263	3,779		183
Other expenses, net	22	7	295		14
Operating income		2,256	3,484		169
Financial income (cost), net	23	(2,711)	476		23
Equity in income of associated companies	8	114	102		5
Income (loss) before income taxes		(341)	4,062		197
Income taxes expense	24	271	496		25
Income (loss) from continuing operations		(612)	3,566		172
Discontinued operations:					
Income from discontinued operations, net of taxes	20	24,800	—		—
Income of the year		\$ 24,188	\$ 3,566	US\$	172
Other components of comprehensive income:					
Items that will not be reclassified to profit or loss:					
Actuarial remeasurements of the defined benefit obligation, net of taxes	16	\$ 514	\$ 583	US\$	28
Total items that will not be reclassified to profit or loss		\$ 514	\$ 583	US\$	28
Items that can be reclassified to profit or loss:					
Differences from cumulative translation adjustments	19	\$ 214	\$ 1,116	US\$	54
Total items that can be reclassified to profit or loss		214	1,116		54
Total other components of comprehensive income		728	1,699		82
Total comprehensive income of the year		\$ 24,916	\$ 5,265	US\$	254

		Year ended December 31,		Translation into millions of U.S. dollars, except the amounts per share	
	Note	2015	2016	2016	
Total income (loss) of the year attributable to:					
Controlling interest	19	\$ 23,600	\$ 3,618	US\$	175
Non-controlling interest	19	588	(52)		(3)
Total income of the year		\$ 24,188	\$ 3,566	US\$	172
Total comprehensive income of the year attributable to:					
Controlling interest	19	\$ 24,085	\$ 5,220	US\$	252
Non-controlling interest	19	831	45		2
Total comprehensive income of the year		\$ 24,916	\$ 5,265	US\$	254
Earnings per common share arising from continuing operations and discontinued operations:					
Basic and diluted earnings per share		\$ 48.85	\$ 7.49	US\$	0.36
Earnings (loss) per common share arising from continuing operations:					
Basic and diluted earnings (loss) per share		\$ (2.48)	\$ 7.49	US\$	0.36
Earnings per common share arising from discontinued operations:					
Basic and diluted earnings per share		\$ 51.33	\$ —	US\$	—

See accompanying notes to consolidated financial statements.



Vitro, S.A.B. de C.V. and Subsidiaries

Consolidated Statements of Cash Flows

For the years ended December 31, 2015 and 2016  
(Millions of Mexican pesos)

		Year ended December 31,	Translation into millions of U.S. dollars		
	Note	2015	2016	2016	
Cash flows in operating activities:					
Income (loss) before income taxes		\$ (341)	\$ 4,062	US\$	197
Adjustments for:					
Depreciation and amortization	9	775	1,025		50
Results on sale of assets		109	11		1
Loss from impairment of long-lived assets	9c, 22	–	136		6
Reversal of impairment loss	22	(56)	–		–
Financial products	23	(81)	(51)		(2)
Equity in income of associated companies	8	(114)	(102)		(5)
Derivative financial instruments	23	162	11		1
Foreign exchange loss and other		1,574	216		10
Interest payable	23	1,324	261		12
		3,352	5,569		270
Changes in working capital:					
Trade accounts receivable		(793)	(26)		(1)
Inventories		(188)	288		14
Suppliers		378	183		9
Other short-term operating assets and liabilities		533	169		8
Employee benefits		184	(317)		(15)
		114	297		15
Income taxes		(335)	(283)		(14)
Discontinued operation	20	1,976	–		–
Cash flows provided by operating activities		5,107	5,583		271

		Year ended December 31,	Translation into millions of U.S. dollars		
	Note	2015	2016	2016	
Cash flows in investing activities:					
Purchase of machinery and equipment	9	(1,373)	(2,154)		(104)
Sale of property, machinery and equipment		33	78		4
Business acquisition, net of acquired cash	11	–	(14,311)		(694)
Sale of subsidiaries' equity		35,068	–		–
Restricted cash		176	–		–
Intangibles and other assets		(24)	(217)		(11)
Interest collected		78	54		3
Discontinued operation	20	(848)	–		–
Cash flows (used in) provided by investing activities		33,110	(16,550)		(802)
Cash flows in financing activities:					
Interest paid		(1,230)	(164)		(8)
Dividends paid		(12,828)	(384)		(19)
Long-term loans obtained		–	9,689		470
Purchase of minority interest	19f	–	(309)		(16)
Debt issuance costs	14	–	(54)		(3)
Payment of loans		(19,320)	(44)		(2)
Derivative financial instruments		(188)	(144)		(7)
Discontinued operation	20	(17)	–		–
Cash flows provided by (used in) financing activities		(33,583)	8,590		415
Net (decrease) increase in cash and cash equivalents:		4,634	(2,377)		(116)
Cash and cash equivalents as of January 1,		2,471	7,137		346
Effect of exchange fluctuations		32	198		10
Cash and cash equivalents as of December 31,	17	\$ 7,137	\$ 4,958	US\$	240

See accompanying notes to consolidated financial statements.

Vitro, S.A.B. de C.V. and Subsidiaries

Consolidated Statements of Changes in Stockholders’ Equity

For the years ended December 31, 2015 and 2016  
(Millions of Mexican pesos)

	Capital stock	Repurchased shares and additional paid-in capital	Cumulative translation adjustments	Actuarial remeasurements	Accumulated earnings	Controlling interest	Non-controlling interest	Total stockholders' equity
Balances as of January 1, 2015	\$ 4,687	\$ 3,079	\$ 213	\$ (540)	\$ (691)	\$ 6,748	\$ 1,325	\$ 8,073
Application to accumulated earnings (losses) (note 19b)		(541)			541			
Dividends declared (note 19d)					(12,845)	(12,845)		(12,845)
Purchase of non-controlling interest (note 19c)		704				704	(704)	
Comprehensive income (loss):								
Other components of comprehensive income of the year			59	502		561	243	804
Discontinued operations (note 20)			(88)	12	24,800	24,724		24,724
Net consolidated (loss) income of the year					(1,200)	(1,200)	588	(612)
Comprehensive income of the year	—	—	(29)	514	23,600	24,085	831	24,916
Balance as of December 31, 2015	4,687	3,242	184	(26)	10,605	18,692	1,452	20,144
Dividends declared (note 19d)					(384)	(384)		(384)
Purchase of non-controlling interest (note 19f)		1,170				1,170	(1,479)	(309)
Comprehensive income (loss):								
Other components of comprehensive income of the year			1,019	583		1,602	97	1,699
Net consolidated income (loss) of the year					3,618	3,618	(52)	3,566
Comprehensive income of the year	—	—	1,019	583	3,618	5,220	45	5,265
Balances as of December 31, 2016	\$ 4,687	\$ 4,412	\$ 1,203	\$ 557	\$ 13,839	\$ 24,698	\$ 18	\$ 24,716

See accompanying notes to consolidated financial statements.



Vitro, S.A.B. de C.V. and Subsidiaries

Notes to consolidated financial statements

As of December 31, 2015 and 2016  
(Millions of Mexican pesos)

1. THE COMPANY’S ACTIVITY

Vitro, S.A.B. de C.V. (“Vitro” and jointly with its subsidiaries the “Company”) is a holding company which together with its subsidiaries are mainly engaged in the manufacture and commercialization of glass products for local and foreign markets, to mainly satisfy the needs of two types of business: glass containers and flat glass. The Company processes, distributes and commercializes a broad range of glass containers for cosmetics and pharmaceutical markets and flat glass goods for architectural and automotive use; similarly, the Company is engaged in the manufacture of Soda Ash and other related by products, equipment and capital goods for industrial use. Vitro’s corporate offices are located at Avenida Ricardo Margáin Zozaya No. 400, Colonia Valle del Campestre, San Pedro Garza García, Nuevo León, México, 66265.

2. SIGNIFICANT EVENTS

2016

- a) Dividends declared  
At an Ordinary General Stockholders’ Meeting held on April 11, 2016, the stockholders agreed to declare and pay dividends at a rate of US\$0.0455 per share (note 19d).
- b) Acquisition of PPG’s Flat Glass Business  
On July 20, 2016, Vitro entered into a sale and purchase agreement with PPG Inc. (“PPG”), the latter engaging to sell its Flat Glass Business to Vitro and/or its subsidiaries at a price of approximately US\$750 less existing debt and working capital adjustments (note 11). The acquisition incorporated four manufacturing plants with five furnaces, and four flat glass coaters in the United States, a research and development center of flat glass, and four distribution and fabrication facilities in Canada. The sale price was settled throughout a third-party credit agreement (note 2d) and Vitro’s own resources.  
  
On October 1, 2016, Vitro successfully concluded the acquisition of the Flat Glass Business from PPG. Vitro also announced the expansion of its coating production capability with the construction of a jumbo MSVD glass coater, which will be constructed at an existing location of the newly acquired business. MSVD coaters are utilized to produce high-performing, energy-efficient low-emissivity (Low-E) glass.  
  
To date, the Company’s management, supported by independent experts, has performed the purchase price allocation to the fair value of the net assets acquired, as well as the goodwill calculation; even though IFRS allows the modification of the initially allocated values within a twelve-month period from the acquisition date. The Company’s management considers that any potential modifications would not be material.
- c) Purchase of minority interest  
On August 18, 2016, Vitro and its minority partner Pilkington entered into a sale and purchase agreement of the shareholding interest that the latter had on Vitro’s flat glass business at a purchase price settled in US\$16.
- d) Signing of credit agreement  
On September 23, 2016, Vitro entered into a credit agreement with Banco Inbursa, S.A., Institución de Banca Múltiple, Grupo Financiero Inbursa for the amount of US\$500, which accrues variable interest at a rate based on the London Interbank Offered Rate (“LIBOR”) + 4.15%, maturing in 2023. These resources were used for the payment of part of the purchase price of PPG’s Flat Glass Business (note 2b and 14).

- e) Acquisition of PGW’s automotive Original Equipment Manufacturer business and subsequent event  
On December 18, 2016, Vitro entered into a definitive agreement to acquire the glass automotive business for original equipment of Pittsburgh Glass Works LLC (“PGW”). The transaction price was US\$310, funded with US\$80 from Vitro’s own resources and a credit agreement for the remaining US\$230 from BBVA Bancomer, S.A., Institución de Banca Múltiple, Grupo Financiero BBVA Bancomer (“BBVA Bancomer”), which was signed simultaneously with this agreement. Vitro is acquiring seven manufacturing plants, two satellite facilities and two float glass furnaces in the United States, one manufacturing plant in Poland and an equity share in two joint arrangements located in North America and China. This transaction was concluded successfully on March 1, 2017 (note 26).

2015

- f) Sale of the food and beverages glass containers business  
On May 12, 2015, the Company signed an agreement with Owens-Illinois, Inc. (“O-I”) accepting a bid to sell its food and beverages glass containers business. The transaction is valued, cash and debt free, at US\$2,150, and included the sale are five food and beverages glass container manufacturing plants in Mexico, one plant in Bolivia, and the distribution of such products in the USA, excluding the cosmetic business, the machinery and equipment business, the chemical business, and Vitro’s participation in Empresas Comegua, S.A. and Subsidiaries (“Comegua”). This agreement was approved by Vitro’s stockholders at an Ordinary General Stockholders’ Meeting held on July 7, 2015.  
  
On September 1, 2015, the food and beverages glass container transaction concluded successfully. The transaction was approved by the governing bodies of both entities and by the relevant regulatory authorities in Mexico and the USA. This completes the transfer of the food and beverages glass containers business from Vitro to O-I. Part of the proceeds of the transaction were used to prepay practically all the Company’s debt, including the accrued interest.  
  
As explained in note 20, the operations held subject to this transaction, as of the date of its conclusion, are presented as discontinued, and its profit or loss, and cash flows are presented separately in these consolidated financial statements.
- g) Expansion of production capacity for flat glass  
On August 17, 2015, the Company announced the expansion of its production capacity of flat glass, through the construction of a new float glass furnace in Mexico, which it is estimated to become operational in late 2018. In addition to this expansion, the float glass furnace operating in Mexicali, entered to a repairing phase in late 2016 that also was used to expand its production capacity. Net investment for the new furnace would be approximately US\$85, given that the Company will utilize some equipment in good condition from its float glass furnace that was closed in Mexico City in 2006.
- h) Prepayment of collection right securitization program  
On August 27, 2015, the Company prepaid the Stock Exchange Trust Certificates issued on November 2013 for \$1,200 along with accrued interest at such date. This transaction was performed through a bridge loan, which was liquidated with part of the proceeds of the sale of the food and beverages glass containers business (note 2f and 14).
- i) Exercise of stock option related to industrial lands  
On August 28, 2015 Mr. David Martinez Guzman acquired 93,099,849 representative shares of the capital stock of Vitro through the exercise of a purchase option granted under an option agreement signed on December 15, 2009. In consideration for the exercise of this option, Mr. David Martinez Guzman granted Vitro and the Trust No. 428-09 the rights over certain land in which five Vitro manufacturing plants are located, which are part of the assets included in the sale of the food and beverage glass container business (note 2f).
- j) Dividends declared  
At an Ordinary General Stockholders’ Meeting held on September 18, 2015, stockholders agreed to declare and pay dividends at a rate of US\$1.5542 per share (note 19d).

3. BASIS OF PREPARATION AND CONSOLIDATION

a) Basis of preparation

The consolidated financial statements as of December 31, 2015 and 2016 and for the years then ended, were prepared based on International Financial Reporting Standards (“IFRS”) issued by the International Accounting Standards Board (“IASB”).

The accompanying consolidated financial statements were prepared based on historical costs, which includes the disclosure of the deemed cost, except for certain financial instruments which are recorded based on their amortized cost or fair value, and investment properties which are recorded at fair value. The historical cost is generally based on the fair value of the consideration granted in exchange for the assets.

i. New IFRS's issued but not yet effective

The Company has not applied the following new and revised IFRS that have been issued, but that are not yet effective for periods beginning January 1, 2016.

IFRS 9, *Financial Instruments*

IFRS 9, “Financial Instruments” issued in July 2014, is the replacement of IAS 39, “Financial Instruments: Recognition and Measurement”. This standard includes requirements for recognition and measurement, impairment, derecognition and general hedge accounting. This version supersedes all previous versions and is mandatorily effective for periods beginning on or after January 1, 2018, with early adoption being permitted. IFRS 9 (2014) does not replace the requirements for portfolio fair value hedge accounting for interest rate risk since this face of the project was separated from the IFRS 9 project.

IFRS 9 (2014) is a complete standard that includes the requirements previously issued and the additional amendments to introduce a new expected loss impairment model and limited changes to the classification and measurement requirements for financial assets. More specifically, the new impairment model is based on expected credit losses rather than incurred losses, and will apply to debt instruments measured at amortized cost or FVTOCI, lease receivables, contract assets and certain written loan commitments and financial guarantee contracts. Regarding the new measurement category of FVTOCI, it will apply for debt instruments held within a business model whose objective is achieved both by collecting contractual cash flows and selling financial assets.

The Company is in the process of assessing the potential impacts from the adoption of this standard in their consolidated financial statements.

IFRS 15, *Revenue from Contracts with Customers*

IFRS 15, “Revenue from Contracts with Customers”, was issued in May 2014 and applies to annual reporting periods beginning on or after 1 January 2018, earlier application is permitted. The standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. In applying the revenue model to contracts within its scope, an entity will: 1) Identify the contract(s) with a customer; 2) Identify the performance obligations in the contract; 3) Determine the transaction price; 4) Allocate the transaction price to the performance obligations in the contract; 5) Recognize revenue when (or as) the entity satisfies a performance obligation. Also, an entity needs to disclose sufficient information to enable users of financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers.

During 2016, the Company's management began a preliminary analysis to identify the gaps in its current accounting policy for revenue recognition and the new requirements of IFRS 15. The most significant issues that the Company's management believes may represent a potential impact in the consolidated financial statements, are the following:

- a) In the Glass containers segment, the Company has contractual agreements with its customers in which no significant separate performance obligations are identified; however, in these agreements, there are variable considerations, such as returns and discounts, which are being analyzed to determine their impact on the transaction price determination and its allocation to each performance obligation; and
- b) In the Flat glass segment, the Company's management has identified that the contractual agreements, maintained within the automotive sector, should be analyzed specifically, since they establish certain clauses related to the tools needed for production, which may represent an impact on revenue recognition in the consolidated financial statements. In addition, management has not identified separable performance obligations in the agreements maintained with customers.

As of December 31, 2016, and as of the date of issuance of these consolidated financial statements, the Company's management continues with the process of analysis and quantification of impacts and considers that at such dates there is no evidence of any significant effects arising from the forthcoming adoption of this standard.

IFRS 16, *Leases*

IFRS 16, “Leases” was issued in January 2016 and supersedes IAS 17, “Leases” and related interpretations. The new standard brings most leases on-balance sheet for lessees under a single model, eliminating the distinction between operating and finance leases. Lessor accounting, however, remains largely unchanged and the distinction between operating and finance leases is retained. IFRS 16 is effective for periods beginning on or after January 1, 2019, with earlier adoption permitted if IFRS 15 “Revenue from Contracts with Customers” has also been applied.

Under IFRS 16 a lessee recognizes a right-of-use asset and a lease liability. The right-of-use asset is treated similarly to other non-financial assets and depreciated accordingly and the liability accrues interest. This will typically produce a front-loaded expense profile (whereas operating leases under IAS 17 would typically have had straight-line expenses) as an assumed linear depreciation of the right-of-use asset and the decreasing interest on the liability will lead to an overall decrease of expense over the reporting period.

The lease liability is initially measured at the present value of the lease payments payable over the lease term, discounted at the rate implicit in the lease if that can be readily determined. If that rate cannot be readily determined, the lessee shall use their incremental borrowing rate.

However, a lessee may elect to account for lease payments as an expense on a straight-line basis over the lease term for leases with a lease term of 12 months or less and containing no purchase options (this election is made by class of underlying asset); and leases where the underlying asset has a low value when new, such as personal computers or small items of office furniture (this election can be made on a lease-by-lease basis).

IFRS 16 establishes different transitional provisions, including retrospective application or the modified retrospective application where the comparative period is not restated.

The Company visualizes potential impacts on the consolidated financial statements arising from the adoption of this new standard, primarily because it maintains some leases currently classified as operating leases, related mainly to rental of warehouses and equipment. Vitro's management is in the process of defining what the transition option will be in adopting the standard.



Amendments to IAS 12, *Income Taxes*

Amendments to IAS 12, “Income Taxes”, clarify that unrealized losses on debt instruments measured at fair value and measured at cost for tax purposes give rise to a deductible temporary difference regardless of whether the debt instrument's holder expects to recover the carrying amount of the debt instrument by sale or by use. Additionally, they specify that the carrying amount of an asset does not limit the estimation of probable future taxable profits and when comparing deductible temporary differences with future taxable profits, these exclude tax deductions resulting from the reversal of those deductible temporary differences. These amendments are effective for annual periods beginning on January 1, 2017 with retrospective application, although earlier application is permitted. The Company is in the process of determining the potential impacts that will derive in its consolidated financial statements from the adoption of these amendments.

The Company did not have any impacts on its consolidated financial statements arising from the adoption of the amendments since it does not maintain debt instruments measured at fair value.

Amendments to IAS 7, *Statement of cash flows* (disclosure initiative)

The amendments to IAS 7, “Statement of Cash Flows”, require that the following changes in liabilities arising from financing activities are disclosed separately from changes in other assets and liabilities: (i) changes from financing cash flows; (ii) changes arising from obtaining or losing control of subsidiaries or other businesses; (iii) the effect of changes in foreign exchange rates; (iv) changes in fair values; and (v) other changes.

One way to fulfill the new disclosure requirement is to provide a reconciliation between the opening and closing balances in the statement of financial position for liabilities arising from financing activities.

Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the statement of cash flows as cash flows from financing activities. The new disclosure requirements also relate to changes in financial assets if they meet the same definition.

These amendments are effective for annual periods beginning on or after 1 January 2017 with earlier application permitted, and entities need not provide comparative information when they first apply them.

The Company will have disclosure impacts by adopting the amendments to IAS 7, “Statement of Cash Flows”, from January 1, 2017, which will be disclosed in its consolidated financial statements for the year ended December 31, 2017, since relevant financing items are maintained, and will therefore require the aforementioned reconciliations.

b) Basis of consolidation of financial statements

The consolidated financial statements include those of Vitro, S.A.B. de C. V. and its subsidiaries on which it has control. Control is achieved when the Company: 1) has the power over the entity; 2) it is exposed, or has rights to variable returns from its involvement with the investee; and 3) has the ability to use its power to affect its returns. Power is the actual ability to direct relevant activities of an entity. Intercompany balances and transactions have been eliminated in these consolidated financial statements. Investments in unconsolidated associates where there is material influence are accounted for using the equity method (note 8).

As of December 31, 2015 and 2016, the main Mexican entities, except otherwise indicated, controlled by Vitro are as follows:

FLAT GLASS

Viméxico, S.A. de C.V.	100.00%	Cristales Automotrices, S.A. de C.V.	51.00%
Vidrio y Cristal del Noroeste, S.A. de C.V.	100.00%	Productos de Valor Agregado en Cristal, S.A. de C.V.	100.00%
Comercializadora Álcali, S.A. de C.V.	100.00%	Industria del Álcali, S.A. de C.V.	100.00%
Distribuidora Álcali, S.A. de C.V.	100.00%	Vitro Colombia, S.A.S. <sup>(1)</sup>	100.00%
Vitro Flotado Cubiertas, S.A. de C.V.	100.00%	Vitro Automotriz, S.A. de C.V.	100.00%
Vidrio Plano de México, S.A. de C.V.	100.00%	Vitro Vidrio y Cristal, S.A. de C.V.	100.00%
Vitro Flat Glass, LLC. <sup>(2)</sup>	100.00%	Vitro Flex, S.A. de C.V. <sup>(5)</sup>	100.00%
Vitro Flat Glass Canada, Inc. <sup>(3)</sup>	100.00%		

CONTAINERS

Fabricación de Máquinas, S.A. de C.V.	100.00%	Vitro Packaging de México, S. A. de C.V. <sup>(4)</sup>	100.00%
Vidriera Monterrey, S.A. de C.V.	100.00%	Vidriera Querétaro, S.A. de C.V. <sup>(4)</sup>	100.00%
Vidriera Guadalajara, S.A. de C.V.	100.00%	Vidriera Toluca, S.A. de C.V.	100.00%
Vidriera Los Reyes, S.A. de C.V.	100.00%		

CORPORATE

Vitro FIN, S.A.P.I., de C.V.	100.00%	Vitro Assets Corp. <sup>(2)</sup>	100.00%
Aerovitro, S.A. de C.V.	100.00%		

(1) Company with operations in Colombia.  
(2) Company with operations in USA.  
(3) Company with operations in Canada.  
(4) Companies merged into Vidriera Los Reyes, S.A. de C.V. on September 1, 2016.  
(5) Companies merged into Vitro Automotriz, S.A. de C.V. on October 1, 2016.

The Company's proportion of voting rights in entities on which it has control is similar to its shareholding.

c) Functional and reporting currency

The accompanying consolidated financial statements are presented in Mexican pesos (“Mx. peso”).

The recording and functional currencies of foreign and Mexican transactions are as follows:

Country	Recording and functional currency	Closing exchange rate as of December 31,		Average exchange rate as of December 31,	
		2015	2016	2015	2016
Mexico	Mx. peso	1.0000	1.0000	1.0000	1.0000
USA	U.S. dollar	17.2487	20.6194	15.9809	18.7193
Canada	Canadian dollar	12.4242	15.3736	12.3722	14.1562
Switzerland	Swiss franc	17.2451	20.2934	16.5626	18.9529
Colombia	Colombian peso	0.0055	0.0069	0.0058	0.0062
Brazil	Brazilian real	4.4173	6.3267	4.7736	5.4607

In addition, only for the ease of the user, the consolidated financial statements for the year ended December 31, 2016 were translated into U.S. dollars at the exchange rate of \$20.6194 Mx. pesos per U.S. dollar, determined by Banco de México to be used on December 31, 2016. This arithmetical translation should not be considered as a statement that the amounts expressed in Mx. pesos can be translated into U.S. dollars at that or any other exchange rate.

When these consolidated financial statements and notes thereto refer to Mexican pesos or “\$”, they refer to millions of Mexican pesos, and when they refer to U.S. dollars or “US\$,” they refer to millions of United States of America dollars.

d) Use of estimates and judgments

The accompanying consolidated financial statements have been prepared in conformity with IFRS, which require that management make certain estimates and use certain assumptions that affect the amounts reported in the financial statements and their related disclosures. The Company's management, upon applying professional judgment, considers that estimates made and assumptions used were adequate under the circumstances; however, actual results may differ from such estimates.

The related estimates and assumptions are reviewed continuously. Changes to accounting estimates are recognized in the period in which the estimate is changed if the change affects solely that period, or the current period and future periods if the review affects both current and future periods.

Critical accounting judgments and key uncertainty sources, when applying the estimates performed as of the date of the consolidated financial statements, and that have a significant risk of resulting in an adjustment to the carrying amount of assets and liabilities during the following financial period are as follows:

i. Evaluations to determine the recoverability of accounts receivable

The Company performs an allowance for doubtful accounts, considering its internal control process and factors such as the customers’ financial and operating situation, and the economic conditions of the country. Such allowance is reviewed periodically and the condition of accounts due is determined considering terms and conditions set forth in the agreements.

ii. Evaluations to determine obsolete and slow-moving inventories

The Company performs a reserve for obsolete and/or slow-moving inventories, considering its internal control process and operating and market factors of its products. This reserve is reviewed periodically and is determined considering the turnover and consumption of raw materials, work-in-process and finished goods, which are affected by changes in production process and by changes in the market conditions in which the Company operates.

iii. Evaluations to determine recoverability of deferred tax assets

As part of the tax analysis carried out by the Company, the projected tax result is determined annually based on the judgments and estimates of future transactions to conclude on the likelihood of recoverability of deferred tax assets.

iv. Useful lives of intangible assets and land and buildings and machinery and equipment

Useful lives of intangible assets and of land and buildings and machinery and equipment are used to determine the amortization and depreciation of assets and are defined according to the analysis by internal and external specialists. Useful lives are periodically reviewed, at least once a year, and are based on the current conditions of assets and the estimate of the period during which they will continue to generate economic benefits to the Company. If there are changes in the estimate of useful lives, the carrying amount of assets is affected prospectively, as well as the amortization or depreciation expense, as applicable.

v. Impairment of long-lived assets

The carrying amount of long-lived assets is reviewed for impairment in case that situations or changes in the circumstances indicate that it is not recoverable. If there are impairment indicators, a review is carried out to determine whether the carrying amount exceeds is recoverability value and whether it is impaired. In the impairment evaluation, assets are grouped in the cash generating unit to which they belong. The recoverable amount of the cash generating unit is calculated as the present value of future cash flows that the assets are expected to produce. There will be impairment if the recoverable value is less than the carrying amount.

The Company defines the cash generating units and also estimates the periodicity and cash flows that it should generate. Subsequent changes in grouping cash generating units, or changes in the assumptions underlying the estimate of cash flows or the discount rate, could impact the carrying amounts of the respective assets.

The value-in-use calculations require the Company to determine future cash flows generated by cash generating units and an appropriate discount rate to calculate the present value thereof. The Company uses income cash flows projections using market condition estimates, future pricing determination of its products and volumes of production and sales. In addition, for the purposes of the discount and perpetuity growth rate, the Company uses market risk premium indicators and long-term growth expectations in the market it operates.

The Company estimates a discount rate before taxes for the purposes of the goodwill impairment test, which reflects current evaluations of the time value of money and the specific risks to the asset for which estimates of future cash flows have not been adjusted. The discount rate estimated by the Company is based on the weighted average cost of capital of similar entities. In addition, the discount rate estimated by the Company reflects the return that investors would require if they had to take an investment decision on an equivalent asset in generation of cash flows, time and risk profile.

The Company annually reviews the circumstances that give rise to an impairment loss to determine whether such circumstances have changed or have generated reversal conditions. If affirmative, the recoverable value is calculated and, if applicable, the reversal of the impairment previously recognized.

Internal and external indicators are subject to evaluation annually.

vi. Employee benefits from retirement

The Company uses assumptions to determine the best estimate for these benefits. Assumptions and estimates are established in conjunction with independent actuaries. These assumptions include demographic hypothesis, discount rates and expected increases in remunerations and future permanence, among others. Although the assumptions are deemed appropriate, a change in such assumptions could affect the value of the employee benefit liability and the results of the period in which it occurs.



vii. *Functional currency*

In order to determine the functional currency of the Company, management evaluates the economic environment in which primarily generates and expends cash. Therefore, factors related to sales, costs, funding sources and cash flows generated from operations are considered.

viii. *Contingencies*

Due to their nature, contingencies can solely be solved when they occur, or one or more future events or one or more uncertain events that are not entirely controlled by the Company do not occur. The evaluation of such contingencies significantly requires exercising judgments and estimates on the possible result of such future events. The Company evaluates the possibility of losing lawsuits and contingencies according to estimates carried out by its legal advisors. These estimates are reconsidered periodically.

ix. *Business combinations or assets acquisition*

Vitro's management applies professional judgment to determine if the acquisition of a group of assets constitutes a business combination. Such determination may have a significant impact on how acquired assets and assumed liabilities are accounted for, both at initial recognition and in subsequent periods.

Based on its professional judgment, Vitro's management considers that PPG's Flat Glass Business acquisition qualified as a business combination to be accounted under IFRS 3, "Business combinations", requirements, whereby purchase method is applied, identifying acquired assets and assumed liabilities, measured at fair value.

Similarly, Vitro's management considers that the acquisition of PGW's automotive Original Equipment Manufacturer business described in notes 2 and 26, qualified as a business combination to be accounted under IFRS 3, "Business combinations", requirements.

e) *Classification of costs and expenses*

Costs and expenses presented in the consolidated statements of profit or loss and other comprehensive income were classified according to their function.

4. **SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

The significant accounting policies of the Company are as follows:

a) *Recognition of the effects of inflation*

The Company recognizes the effects of inflation in hyperinflationary economies where there are economic characteristics such as: a) the interest rates, wages and prices are linked to a price index, b) the population does not consider monetary amounts in terms of the local currency, but it does so in terms of a relatively stable foreign currency, c) the accumulated inflation rate of the past three years approximates or exceeds 100%, among others. These features are not restrictive to the analysis made by the Company to determine if the economy in which it operates is considered hyperinflationary.

The Company did not recognize inflationary effects for the years ended December 31, 2015 and 2016, given that economic conditions in which it operates do not represent those of a hyperinflationary economy.

b) *Foreign currency*

The individual financial statements of each of the Company's subsidiaries are prepared in the currency of the primary economic environment in which the subsidiary operates (its functional currency). To consolidate the financial statements of foreign subsidiaries, they are translated from the functional currency into the reporting currency. The financial statements are translated into Mexican pesos (reporting currency), considering the following methodology:

- The transactions where the recording and functional currency is the same, translate their financial statements using the following exchange rates: (i) the closing exchange rate for assets and liabilities and (ii) the weighted average historical exchange rate for revenues, costs and expenses, as they are deemed representative of the existing conditions at the transactions date. Translation adjustments resulting from this process are recorded in other components of comprehensive income (loss). The adjustments related to goodwill and fair value generated from the acquisition of a foreign transaction are deemed assets and liabilities of such transaction and are translated at the exchange rate in effect at yearend.
- Non-monetary items recorded at fair value denominated in foreign currency, are reconverted to the exchange rates in effect at the date the fair value was determined. Non-monetary items calculated in terms of historical cost, in foreign currency, are not reconverted.
- Foreign currency transactions are recorded at the exchange rate in effect at the applicable translation date. Monetary assets and liabilities denominated in foreign currency are stated at the exchange rate in effect at the balance sheet date. Exchange fluctuations are recorded in the consolidated statements of profit or loss and other comprehensive income.

*Net investment hedging in a foreign business*

The Company applies hedge accounting to foreign currency differences arising between the functional currency of the foreign subsidiary and the functional currency of the parent company (Mexican pesos), regardless of whether the net investment is maintained directly or through a sub-parent company.

Until August 30, 2015, the Company had designated some of its foreign currency debt agreements as hedges of some of its foreign investments. As result, and after the total prepayment of contracted debt as of such date (note 2f), and as of December 31, 2015 and 2016, Vitro no longer has debt agreements designated as a hedge of foreign investments.

Foreign currency differences arising from the conversion of a financial liability designated as hedging of a net investment in a foreign business are recognized in other components of comprehensive income, in the effects of conversion caption, to the extent the hedging is effective. To the extent the hedging is not effective such differences are recognized in earnings. Where a portion of the hedge of a net investment is eliminated, the amount corresponding to the translation adjustments is transferred to profit or loss as part of the income or loss from elimination. The hedge accounting resulted in a net charge, net of taxes, directly in the stockholders' equity as of December 31, 2015 for \$343. During the fiscal year ended December 31, 2016, there were no hedging effects to be recorded in the consolidated financial statements.

c) *Cash and cash equivalents*

Cash and cash equivalents consist mainly of bank deposits in checking accounts and short-term investments in securities, highly liquid and easily convertible into cash in a period no longer than three months. Cash is stated at nominal value and cash equivalents are valued at fair value. Any cash equivalent which liquidity is longer than three months is presented on the other current assets line item. Any cash equivalent that cannot be disposed of is classified as restricted cash.

d) *Financial instruments*

Financial assets and liabilities are measured at fair value. The costs of the transaction that are directly attributable to the acquisition or issuance of a financial asset or liability (different from financial assets and liabilities recognized at fair value through profit or loss) are added to or deducted from the fair value of the financial assets and liabilities at their initial recognition. The costs of the transaction directly attributable to the acquisition of financial assets or liabilities that are recognized at fair value through profit or loss are recognized immediately in the income or loss of the year.

Financial assets

All financial assets are recognized and written off at the trade date, where a purchase or sale of a financial asset is under an agreement, which terms require the delivery of the asset within a term that is generally established by the corresponding market, and are initially valued at fair value, plus the transaction costs, except for those financial assets classified as at fair value with changes through profit or loss, which are initially valued at fair value, without including the transaction costs.

Financial assets are classified within the following specific categories: “financial assets valued at fair value through profit or loss,” “financial assets held to maturity,” “loans and accounts receivable,” “financial assets available for sale” and “other”. The classification depends on the nature and purpose of the financial assets and is determined upon initial recognition.

Financial assets and liabilities are offset and the net amount is presented in the statement of financial situation when, and solely when, the Company has the legal right to offset the amounts and intends to either settle on a net basis, or realize the asset and settle the liability simultaneously.

i. *Financial assets valued at fair value through profit or loss*

A financial asset is presented at fair value through profit or loss if it is classified as held for trading purposes or if it is designated as such at its initial recognition. Financial assets are designated at fair value through profit or loss if the Company manages such investments and make purchase and sale decisions based on their fair value and according to the Company’s investment or risk management. In the initial recognition, the costs attributable to the transaction are recognized in profit or loss as incurred. Financial assets at fair value through profit or loss are valued at fair value, and changes in fair value are recognized in profit or loss.

ii. *Financial assets held to maturity*

If the Company intends and is able to hold to maturity debt instruments that are traded in an active market, then such financial assets are classified as held to maturity. Financial assets held to maturity are initially recognized at fair value plus costs directly attributable to the transaction. Subsequent to the initial recognition, the financial assets held to maturity are valued at amortized cost using the effective interest method, less impairment losses.

iii. *Loans and accounts receivable*

Loans and accounts receivable are financial assets with fixed or determined payments, which are not traded in an active market. Such assets are initially recognized at fair value plus costs directly attributable to the transaction. Subsequent to the initial recognition, the loans and accounts receivable are measured at amortized cost using the effective interest method, less impairment losses. Interest income is recognized applying the effective interest rate, except for short-term accounts receivable, in case interest recognition is insignificant.

iv. *Financial assets available for sale*

Financial assets available for sale are non-derivative financial assets designated as held for sale and that are not classified in any of the aforementioned categories, such as equity instruments and certain debt instruments. Such assets are initially recognized at fair value plus the costs directly attributable to the transaction. After the initial recognition, they are valued at fair value and changes other than impairment losses or exchange differences in equity instruments available for sale are recognized in comprehensive income within stockholders’ equity. When an investment is written off or it is impaired, the accumulated loss or gain of the comprehensive income account is transferred to profit or loss.

v. *Other*

Investment in equity instruments that are not traded in any stock exchange are valued mainly using valuation techniques such as analysis of discounted cash flows, option price setting models and comparisons to other transactions and instruments that are substantially equal. In cases where fair value cannot be measured reliably, investments are recorded at cost less impairment losses.

Impairment of financial assets

Financial assets other than the financial assets valued at fair value through profit or loss are subject to impairment tests at the end of each reporting period. Financial assets are deemed impaired when there is objective evidence that, as a consequence of one or more events occurring after the initial recognition of the financial asset, the estimated future cash flows of the financial asset have been affected.

For traded equity instruments classified as held for sale, a significant or extended fall of the fair value of values below their cost is deemed objective impairment evidence.

For all the other financial assets, the objective impairment evidence could include:

- Significant financial difficulties of the issuer or counterpart,
- Default on payment of interest or principal, or
- It is probable that the borrower will go bankrupt or have a financial reorganization.

For certain categories of financial assets, such as trade accounts receivable, the assets that have been subject to impairment tests and have not been impaired individually, are included in the impairment evaluation on a collective basis. Within the objective evidence that an account receivable portfolio could be impaired, the Company’s past experience with respect to collection, an increase in the number of late payments that exceed the average loan period, and the changes observed in the international and local economic conditions correlated to the default on payments, could be included.

For financial assets recorded at amortized cost, the amount of impairment loss recognized is the difference between the carrying amount of the asset and the present value of future collections, discounted at the original effective interest rate of the financial asset. The carrying amount of the financial asset is reduced for the impairment loss for all financial assets, except for trade accounts receivable, where the carrying amount is reduced through an account for allowance doubtful accounts. When a doubtful account is deemed uncollectible, it is eliminated against the allowance. The subsequent recovery of the previously eliminated amounts is converted to credits against the allowance. Changes in the carrying amount of the allowance account are recognized in profit or loss.

When a financial asset deemed held for sale is impaired, the accumulated gains or losses previously recognized in other comprehensive income are reclassified to current earnings. Except for equity instruments held for sale, if in a subsequent period, the amount of impairment loss is decreased and such decrease can be objectively related to an event occurring after the recognition of the impairment, the previously recognized impairment loss is reversed through profit or loss to the extent the carrying amount of the investment at the date the impairment was reversed does not exceed the amortized cost that would result if the impairment had not been recognized.

With respect to equity instruments held for sale, impairment losses previously recognized in profit or loss are not reversed through them. Any increase in the fair value after the recognition of the impairment loss is recognized in other comprehensive income.

Financial liabilities

*Financial liabilities at fair value with changes through profit or loss*

A financial liability at fair value with changes through profit or loss is a financial liability classified as held for trade purposes or is designated as at fair value with changes through profit or loss.

A financial liability is classified as held for trade purposes if:

- It is acquired mainly in order to repurchase it in the near future; or
- It is part of an identified financial instruments portfolio managed jointly, and for which there is evidence of a recent pattern of taking short-term profits; or
- It is a derivative that has not been designated as a hedging instrument or does not meet the conditions to be effective.

A financial liability that is not a financial liability held for trade purposes could be designated as a financial liability at fair value with changes through profit or loss at the initial recognition time if:

- Thereby any inconsistency in the valuation or in the recognition that otherwise would arise from its valuation on different basis is significantly eliminated or reduced; or
- The return from financial liabilities or a group of assets and financial liabilities are managed and assessed based on their fair value, according to an investment or risk management strategy that the entity has documented, and information is internally provided on that group, based on its value; or
- It is part of an agreement that includes one or more embedded derivative instruments, and IAS 39, “Financial Instruments: Recognition and Measurement”, allows that the entire hybrid agreement (asset or liability) is designated as at fair value with changes through profit or loss.

Financial liabilities at fair value with changes through profit or loss are recorded at fair value, recognizing any gain or loss arising from the remeasurements in the consolidated statements of profit or loss and other comprehensive income.

Other financial liabilities

Other financial liabilities, including loans, are initially valued at fair value, net of costs of the transaction, and are subsequently valued at amortized cost using the effective interest method, and interest expenses are recognized on an effective return base.

The effective interest rate method is a method for the calculation of the amortized cost of a financial liability and of the assignment of the financial expense along the period concerned. The effective interest rate is the rate that exactly discounts the estimated cash payments along the expected life of the financial liability (or, where adequate, in a shorter period) which represents the net amount in books of the financial liability at its initial recognition.

Derecognition of financial liabilities

The Company writes off financial liabilities if, and solely if, the obligations are met, cancelled or expired.

e) Inventories

Inventories are valued at the average purchase price or average production cost, provided they do not exceed the net realizable value. Cost of sales is determined applying these averages upon sale.

Net realizable value is the sale value estimated during the regular course of business, less estimated termination costs and sale costs.

The Company uses the absorption cost system to determine the cost of inventories of production-in-progress and finished goods, which includes both direct costs and those indirect costs and expenses related to production processes.

f) Assets available for sale

Long-term assets are classified as available for sale if their carrying amount will be recovered through a sale transaction and not though their continuous use. This condition is deemed met solely when the sale is highly probable and the asset (or group of assets for sale) is available for immediate sale in its current condition. They are presented in the consolidated statements of financial position as short term, according to the realization plans, and they are recorded at the lessor of their carrying amount or fair value less costs of sale.

g) Discontinued operations

A discontinued operation is a Company’s business component that represents a significant business line or a separate operational geographical area that has been sold, is available for sale or has been abandoned, or is a subsidiary acquired exclusively for re-sale. The classification as a discontinued operation takes place upon sale or liquidation, or when the operation meets the criteria for its classification as available for sale, whichever occurs first. When an operation is classified as a discontinued operation, the consolidated statements of comprehensive income and cash flows are restructured as if the operation had been discontinued from the beginning of the comparative period.

h) Investment in associated companies

An associated company is a company in which the Company has significant influence. Significant influence is the power to participate in the definition of financial and operating policies of an entity, but it does not have control or joint control on such policies.

The results, assets and liabilities of the associated company are incorporated in the Company’s consolidated financial statements under the equity method, except when the investment is classified as available for sale, in which case its value is recognized according to subsection g) above. Under the equity method, an investment in an associated company is recognized in the consolidated statements of financial position at cost and is adjusted through the recognition of its comprehensive income or loss in proportion to the Company’s shareholding in such associated company. When the comprehensive loss of an investment in an associated company exceeds the Company’s equity in its capital, the Company discontinues the recognition of such losses. Additional losses are recognized up to the amount of the Company’s obligations and legal commitments for its equity such associated company.

Any excess of acquisition cost of the Company’s equity in an associated company on the net fair value of identifiable assets, liabilities and contingent liabilities of such associated company is recognized as goodwill, which is included at the carrying amount of such investment. Any excess of net fair value of the identifiable assets, liabilities and contingent liabilities on the acquisition cost of an associated company is recognized in current earnings.

i) Lands and buildings, machinery and equipment

Lands, buildings, machinery and equipment held for use in production for rendering services or for administrative purposes are recognized in the consolidated statement of financial position at historical costs, less accumulated depreciation or accumulated impairment losses.

Depreciation is recorded in earnings and is calculated using the straight-line method based on the remaining useful lives of the assets, which are reviewed every year jointly with the residual values, and the effect of any change in the recorded estimate is recognized on a prospective basis. The assets related to finance leases are depreciated in the shorter period between the lease and their useful lives, unless it is reasonably certain that the Company will obtain the ownership at the end of the lease period.

The estimated useful lives for the main classes of fixed assets that correspond to current and comparative periods are as follows:

	Years
Buildings	15 to 50
Machinery and equipment	3 to 30



When components of a building, machinery and/or equipment have different useful lives, they are recorded as separate items (significant components) of buildings, machinery and equipment.

Gains or losses from the sale of a land, building, machinery and equipment item are determined comparing the gain or loss obtained from the sale to the carrying amount of such item; such gain or loss is recognized net within other (income) expenses in the consolidated statements of profit or loss and other comprehensive income.

Investments in process are recorded at cost less any impairment loss recognized. The cost of assets constructed by the own entity include the cost of materials and direct labor, any other cost directly attributable to the process of making to asset be suitable for the use foreseen, as well as the cost for dismantling, removing items, restoring the place where they are located, and the costs for capitalized loans, according to the Company's policy. The depreciation of these assets, as in other properties, commences when the assets are ready for use in the place and conditions necessary to be able to operate in the way intended by the Company's management.

j) **Investment properties**

Investment properties are those held to obtain rents and increase in value (including investment properties in construction for such purposes) and are initially valued at acquisition cost, including the costs incurred in the related transactions. After the initial recognition, investment properties are valued at fair value. The fair value of the investment properties is determined annually through appraisals performed by an expert appraiser, who uses different valuation techniques such as observable markets, amortized costs, among others. Gains or losses arising from changes in the fair value of the investment properties are included in other (income) expenses in the consolidated statements of profit or loss and other comprehensive income in the period in which they arise.

An investment property is eliminated upon disposal or when it is permanently retired from use and no future economic benefits are expected from the disposal. Any gain or loss arising from derecognition of the property (calculated as the difference between net income from disposal and the carrying amount of the asset) is recognized in earnings in the consolidated statements of comprehensive income in the period in which the property is derecognized.

k) **Leases**

Leases are classified as finance leases when the terms of the lease substantially transfer to the lessee all the risks and benefits inherent to the property. All the other leases are classified as operating leases.

Assets under finance leases are recognized as assets at fair value at the beginning of the lease, or at present value of the minimum lease payments, the least. The liability corresponding to the lessor is included in the consolidated statements of financial situation as part of long-term debt.

Lease payments are distributed between the financial costs and the reduction of the lease obligation so as to achieve a constant rate on the remaining balance of the liability. Financial expenses are expensed directly, unless they are directly attributable to qualifying assets, in which case are capitalized in accordance with the Company's policy for costs on loans.

Payments for operating lease rents are expenses using the straight-line method during the lease term, unless another systematic sharing basis results more representative to reflect more adequately the pattern of lease benefits to the user.

The Company does not maintain significant leases acting as a lessor.

l) **Borrowing costs**

The costs for loans directly attributable to the acquisition, construction or production of qualifying assets, which are assets that require a substantial period until they are ready to use, are added to the cost of those assets. Capitalization of costs for loan ceases at the time that the assets are available for use. Exchange rate fluctuations arising from the procurement of funds in foreign currency are capitalized to the extent

that they are deemed adjustment to the interest cost. The income obtained from the temporary investment of specific loans outstanding to be used in qualifying assets, is deducted for costs for loans eligible for capitalization. All other borrowing costs are recognized in earnings in the period they are incurred.

m) **Intangible assets**

*Intangible assets with finite and infinite lives*

Intangible assets that are acquired by the Company, and which have finite useful lives, are recorded at cost less accumulated amortization and accumulated impairment losses; they are mainly included in the cost of software for administrative use. The estimated useful lives and amortization method are reviewed at the end of each year, and the effect of any change in the recorded estimate is recognized prospectively.

Intangible assets with infinite useful lives does not amortize and are annually subject to impairment test.

*Goodwill*

Goodwill arises from a business combination and is recognized as an asset at the date control is acquired (acquisition date). Goodwill is the excess of the consideration transferred on the fair value at the acquisition date of the identifiable assets acquired and liabilities assumed. When the fair value of the identifiable net assets of the acquired exceeds the sum of the consideration transferred, the amount of such excess is recognized in the consolidated statement of comprehensive income as a gain on purchase. Goodwill is not amortized and is subject to annual impairment tests.

For purposes of the evaluation of the impairment, goodwill is assigned to each of the cash generating units for which the Company expects to obtain benefits. If the recoverable amount of the cash-generating unit is less than the amount in books of the unit, the impairment loss is allocated first in order to reduce the amount in books of the goodwill allocated to the unit and then to the other assets of the unit, proportionally, on the basis of the amount in books of each asset in the unit. Impairment loss recognized for the purposes of the goodwill cannot be reversed in a subsequent period.

Upon disposal of a subsidiary, the amount attributable to the goodwill is included in the determination of the profit or loss on the disposal.

n) **Impairment of tangible and intangible assets**

The Company reviews the book values of its tangible and intangible assets to determine if there is any indicator that those assets have suffered any impairment loss. If there is any indicator, the recoverable amount of the asset is calculated in order to determine the extent of the impairment loss. When it is not possible to estimate the recoverable amount of an individual asset, the Company estimates the recoverable amount of the cash generating unit to which such asset belongs. When you can identify a reasonable and consistent basis of distribution, corporate assets are also assigned to the individual cash generating units, or otherwise, are assigned to the smallest group of cash generating units for which a reasonable and sound distribution base can be identified. The intangible assets that have an indefinite useful life are subject to impairment tests at least annually, and whenever there is an indicator that the asset may have been impaired.

The recoverable amount is the higher between the fair value less cost to sell it and the value in use. In assessing value in use, estimated future cash flows are discounted at their present value using a discount rate before taxes that reflects the current market assessment with respect to the time value of money and the specific risks of the asset for which future cash flows estimates have not been adjusted.

If it is estimated that the recoverable amount of an asset (or cash-generating unit) is less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. Impairment losses are recognized in earnings.

When an impairment loss is reversed subsequently, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, in such a way that the increased carrying amount does not exceed the carrying amount that would have been determined if an impairment loss had not been recognized for such asset (or cash-generating unit) in prior years.

o) **Derivative financial instruments and hedging operations**

The Company's activities expose it to a variety of financial risks, including: foreign exchange risk, interest rates and price risk, such as generic goods, mainly that of natural gas.

The Company's policy is to contract derivative financial instruments (“DFI's”) in order to mitigate and cover the exposure to which it is exposed, given its productive and financial transactions. The Company designates these instruments either as fair value hedges, cash flow hedges or hedges of a net investment in a foreign operation.

There is a Risk Committee which is responsible for enforcing risk management policies, as well as for monitoring the proper use of financial instruments contracted by the Company. The Committee is composed by several of the Company's officials. Additionally, to perform this type of transactions an authorization from the Board of Director is required.

The Company recognizes all derivative financial instruments in the statement of financial position at fair value, regardless of the intention of its holding. In the case of hedging derivatives, the accounting treatment depends on whether the hedging is of fair value or cash flow. DFI's negotiations may include considerations agreements, in which case, the resulting amounts are presented on a net basis.

The fair value of financial instruments is determined by recognized market prices and when instruments are not traded in a market; it is determined by technical valuation models recognized in the financial field using inputs such as price, interest rate and exchange rate curves, which are obtained from different sources of reliable information.

When derivatives are contracted in order to cover risks and comply with all the hedge accounting requirements, their designations are documented describing the purpose, features, accounting recognition and how the measurement of effectiveness will be carried out.

The designated hedging derivative recognizes changes in fair value as follows: (1) in fair value, the fluctuations both of the derivative and the hedged item are valued against profit or loss, (2) in cash flows, they are temporarily recognized in comprehensive income and are reclassified to profit or loss when the hedged item affects them, (3) when the hedge is an investment in a foreign subsidiary, the effective portion is recognized in comprehensive income (loss) as part of an adjustment for conversion. The ineffective portion of the change in fair value is recognized in the profit or loss of the period, within the net financial cost if it is a derivative financial instrument and, if it is not, it is recognized in comprehensive income (loss) until the investment is sold or transferred.

Derivative financial instruments, which the Company maintains, have not been designated as a hedge for accounting purposes. The fluctuation in the fair value of these derivative financial instruments is recognized in current earnings within net financial cost.

As detailed in subsection b) herein, the Company applies hedge accounting to foreign currency differences arising between the foreign currency for its foreign transactions and the holding entity's functional currency, regardless of whether the net investment is held directly or through a sub-holding.

p) **Provisions**

Provisions are recognized for current obligations that arise from a past event, that will probably result in the use of economic resources, and that can be reasonably estimated. For the purpose of accounting records, provisions are discounted to present value when the discount effect is material. Provisions are classified as current or non-current according to the estimated time period to meet the obligations that are covered. When the recovery of a third of some or all the economic benefits required to settle a provision is expected, an account receivable is recognized as an asset, if it is virtually certain that the payment will be received and the amount of the account receivable can be valued reliably.

q) **Income tax**

Current taxes and deferred taxes are recognized in earnings, except when they are related to a business combination, or items recognized directly in stockholders’ equity, or in the comprehensive income account.

Current income tax is the tax expected to be paid or received. The income tax payable in the fiscal year is determined according to the legal and tax requirements, applying tax rates enacted or substantially enacted as of the report date, and any adjustment to the tax payable with respect to prior years.

Deferred income tax is recorded using the assets and liabilities method, which compares the accounting and tax values of the Company's assets and liabilities and deferred taxes are recognized with respect to the temporary differences between such values. No deferred taxes are recognized for the following temporary differences: the initial recognition of assets and liabilities in a transaction other than a business acquisition and that does not affect the accounting or tax result, and differences related to investments in subsidiaries and joint ventures to the extent it is probable that they will not be reversed in a foreseeable future. In addition, deferred taxes for taxable temporary differences arising from the initial recognition of goodwill are not recognized. Deferred taxes are calculated using rates that are expected to apply to temporary differences when they are reversed, based on enacted laws or which have been substantially enacted at the reporting date.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax assets and liabilities, and they correspond to the income tax levied by the same tax authority and to the same tax entity, or on different tax entities, but intend to settle the current tax assets and liabilities caused on a net basis or their tax assets and liabilities are simultaneously materialized.

A deferred asset is recognized for tax loss carryforwards, tax credits and deductible temporary differences, to the extent that it is probable that there is taxable income to which they can be applied. Deferred assets are reviewed at the reporting date and are reduced to the extent the realization of the corresponding tax benefit is no longer likely.

r) **Employee benefits**

i. **Defined benefit plans**

*Pension plans*

A defined benefit plan is a benefit plan at the end of a labor relationship different from one of defined contributions. The Company's net obligations with respect to the defined-benefit pension plans are calculated separately for each plan, estimating the amount of future benefit accrued by employees in return for their services in ongoing and past periods; that benefit is discounted to determine its present value, and the costs for the services that have not been recognized and the fair value of the plan assets are deducted. The discount rate is the yield at the reporting date of the government bonds that have maturity dates approximate to the maturities of the Company's obligations which are denominated in the same currency in which benefits are expected to be paid. The calculation is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a benefit for the Company, the recognized asset is limited to the net total of unrecognized past service costs and the present value of the economic benefits available in the form of future refunds from the plan or reductions in future contributions to the plan plus the plan assets. To calculate the present value of the economic benefits, the minimum funding requirements applicable to the Company's plan are considered. An economic benefit is available to the Company if it can be realized during the life of the plan, or upon settlement of the plan obligations.

When the benefits of a plan are improved, the portion of the improved benefits relating to past services by employees is recognized in profit or loss using the straight-line method over the average period until it acquires the right to the benefits. In so far as the right of benefits takes place, the expense is recognized in profit or loss.

The Company recognizes actuarial remeasurements derived from defined benefit plans in the comprehensive income account, in the period in which they occur, and they are never recycled to profit or loss.

*Medical post-employment benefits*

The Company grants medical benefits to retired employees at the end of the employment relationship. The right to access these benefits usually depends on whether the employees have worked up to the retirement age and have completed certain minimum service years. Net periodic cost of these benefits are recognized in profit or loss using the same criteria for those described for pension plans.

- ii. Termination benefits

Termination benefits are recognized as an expense when the Company commitment can be evidenced, without real possibility of reversing, with a detailed formal plan either to terminate employment before the normal retirement date, or else, to provide benefits for termination as a result of an offer that is made to encourage voluntary retirement. The benefits from termination in cases of voluntary retirement are recognized as an expense, solely if the Company has made an offer of voluntary retirement, the offer is likely to be accepted, and the number of acceptances can be estimated reliably. If the benefits are payable no later than 12 months after the reporting period, then they are discounted at present value.
- iii. Short-term benefits

Short-term employee benefit obligations are not discounted and are expensed as services are rendered.

A liability is recognized for the amount expected to be paid under short-term cash bonus plans if the Company has a legal or assumed obligation to pay these amounts as a result of past services provided by the employee and the obligation can be estimated reliably.
- s) Statutory employee profit sharing (“PTU”)

PTU is recognized in the earnings of the fiscal year in which it is incurred and is presented within operating income.
- t) Revenue recognition

Revenues and related costs are recognized in the period in which: i) the risks and rewards are transferred to customers, which generally coincides with the delivery of products to customers in satisfaction of orders; ii) there is no ownership or effective control on the goods sold; iii) revenues and related costs can be measured reliably and iv) the economic benefits to the Company are probable.
- u) Financial income and costs

Financial income includes income interest on invested funds, changes in the fair value of financial assets at fair value through profit or loss, and exchange gains. Interest income is recognized in income as earned, using the effective interest method.

Financing costs include interest expenses on loans, effect of the discount by the passage of time on provisions, exchange losses, changes in the fair value of financial assets at fair value through profit or loss and impairment losses recognized on financial assets. The borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset, are recognized in earnings using the effective interest method.

Exchange gains and losses are reported on a net basis.
- v) Earnings per share

The Company presents information about basic and diluted earnings per share ("EPS") corresponding to its common stock. The basic EPS is calculated by dividing the earning or loss attributable to stockholders that hold Company's common stock by the weighted average outstanding common stock during the period, adjusted for the own shares held. The diluted EPS are calculated by adjusting the earning or loss attributable to stockholders that hold common shares and the weighted average number of outstanding shares, adjusted for the own shares held, for the effect of the dilution potential of all common shares, which include convertible instruments and options on shares granted to employees. During the fiscal years ended December 31, 2015 and 2016, the Company has no dilutive effects.

5. OTHER CURRENT ASSETS AND OTHER SHORT-TERM LIABILITIES

The balances of other current assets as of December 31, 2015 and 2016 are as follows:

	December 31,	
	2015	2016
Sundry debtors	\$ 82	\$ 434
Prepayments	126	134
Prepayment of inventories	128	14
Assets held for sale	21	25
Total other current assets	\$ 357	\$ 607

The balances of other short - term liabilities as of December 31, 2015 and 2016 are as follows:

	December 31,	
	2015	2016
Taxes payable	\$ 402	\$ 856
Sundry creditors	759	853
Contributions payable	293	135
Total other short-term liabilities	\$ 1,454	\$ 1,844

6. TRADE ACCOUNTS RECEIVABLE

Trade accounts receivable consists of the following:

	December 31,	
	2015	2016
Customers	\$ 2,569	\$ 4,435
Less allowance for doubtful accounts and others	(170)	(254)
	\$ 2,399	\$ 4,181



7. INVENTORIES

Inventories consist of the following:

	December 31,	
	2015	2016
Work in process and finished goods	\$ 1,526	\$ 2,319
Raw materials	414	686
Packing material	34	37
Spare parts	135	395
Refractories	1	2
Inventory-in-transit and others	107	215
	\$ 2,217	\$ 3,654

Due to inventory obsolescence and slow movement, as of December 31, 2015 and 2016, inventories are reduced to their net realizable value by \$165 and \$175, respectively; this reserve mainly decreases the finished goods, refractories and raw materials line items.

8. INVESTMENT IN ASSOCIATED COMPANIES

The Company has an investment in Empresas Comegua, S.A. and subsidiaries (“Comegua”), an entity engaged in the production of glass containers, and whose operations are held primarily in Guatemala, Nicaragua and Costa Rica. The amount of this investment as of December 31, 2015 and 2016 is \$1,409 and \$1,761, respectively; furthermore, the shareholding of the Company is 49.72% at both dates.

The condensed statements of financial position and condensed statements of profit or loss of Comegua as of December 31, 2015 and 2016 and for the years then ended are:

Condensed statements of financial position:	December 31,	
	2015	2016
Assets		
Current assets	\$ 1,613	\$ 1,959
Long-term assets	3,217	3,813
Total assets	\$ 4,830	\$ 5,772
Liabilities		
Current liabilities	\$ 872	\$ 1,085
Non-current liabilities	1,124	1,145
Total liabilities	\$ 1,996	\$ 2,230

Condensed statements of profit or loss:	Year ended December 31,	
	2015	2016
Net sales	\$ 3,394	\$ 3,626
Costs and expenses	3,072	3,367
Income taxes	93	54
Net and comprehensive income	\$ 229	\$ 205
Company's equity	\$ 114	\$ 102

Financial information for the years ended December 31, 2015 and 2016 are as follows:

	Year ended December 31,	
	2015	2016
EBIT	\$ 393	\$ 335
Non-cash items	251	383
EBITDA	\$ 644	\$ 718
Current ratio	1.85	1.79
Debt ratio	1.49	1.33
EBITDA to interest expense ratio	8.14	9.85
Debt to total liabilities plus total equity ratio	0.22	0.18
Debt to EBITDA ratio	1.49	1.33

9. LAND AND BUILDINGS, MACHINERY AND EQUIPMENT AND INVESTMENTS IN PROCESS

Below is a summary of the composition of these items:

	December 31,	
	2015	2016
Land	\$ 2,670	\$ 3,076
Buildings	6,653	8,206
Accumulated depreciation	(4,536)	(4,649)
	4,787	6,633
Machinery and equipment	16,676	22,009
Accumulated depreciation	(13,011)	(12,911)
	3,665	9,098
Investments in process	929	1,617
	\$ 9,381	\$ 17,348

Cost or valuation	Land	Buildings	Machinery and equipment	Investments in process	Final balance
Balance as of January 1, 2015	\$ 2,269	\$ 10,925	\$ 29,994	\$ 1,044	\$ 44,232
Additions	609	79	425	467	1,580
Disposals	—	(11)	(506)	—	(517)
Capitalized borrowing cost	—	—	—	3	3
Discontinued operations (note 20)	(207)	(4,328)	(13,217)	(586)	(18,338)
Translation adjustment	(1)	(12)	(20)	1	(32)
Balance as of December 31, 2015	2,670	6,653	16,676	929	26,928
Additions	58	134	1,409	572	2,173
Disposals	—	(106)	(1,093)	—	(1,199)
Business acquisition (note 11)	322	1,414	4,685	89	6,510
Translation adjustment	26	111	332	27	496
<b>Balance as of December 31, 2016</b>	<b>\$ 3,076</b>	<b>\$ 8,206</b>	<b>\$ 22,009</b>	<b>\$ 1,617</b>	<b>\$ 34,908</b>

- a) Capitalized borrowing cost
- During fiscal year 2015, the Company capitalized interest on loans as a supplement to the cost of machinery and equipment of \$3, at a capitalization interest rate of 7.79%, which correspond to the corporate average rate considered as generic loans. The Company did not capitalize any amount corresponding to exchange fluctuations as an adjustment to interest rates during the fiscal year ended December 31, 2015. During 2016, the Company did not capitalize any interest on loans.

- b) Transactions that did not require cash flows
- During 2015 and 2016, no investments were contracted as finance leases, nor other investments in fixed assets that did not require a cash disbursement.

- c) Impairment
- During fiscal year 2015, the Company reviewed the recoverable amount of its productive fixed assets throughout the analysis of the value in use of its cash generating units. Such analysis resulted in the recognition of a reversal of the impairment recognized over certain assets in Flat Glass segment for \$56. The discount rates used in the calculation of the value in use of impaired units of the Flat Glass segment were 8.64% and 9.56% for 2015.

The Company's management made the decision to impair certain permanent idle assets. The amount of impaired assets in the Glass Containers segment was \$61 and corresponds to assets related to production processes.

During 2016, the Company's management made the decision to impair certain assets due to a partial loss in its carrying amount, based on appraisals performed by independent expert. The amount of impaired assets in the Flat Glass segment was \$136 and corresponds to assets related to production processes.

Impairment losses were recognized in the other expenses, net line item for the years ended December 31, 2015 and 2016.

10. INVESTMENT PROPERTIES

As of December 31, 2015 and 2016, the investment properties amount to \$355 and \$359, respectively; such assets are mainly composed of lands and buildings. The fair value of investment properties was calculated based on Level 2 of the fair value hierarchy (note 17iv).

During the fiscal years ended December 31, 2015 and 2016, there were no significant changes in the fair value of investment properties.

11. BUSINESS ACQUISITION

**PPG's Flat Glass Business**  
On July 20, 2016, Vitro entered into a sale and purchase agreement with PPG, the latter engaging to sell its Flat Glass Business in favor of Vitro and/or its subsidiaries. This acquisition concluded successfully on October 1, 2016 ("acquisition date"), incorporating four manufacturing plants with five furnaces in the United States, a research and development center of flat glass, and four distribution and fabrication facilities in Canada. The Flat Glass Business acquisition amounted to \$14,311.

Fair value of acquired assets and assumed liabilities, as a result of this business acquisition, are as follows:

Trade accounts receivable, net	\$ 1,579
Inventories	1,548
Property, plant and equipment, net	6,510
Intangibles	5,846
Trade accounts payable	(1,110)
Debt	(317)
Deferred income taxes	(1)
Employee benefits	(659)
Other items, net	14
Goodwill	901
Consideration paid	\$ 14,311

To date, the management of the Company, supported by independent experts, has performed the purchase price allocation to the fair value of the net assets acquired, as well as the goodwill calculation; even though IFRS allows to modify the initially allocated values for a twelve-month period from the acquisition date, the management considers that any potential modifications would be not material.

As of December 31, 2016, the Company maintains an account receivable with PPG of \$212, which derives from working capital adjustments as stipulated in the sale and purchase agreement.

As a result of the transaction, goodwill amounts to \$901 as of December 31, 2016, which was allocated to Flat Glass segment. Contributing factors on goodwill recognition include obtaining operational synergies among productive plants, exchange of best practices, and shared use of new technologies, among others. Goodwill associated to this business combination is deductible for income taxes purposes.

Contributing revenues, by the net acquired assets of the Flat Glass Business included in the consolidated statement of profit and loss from the acquisition date to December 31, 2016, amounted to \$3,110, and a net income of \$127. If the acquisition had happened on January 1, 2016, revenues would have increased by \$10,745, and net income of the year by \$653. Information in regards revenues and net income of the year of the acquired business does not includes any cost savings or other effects by its integration in Vitro’s operations. Consequently, those figures are not necessarily indicative of the results as if the acquisition had happened on January 1, 2016, or those that may occur in the future.

12. GOODWILL

Goodwill balance as of December 31, 2016 consist of the following:

	2016
Balance as of January 1,	\$ –
Business acquisition (note 11)	901
Translation adjustment	62
Balance as of December 31,	\$ 963

Goodwill has arisen as a result of the PPG’s Flat Glass Business acquisition (note 11), which segment information is presented in the Flat Glass segment (note 25). Recoverable amount of goodwill is determined based on its value in use, which uses projected cash flows based on a financial budget authorized and approved by the Board of Directors; such budget covers a five-year period. Value in use was determined using a post-tax discount rate with perpetuity of 8.93%.

13. INTANGIBLES AND OTHER ASSETS

a) Intangible balances as of December 31, 2015 and 2016, consist of the following:

	December 31,		
	2015		2016
Software	\$ 51	\$	57
Trademarks and intellectual property	–		2,207
Customer relationships	–		3,765
	\$ 51	\$	6,029

Cost or valuation	Software	Trademarks and intellectual property	Customer relationships	Total
Balance as of January 1, 2015	\$ 727	\$ –	\$ –	\$ 727
Discontinued operation (note 20)	(66)	–	–	(66)
Balance as of December 31, 2015	661	–	–	661
Business acquisition (note 11)	24	2,232	3,590	5,846
Translation adjustment	–	–	225	225
Balance as of December 31, 2016	\$ 685	\$ 2,232	\$ 3,815	\$ 6,732

Accumulated amortization	Software	Trademarks and intellectual property	Customer relationships	Total
Balance as of January 1, 2015	\$ 590	\$ –	\$ –	\$ 590
Amortization of the year	42	–	–	42
Discontinued operation (note 20)	(22)	–	–	(22)
Balance as of December 31, 2015	610	–	–	610
Amortization of the year	18	25	50	93
Balance as of December 31, 2016	\$ 628	\$ 25	\$ 50	\$ 703

Amortization of intangible assets was calculated using useful lives of 15 and 20 years for trademarks and intellectual property, and customer relationships, respectively.

b) Other long term assets as of December 31, 2015 and 2016 are as follows:

	December 31,	
	2015	2016
Advances to suppliers of fixed assets	\$ 147	\$ 362
Other	58	77
	\$ 205	\$ 439



14. LONG-TERM DEBT

Long-term debt consists of the following:

	December 31,	
	2015	2016
I. Foreign subsidiaries (payable in U.S. dollars):		
Finance lease with a fixed interest rate of 7.48%, maturing at different dates through 2025.	\$ —	\$ 329
Unsecured debt and variable interest rate of LIBOR + 4.15% maturing at different dates through 2023 (notes 2b y 11).	—	10,310
II. Vitro and Mexican Subsidiaries (payable in U.S. dollars):		
Finance lease with a fixed interest rate of 10.7494%, maturing at different dates through 2016.	11	—
III. Vitro and Mexican Subsidiaries (payable in Mexican pesos):		
Sundry leases with different interest rates, maturing at different dates through 2016.	2	—
Debt issuance costs	—	(54)
Total long-term debt	13	10,585
Less short-term maturities	13	30
Long-term debt, excluding current maturities	\$ —	\$ 10,555

Debt prepayment

On May 12, 2015, the Company signed an agreement with O-I accepting a bid to sell its food and beverages glass containers business. The transaction is valued, cash and debt free, at US\$2,150, and included the sale are five food and beverages glass container manufacturing plants in Mexico, one plant in Bolivia, and the distribution of such products in the USA, excluding the cosmetic business, the machinery and equipment business, the chemical business, and Vitro’s participation in Comegua. This agreement was approved by Vitro’s stockholders at an Ordinary General Stockholders’ Meeting held on July 7, 2015.

On September 1, 2015, the food and beverages glass container transaction concluded successfully. The transaction was approved by the governing bodies of both companies and by the relevant regulatory authorities in Mexico and the USA. This completes the transfer of the food and beverages glass containers business from Vitro to O-I. Part of the proceeds of the transaction were used to prepay practically all the Company’s debt, including accrued interest.

Signing of credit agreement

On September 23, 2016, Vitro entered into a credit agreement with Banco Inbursa, S.A., Institución de Banca Múltiple, Grupo Financiero Inbursa for the amount of US\$500 which accrue interest at LIBOR + 4.15%, maturing on 2023. These resources were used for the payment of part of the purchase price of PPG’s Flat Glass Business (note 11).

15. ACCRUED EXPENSES AND PROVISIONS

As December 31, 2015 and 2016, accrued expenses and provisions were as follows:

	December 31,	
	2015	2016
Wages and benefits payable	\$ 155	\$ 402
Services and other accounts payable	95	236
Other expenses payable	791	800
	\$ 1,041	\$ 1,438

16. EMPLOYEE BENEFITS

Employee benefits recognized in consolidated statements of financial position, by country, are as follows:

	December 31,	
	2015	2016
Mexico	\$ (431)	\$ (1,279)
USA	—	536
Canada	—	(25)
Other	3	3
Net projected assets	\$ (428)	\$ (765)

A description of types of post-employment benefits granted by the Company are as follows:

Defined benefits plan

The Company has a defined benefits pension plan covering Mexican staff which consists of a single payment or a monthly pension, calculated based on the sum of a basic pension, an additional factor by seniority and an additional factor for income equal to or less than the maximum limit used for the Mexican Social Security Institute.

The Company’s plan in Mexico also covers seniority premiums which consist of a lump sum payment of 12 day’s wage for each year worked, calculated using the most recent salary, not to exceed twice the legal minimum wage established by law. The related liability and annual cost of such benefits are calculated with the assistance of an independent actuary on the basis of formulas defined in the plans using the projected unit credit method.

Additionally, in the USA and Canada, the Company grants retirement plans to key personnel, as well as a post-employment medical benefits plan, mainly.

Employee benefits retirement plans valuation is based on service years, current age, and estimated remuneration at retirement date. The main subsidiaries of the Company had constituted and funded irrevocable trusts designated to retirement benefit payments. The Company is not exposed to unusual risks related to the plan assets.

Financial information related to employee benefits is as follows:

	December 31,	
	2015	2016
<b>Net projected (assets) liability for:</b>		
Pension plans	\$ (428)	\$ (952)
Post-employment medical benefits	–	187
Total net projected assets	\$ (428)	\$ (765)
<b>Amount recognized in profit and loss for:</b>		
Pension plans	\$ 93	\$ 46
Post-employment medical benefits	–	4
Total recognized in profit and loss	\$ 93	\$ 50
<b>Amount recognized in comprehensive income for:</b>		
Pension plans	\$ (600)	\$ 689
Post-employment medical benefits	–	16
Total recognized in comprehensive income	\$ (600)	\$ 705

The present values for defined benefit obligations, as well for the assigned plan assets to such obligations are as follows:

	Mexico		USA		Canada		Other	Total		
December 31, 2015:										
Defined benefit obligations	\$	3,942	\$	—	\$	—	\$	3	\$	3,945
Plan assets		(4,373)		—		—		—		(4,373)
Net projected (assets) liability	\$	(431)	\$	—	\$	—	\$	3	\$	(428)
December 31, 2016:										
Defined benefit obligations	\$	3,858	\$	2,379	\$	130	\$	3	\$	6,370
Plan assets		(5,137)		(1,843)		(155)		—		(7,135)
Net projected (assets) liability	\$	(1,279)	\$	536	\$	(25)	\$	3	\$	(765)

Movements in defined benefit obligations during the year are as follows:

	Year ended December 31,	
	2015	2016
Defined benefit obligations as of January 1,	\$ 4,327	\$ 3,945
Discontinued operations (note 20)	(601)	–
Business acquisition (note 11)	–	2,530
Service cost	51	76
Interest cost	250	274
Actuarial remeasurements	283	(187)
Benefits paid	(380)	(402)
Translation adjustment	–	137
Other	15	(3)
Defined benefit obligations as of December 31,	\$ 3,945	\$ 6,370

Changes in the fair value of the plan assets are as follows:

	Year ended December 31,	
	2015	2016
Fair value of the plan assets as of January 1,	\$ 3,438	\$ 4,373
Discontinued operations (note 20)	(168)	–
Business acquisition (note 11)	–	1,871
Expected yield	207	300
Actuarial remeasurements	882	518
Company (reimbursements) contributions	14	(40)
Benefits paid	–	(3)
Translation adjustment	–	116
Fair value of the plan assets as of December 31,	\$ 4,373	\$ 7,135

As of December 31, 2015 and 2016, the main actuarial hypotheses used were as follows:

	December 31,	
	2015	2016
Discount rate		
Mexico	7.00%	7.50%
USA	–	4.13%
Canada	–	3.96%
Salary increase rate		
Mexico	4.00%	4.50%
USA	–	2.50%
Canada	–	3.00%

The average duration of defined benefit obligations is approximately 10 years.

The following table shows future cash flows for benefits expected to be paid in the following ten years:

Payments expected in the years:	Amount
2017	\$ 769
2018	414
2019	403
2020	408
2021	416
2022 to 2026	2,070
	\$ 4,480

These amounts are based on current data and reflect future services expected, as the case may be. Benefit payments are based on the assumptions that inactive participants retire at 65 years old, and other actuarial hypothesis, that they do it along a 10-year period.

The categories of the plan assets as of December 31, 2015 and 2016 are as follows:

	Actual yield rate		Fair value of plan assets	
	2015	2016	2015	2016
Equity instruments	43.92%	25.67%	\$ 2,253	\$ 3,967
Debt instruments	13.21%	10.08%	2,120	3,168
			\$ 4,373	\$ 7,135

As of December 31, 2015 and 2016, plan assets include 41,987,287 and 50,572,999 Vitro’s shares, respectively, whose fair values amount to \$2,253 and \$3,259, respectively. As of December 31, 2016, plan assets also includes accounts receivables with PPG for \$850, which are classified as debt instruments. The Company is not exposed to unusual risks related to the plan assets.

The determination of the defined benefits obligation is carried out using actuarial hypotheses such as discount rates and wage increases. The sensitivity analysis shown below was developed based on the reasonableness of possible changes with respect to the actuarial hypotheses as of December 31, 2016, maintaining the other used hypotheses constant, however, it may not represent actual changes in defined benefit obligations since actuarial assumptions are correlated with each other and are unlikely to change in isolation.

The amounts included in the following table represent increase or (decrease) in the net projected liability, as the case may be.

	Liability
Increase in discount rate of 0.50%	\$ (397)
Decrease in discount rate of 0.50%	442

17. FINANCIAL INSTRUMENTS

The Company has identified the following financial instruments:

	December 31,	
	2015	2016
Financial assets		
Cash and cash equivalents	\$ 7,137	\$ 4,958
Accounts receivable and other financial assets	2,717	4,889
Financial liabilities		
Measured at amortized cost	7,456	19,734
Derivative financial instruments	132	–

The Company is exposed to market risks (interest rate risk and foreign exchange risk), credit risk and liquidity risk, which are managed in a centralized manner. The Board of Directors establishes and monitors the policies and procedures to measure and manage these risks, which are described below.

i. **Market risk**  
Market risk is the risk of changes in market prices, such as exchange rates, interest rates, commodities and equity instruments. The objective of market risk management is to manage and control exposures to market risks within acceptable parameters, at the same time that yields are optimized.

*Interest rate risk*  
As of December 31, 2016, the Company had assumed debt obligations which accrued interest primarily at a variable rate based on LIBOR. Interest rate risk maintained by the Company is considered as low, since 97% of total debt is subject to interest rates referenced to markets historically with low or no volatility, furthermore, is denominated in U.S. dollars in a business environment in the same currency, without any exchange risk.

*Sensitivity analysis to interest rate risk*  
The Company carried out a sensitivity analysis putting into consideration an increase or decrease by 0.5% in the LIBOR rate value, and its effects over the results for the year ended December 31, 2016. The percentage used to analyze interest risk sensitivity is the scenario that represent management’s assessment on the reasonableness of potential deviations in the reference rate, being a market rate with low or no volatility. As a result, the effects of a potential increase or decrease in interest rate would have had an impact in profit or loss for \$13 as an expense or income, respectively.

*Foreign exchange risk applicable to foreign subsidiaries*  
Vitro’s foreign subsidiaries maintain its assets and liabilities, and carry out their activities mainly in U.S. dollars, in a market and a business environment in the same currency, thus the Company’s management considers that the exposure to exchange rate fluctuations for these subsidiaries is almost null. Additionally, the Company considers that the assets and liabilities denominated in other foreign currencies other than U.S. dollar are not material.

*Foreign exchange risk applicable to Mexican subsidiaries*  
Vitro’s Mexican subsidiaries carry out their activities and maintain balances in foreign currencies, which expose them to exchange rate fluctuations. Such exchange risk exposure may arise from changes in economic conditions, monetary or fiscal policies, global market’s liquidity, foreign or local political events, among others.



As mentioned in note 14, debt maintained by the Company is denominated in U.S. dollars; however, almost all of it is contracted by Vitro's subsidiaries abroad. The exchange fluctuation from debt contracted abroad and the rest of the investment in such subsidiaries are recorded directly in stockholders' equity as translation adjustments.

The financial assets and liabilities denominated in millions of U.S. dollars as of December 31, 2015 and 2016 are as follows:

	December 31,			
	2015		<b>2016</b>	
Current assets	US\$	425	US\$	348
Non-current assets		–		1
Current liabilities		113		202
Non-current liabilities		2		515
Net (long) short net position	US\$	(310)	US\$	368

As of December 31, 2015 and 2016, the Company considers the assets and liabilities denominated in other foreign currencies other than U.S. dollar are not material.

The exchange rates of the Mexican peso with respect to the U.S. dollar, used to prepare these consolidated financial statements, were as follows:

	U.S. dollar	
December 31, 2015	\$	17.2487
December 31, 2016		20.6194

As of March 14, 2017, date of issuance of the consolidated financial statements, the exchange rate of the Mexican peso with respect to the U.S. dollar was \$19.5803.

*Sensitivity analysis to foreign exchange risk*

The sensitivity analysis carried out by the Company considers a strengthening or weakening by 1% of the U.S. dollar against the Mexican peso and their effects on the results of the fiscal year 2016. The percentage used to analyze the sensitivity to foreign exchange risk is the scenario that represents the Management's evaluation of the fairness of possible variations in the currency exchange rate. As a result of the analysis, the effect of possible strengthening or weakening of the U.S. dollar against the Mexican peso would have had an impact on profit or loss for \$29 as income or expense, respectively.

ii. Credit risk

Credit risk refers to the risk that a customer or counterpart breaches its contractual obligations resulting in financial loss to the Company and arises mainly from trade accounts receivable and investments in the Company's securities.

*Trade accounts receivable and other accounts receivable*

The Company continuously performs credit evaluations to its clients and adjusts the limits of credit based on the credit history and current creditworthiness. Also, it monitors the collections and payments from customers, and has an allowance for doubtful accounts based on historical experience and on some specific aspect that has been identified. While these allowances for doubtful accounts have historically been within the Company's expectations and within the established allowance, there is no guarantee that it will continue

to have the same level of allowances for doubtful accounts that it has had in the past. An important variation in the experience of the Company's allowances for doubtful accounts could have a significant impact on the consolidated results of operations and therefore on the consolidated financial position.

The Company's exposure to credit risk is affected mainly by the individual characteristics of each customer. However, the Company's management also believes the demographics of its customer base, which includes the risk of non-compliance of the industry and country in which customers operate, as these factors can influence the credit risk, particularly in deteriorated economic circumstances.

As of December 31, 2016, the maximum exposure to credit risk is \$4,181. In addition, the Company has guarantees on certain balances of trade accounts receivable whose performance does not fully meet Management's expectations.

The Company has no concentration credit risk, as consolidated sales to a single customer were not superior to 10% with respect to total sales.

Below is the classification of trade accounts receivable overdue and impaired, according to their age at the date of the report:

Balance	December 31, 2015		<b>December 31, 2016</b>	
	Gross	Impaired	Gross	Impaired
0 to 90 days	\$ 375	\$ 30	\$ 635	\$ –
Over 90 days	75	75	204	192
	\$ 450	\$ 105	\$ 839	\$ 192

iii. Liquidity risk

Liquidity risk represents the possibility that the Company has difficulties to comply with its obligations associated with its financial liabilities that are settled by delivering cash or another financial asset.

The Company's approach to manage its liquidity risk is to ensure, to the extent possible, always having enough liquidity to meet its obligations when they fall due, without affecting the performance of the business or damage the image and reputation of Vitro.

The Company's Board of Directors is responsible for establishing an appropriate framework of liquidity risk management according to the Company's needs. The Company manages its liquidity risk by maintaining bank reserves and through a constant monitoring of cash flows.

In previous years, the Company's main source of liquidity has been predominantly cash generated from operating activities in each one of the business units and sale of certain assets. In addition, the Company has designated certain assets as available for sale, which also support the reduction of this risk.

Following are the contractual maturities of the debt as of December 31, 2016 and the related interest:

	Less than 1 year	1 to 3 years	3 to 5 years
Maturities at fixed interest rates			
In U.S. dollars	\$ 66	\$ 199	\$ 276
Maturities at variable interest rates			
In U.S. dollars	482	3,462	8,907
<b>Total financial liabilities</b>	<b>\$ 548</b>	<b>\$ 3,661</b>	<b>\$ 9,183</b>

The amount shown in the table above were calculated according to the following procedure: a) repayments of principal in foreign currency were translated into Mexican pesos at the exchange rate in effect at the reporting date; and b) interest payments were calculated using the interest rate in effect at the same date and were translated into Mexican pesos using the exchange rate referred to above, as applicable.

As of December 31, 2016, the Company has available cash and cash equivalents for \$4,958, and has access to unused working capital credit line for approximately US\$30.

iv. Fair value of financial instruments

The fair value of financial instruments that are presented below has been determined by the Company using the information available in the market or other valuation techniques which require judgment to develop and interpret the estimates of fair values. It also uses assumptions that are based on market conditions existing at each of the balance sheet dates. Consequently, the estimated amounts presented are not necessarily indicative of the amounts that the Company could realize in a current market exchange.

The levels that cover 1 to 3, based on the degree to which the financial instruments fair value is observed, are:

- Level 1

are those derived from quoted prices (not adjusted) in active markets for identical assets or liabilities;
- Level 2

are those derived from indicators other than quoted prices included within Level 1, but which include indicators that are observable for an asset or liability, either directly to prices quoted or indirectly; i.e. derived from these prices; and
- Level 3

are those derived from valuation techniques that include indicators for assets and liabilities, which are not based on observable market information (non-observable indicators).

The Company's amounts of cash and cash equivalents, as well as accounts receivable and payable to third parties and related parties, and the current portion of bank loans and long-term debt approach their fair value, as they have short term maturities. The Company's long-term debt is recorded at amortized cost and consists of debt that bears interest at fixed and variable rates which are related to market indicators. To obtain and disclose the fair value of long-term debt, different sources and methodologies are used such as: market quotation prices or quotations of agents for similar instruments; other valuation techniques for the cases of those liabilities that have no price in the market and is not feasible to find quotes of agents for similar instruments.

Below are the fair values of the debt, together with the carrying amount that are shown in the consolidated statement of financial position:

	December 31, 2015		December 31, 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
Debt (recorded at amortized cost):				
Debt and bank loans	\$ 15	\$ 15	\$ 10,585	\$ 10,585

The debt assumed by the Company, presented in the previous table, occurred at the end of fiscal year 2016, and therefore it is new long-term debt, reason why the Company's management considers that its fair value as of December 31, 2016 is similar to its carrying amount. During the fiscal years ended December 31, 2015 and 2016, there were no transfers between Level 1 and 2 inputs.

v. Other market price risks

In the ordinary course of business, the Company has historically contracted swaps and other derivative instruments in order to mitigate and to cover its exposure to fluctuations in the price of natural gas. The percentage of covered estimated fuel consumption has varied from 10% to 100%. The percentage of consumption covered and covered prices constantly change according to the conditions of the market based on the Company's needs and to the use of alternative fuels in their production processes.

DFI's that the Company maintained placed during the presented fiscal years were swaps, which were acquired by the need to economically cover the fluctuation in the price of natural gas that the Company's plants use. These DFI's were not designated as a hedge for accounting purposes; therefore, fluctuations in fair value are recognized in current earnings within net financial cost.

The following table shows the active positions and their characteristics for the years ended December 31, 2015 and 2016:

Type of Instrument	Type of Underlying	Annual Notional in MMBTUs	Average Price	Initial Date	Maturity Date
Swap	Natural gas	9,600,000	US\$ 3.89	01–01–15	12–31–15
Swap	Natural gas	5,400,000	US\$ 3.91	01–01–16	12–31–16

The effects of the aforementioned DFI's in profit and loss of fiscal years ended December 31, 2015 and 2016 are described in note 23.

18. COMMITMENTS

The Company entered into various operating lease agreements relating mainly to the lease of warehouses and equipment which represented charges to the profit or loss of 2015 and 2016 for \$230 and \$257, respectively. Certain lease agreements have purchase and/or renewal options at market value at the end of their term, which exercise is not certain at the reporting date.

The estimated future obligations derived from these agreements are as follows:

	Amount
2017	\$ 51
2018	21
2019	11
2020	9
2021	8
2022 and thereafter	44

Power purchase

In October 2000, some of the Vitro subsidiaries with plants around the states of Nuevo León and Estado de México entered into a power-purchase agreement for 15 years, for approximately 45 Megawatts of electricity and 1.3 million tons of water steam per year, with Tractebel Energía de Monterrey, S. de R.L. de C.V. whereby the supply started in April 2003.

Likewise, in August 2015, some of the Vitro subsidiaries, with plants around Monterrey, and Estado de México, entered into a power-purchase agreement for 15 years with the same counterparty, whose supply begins in February 2018, which could be terminated by either party once elapsed half of its validity. This agreement contains power purchase obligations for approximately 69 Megawatts of electricity and 1.3 million tons of water steam per year, and is subject to certain conditions established in the covenant.

Once the agreement´s has entered into force, also are Vitro’s operations within Wholesale Power Market in Mexico; thus, Vitro could, if it suits its’ interests, place on sale in such market totally or partially any amount of power associated with this agreement.

19. CAPITAL AND RESERVES

Capital management

The Company's objective on managing its capital structure is to safeguard its ability to continue as a going concern, and at the same time maximize the return to its stockholders through a proper balance in their funding sources. In order to maintain this structure, the Company carries out various actions such as: efficiently managing working capital, adjusting the dividends paid to stockholders according to free cash flows generated, cancelling and/or issuing new shares and/or debt, or the investment or disinvestment in assets.

The Company, through the Board of Directors, permanently assesses the cost and risks associated with its capital structure. This assessment is primarily based on the proportions of debt, debt to EBITDA of the past 12 months, and interest coverage. The proportion of debt represents the debt ratio to total assets; the EBITDA is calculated based on the income before other income and expenses and adding the virtual items reflected in the statement of comprehensive income, within the cost of sales and operating expenses, mainly depreciations, amortizations and the seniority premium and pension plan reserves. Lastly, the interest coverage is calculated by dividing the EBITDA by the interest expense of the last twelve months interest expense of the analyzed period. Vitro has a long-term goal of maintaining debt financial ratio within a 1.5 and 2.0 times span for indebtedness ratio, less than 3 times for debt to EBITDA, and greater than 5 times for interest coverage. As of December 31, 2016, the results of the calculation of each one of the aforementioned financial ratios were of 0.23 for indebtedness ratio, 2.0 times for debt to EBITDA, and 22.91 times for interest coverage.

Common stock structure

- a) As of December 31, 2015 and 2016, the Company's capital stock amounts to 483,571,429 common shares, fully subscribed and paid, and without par value.
- b) Retained earnings include the statutory legal reserve. The General Corporate Law requires that at least 5% of net income of the year be transferred to the legal reserve until the reserve equals 20% of capital stock at par value (historical pesos). The legal reserve may be capitalized but may not be distributed unless the entity is dissolved. The legal reserve must be replenished if it is reduced for any reason.

At an Ordinary General Stockholders’ Meeting held on April 30, 2015, the application to accumulated results for \$541, arising from additional paid in capital, was approved.

- c) Stockholders’ equity, except for restated paid-in capital and tax retained earnings will be subject to income tax payable by the Company at the rate in effect upon distribution. Any tax paid on such distribution may be credited against annual and estimated income tax of the year in which the tax on dividends is paid and the following two fiscal years.

Balances of the controlling interests in the tax accounts of the stockholders' equity corresponding to the capital contribution account and the net taxable income account amounted to \$46,812 and \$20,084 as of December 31, 2015, and \$48,385 and \$20,169 as of December 31, 2016, respectively.

- d) At an Ordinary General Stockholders’ Meeting held on September 18, 2015, the stockholders agreed to declare and pay dividends at a rate of US\$1.5542 per share. Likewise, at an Ordinary General Stockholders’ Meeting held on April 11, 2016, the stockholders agreed to declare and pay dividends at a rate of US\$0.0455 per share.

- e) Other components of comprehensive income

Cumulative translation adjustments

The movement of the period is recorded when translating the financial statements from the functional currency to the reporting currency. During the period 2015, the Company recycled to profit or loss the cumulative translation adjustment balance recognized in stockholder's equity, attributable to the discontinued operations of the sale of the food and beverage containers business (notes 2f and 20). During 2016, there were no other extraordinary movements affecting the cumulative balance of the translation adjustment recognized within the stockholders’ equity.

Actuarial remeasurements

Actuarial remeasurements are recognized as other components of comprehensive income. During the presented periods, the actuarial remeasurements correspond solely to variations in actuarial assumptions for both the labor liability and the plan assets, and are presented net of income taxes.

Following is an analysis of the movements of the other comprehensive income accounts of the controlling interests:

	Cumulative translation adjustments	Actuarial remeasurements	Total other comprehensive income
Balance as of January 1, 2015	\$ 213	\$ (540)	\$ (327)
Discontinued operations (note 20)	(88)	12	(76)
Comprehensive income movement	59	502	561
Balance as of December 31, 2015	184	(26)	158
Comprehensive income movement	1,019	583	1,602
<b>Balance as of December 31, 2016</b>	<b>\$ 1,203</b>	<b>\$ 557</b>	<b>\$ 1,760</b>

- f) Non-controlling interest is as follows:

	December 31, 2015	2016
Capital stock	\$ 396	\$ 12
Additional paid-in capital	(115)	—
Cumulative translation adjustments	459	—
Actuarial remeasurements	(4)	—
Retained earnings	716	6
	\$ 1,452	\$ 18



On August 18, 2016, Vitro and its minority partner Pilkington entered into a sale and purchase agreement of the participation that the latter had on Vitro’s the flat glass business at a purchase price settled in US\$16.

g) Basic and diluted earnings (loss) per share

The earnings (loss) and number of common shares used for the calculation of the basic and diluted earnings (loss) per share are as follows:

	Year ended December 31,	
	2015	2016
Earnings (loss) from continuing operations attributable to controlling interest	\$ (1,200)	\$ 3,618
Earnings from discontinued operations attributable to controlling interest	\$ 24,800	\$ –
Weighted average of common shares for calculation of basic and diluted earnings (loss) per share	483,125,929	483,125,929
Earnings (loss) per share from continuing operations	\$ (2.48)	\$ 7.49
Earnings per share from discontinued operations	\$ 51.33	\$ –

As of December 31, 2105 and 2016, basic and diluted earnings (loss) per share amount to the same figure as there were no dilution effects affecting the average of common shares for such calculations during the years then ended.

20. DISCONTINUED OPERATIONS

Food and beverage containers business

On May 12, 2015, the Company signed an agreement with Owens-Illinois, Inc. (“O-I”) accepting a bid to sell its food and beverages glass containers business. The transaction is valued, cash and debt free, at US\$2,150, and included the sale are five food and beverages glass container manufacturing plants in Mexico, one plant in Bolivia, and the distribution of such products in the USA, excluding the cosmetic business, the machinery and equipment business, the chemical business, and Vitro’s participation in Empresas Comegua, S.A. and Subsidiaries. This agreement was approved by Vitro’s stockholders at an Ordinary General Stockholders’ Meeting held on July 7, 2015.

On September 1, 2015, the food and beverages glass container transaction concluded successfully. The transaction was approved by the governing bodies of both entities and by the relevant regulatory authorities in Mexico and the USA.

The operations subject of this transaction met the required criteria of IFRS 5, “Non-current assets held for sale and discontinued operations” to be classified as discontinued, and therefore they are presented separately in the consolidated statements of profit or loss and other comprehensive income, and in the consolidated statements of cash flows.

Condensed statements of profit or loss and other comprehensive income of the discontinued operations for the eight-month period ended August 30, 2015 are as follows:

	2015
Revenues	\$ 8,842
Cost of sales	5,825
Gross profit	3,017
Operating expenses	840
Income before other expenses, net	2,177
Other expenses, net	14
Operating income	2,163
Interest cost, net	14
Income before income taxes	2,149
Income taxes	586
Income after income taxes	1,563
Gain on sale of discontinued operation	23,237
Total income from discontinued operation	\$ 24,800

Condensed statement of cash flows of the discontinued operations for the eight-month period ended August 30, 2015 are as follows:

	2015
Cash flows provided by operating activities	\$ 1,976
Cash flows used in investing activities	(848)
Cash flows used in financing activities	(17)
Increase in cash and cash equivalents	\$ 1,111

In the determination of tax effects arising from the sale of the business of glass containers for food and beverages, the Company used tax losses from the sale of shares in prior years by \$15,630, which was reserved and was not presented in the consolidated statement of financial position; likewise, tax-loss carryforwards from operation of \$8,529, was used.

21. RELATED PARTIES

Transactions with related parties, carried out in the ordinary course of business, were as follows:

a) **Products sold.**– The Company held operations for sales of services, technical advisory, and sales of spare parts and finished goods with Comegua, an associated company; these operations amounted to approximately \$53 and \$39, for the years ended December 31, 2015 and 2016, respectively.

On the other hand, the Company paid rent for certain properties for \$120 for the period from January 1, to August 30, 2015; after such date, the Company did not have this type of operation.

- b) **Purchase of food coupons.**— The Company purchases food coupons for its staff from a self-service store, of which one of our advisors is a stockholder. For the years ended December 31, 2015 and 2016, the amount of those purchases was \$110 and \$90, respectively.
- c) **Compensation to management’s key personnel.**— For the years ended December 31, 2015 and 2016, the total compensation for the services provided by our advisors and directors was approximately \$140 and \$113, respectively. This amount includes fees, wages, variable compensation and retirement bonuses.

22. OTHER EXPENSES, NET

The analysis of other expenses, net is as follows:

	Year ended December 31,	
	2015	2016
Reversal of impairment loss (note 9c)	\$ (56)	\$ —
Impairment of long-lived assets (note 9c)	—	136
Results on sale and cancelation of assets	109	71
Reorganization expenses	—	16
Other expenses (income), net	(46)	72
	\$ 7	\$ 295

23. FINANCIAL INCOME (COST), NET

Below is a breakdown of the most significant items that compose financial income (cost):

	Year ended December 31,	
	2015	2016
Interest expenses	\$ (1,132)	\$ (129)
Financial products	81	51
Restatement of taxes on tax consolidation	(93)	(132)
Derivative financial transactions	(162)	(11)
Exchange gain (loss), net	(1,306)	703
Employee benefits interest expense, net	(49)	34
Other financial expenses, net	(50)	(40)
	\$ (2,711)	\$ 476

24. INCOME TAXES

Income taxes recognized in earnings are analyzed as follows:

	Year ended December 31,	
	2015	2016
Current income taxes	\$ 78	\$ 125
Deferred income taxes	193	371
	\$ 271	\$ 496

The reconciliation between the Company’s actual income tax rate and that established in the Law, expressed as a percentage of income before income taxes, is analyzed as follows:

	Year ended December 31,	
	2015	2016
Actual rate	(79)%	12%
Foreign companies	(54)	1
Inflation	(23)	5
Valuation allowance for tax losses	183	15
Nondeductible expenses and others	3	(3)
Rate established in the Law	30%	30%

The movements of the deferred tax asset balance in the fiscal year are as follows:

	Year ended December 31,	
	2015	2016
Opening balance	\$ 8,330	\$ 3,609
Income tax applied to income	(193)	(371)
Deferred tax of discontinued operation	(4,288)	—
Business acquisition (note 11)	—	(1)
Actuarial remeasurements	(387)	(143)
Effect of hedges and restatement	147	67
	\$ 3,609	\$ 3,161

The main temporary differences that gave rise to deferred income taxes in the consolidated statements of financial position are analyzed as follows:

	December 31,	
	2015	2016
Accounts receivable	\$ 78	\$ 130
Employee benefits	329	139
Tax losses carryforwards	3,064	2,735
Intangible assets	847	899
Fixed assets	(512)	219
Derivative financial instruments	39	35
Inventories	68	69
Other	(304)	(124)
Deferred income tax asset	\$ 3,609	\$ 4,102
Accounts receivable	\$ —	\$ (100)
Employee benefits	—	72
Tax losses carryforwards	—	(80)
Fixed assets	—	656
Derivative financial instruments	—	35
Other	—	358
Deferred income tax liability	\$ —	\$ 941
Deferred income tax asset, net	\$ 3,609	\$ 3,161

As of December 31, 2016, the Company has tax loss carryforwards of \$8,142, which have the right to be applied to future income and expire as follows:

Expiration in:	Amount
2017	\$ —
2018	135
2019	43
2020	92
2021	2,549
2022	181
2023	1,685
2024	1,710
2025	751
2026	996
	\$ 8,142

In the determination of deferred income tax, according to the preceding subsections, the effects of tax loss carryforwards of \$1,118 were included; however, they were not recognized as assets because there is no high probability that they can be recovered. In addition, foreign subsidiaries have accumulated tax losses for which deferred income tax of \$367 was recognized.

The income taxes recognized in other components of comprehensive income are analyzed as follows:

	Year ended December 31,	
	2015	2016
Hedging of foreign operations and restatement effect	\$ 147	\$ 12
Actuarial remeasurements of benefits plan	(387)	(143)
Total income taxes recognized in other components of comprehensive income	\$ (240)	\$ (131)

25. OPERATING SEGMENTS

An operating segment is a Company's component that is engaged in business activities for which it can earn income and incur expenses, including income and expenses relating to transactions with any of the other components of the Company. All the operation results of the operating segments are reviewed periodically by the Company's management to make decisions on the resources that must be distributed to the segment and assess their performance.

Transactions between segments are determined based on comparable prices to those that would be used with or between independent parties in comparable transactions.

The accounting, administrative and operating policies are the same as those described by Vitro. The Company evaluates the performance of its segments based on operating income. Sales and transfers between segments are recorded in each segment as if they were made to third parties; i.e. at market prices.

The segments reporting in Vitro are strategic business units that offer different products. These segments are managed separately; each requires its own system of production, technology, and marketing and distribution strategies. Each market serves to different customer bases.

The Company has two operating segments to be reported: Containers and Flat Glass. The primary products of each one of the segments are:

Segment	Primary products
Glass containers	Glass containers, precision components, as well as machinery and molds for the glass industry.
Flat glass	Flat glass for the construction and automotive industries, and carbonate and sodium bicarbonate.

The holding, corporate and other companies are not classified as an operating segment according to IFRS 8, "Operating segments", they are classified in the "Others" column.



a) Following certain information is presented by segments:

Year ended December 31, 2015	Glass Containers	Flat Glass	Subtotal	Others and eliminations	Consolidated
Total sales	\$ 3,353	\$ 10,754	\$ 14,107	\$ 20	\$ 14,127
Sales to other segments	42	7	49	(49)	—
Consolidated net sales	3,311	10,747	14,058	69	14,127
Income before other (expenses) income, net	665	1,784	2,449	(186)	2,263
Interest income	628	785	1,413	(1,332)	81
Interest expense	2,012	827	2,839	(1,515)	1,324
Equity in income of associates	114	—	114	—	114
Income (loss) before income taxes	(2,136)	1,090	(1,046)	705	(341)
Income taxes	(617)	870	253	18	271
Income (loss) from discontinued operation, net of taxes	1,543	23,032	24,575	225	24,800
Depreciation and amortization	219	524	743	32	775
Investment in fixed assets	627	746	1,373	—	1,373
Reversal of impairment loss	—	(56)	(56)	—	(56)
As of December 31, 2015					
Investment in associated companies	\$ 17,494	\$ 1,618	\$ 19,112	\$ (17,703)	\$ 1,409
Total assets	56,930	55,841	112,771	(85,039)	27,732
Total liabilities	48,407	33,196	81,603	(74,015)	7,588

Year ended December 31, 2016	Glass Containers	Flat Glass	Subtotal	Others and eliminations	Consolidated
Total sales	\$ 4,491	\$ 15,205	\$ 19,696	\$ 144	\$ 19,840
Sales to other segments	17	6	23	(23)	—
Consolidated net sales	4,474	15,199	19,673	167	19,840
Income before other (expenses) income, net	882	2,960	3,842	(63)	3,779
Interest income	821	1,513	2,334	(2,283)	51
Interest expense	1,791	936	2,727	(2,466)	261
Equity in income of associates	102	—	102	—	102
Income (loss) before income taxes	1,489	2,921	4,410	(348)	4,062
Income taxes	555	664	1,219	(723)	496
Depreciation and amortization	198	771	969	56	1,025
Investment in fixed assets	509	1,561	2,070	84	2,154
Loss from impairment of long-lived assets	—	136	136	—	136
As of December 31, 2016					
Investment in associated companies	\$ 22,191	\$ 1,979	\$ 24,170	\$ (22,409)	\$ 1,761
Goodwill	—	963	963	—	963
Total assets	51,112	63,813	114,925	(69,494)	45,431
Total liabilities	40,559	30,550	71,109	(50,394)	20,715

b) Information related to main customers

Consolidated net sales conducted by the Company to a single customer in the glass containers segment presented two cases of concentration, whose amounts were higher than 10% for the years ended December 31, 2015 and 2016.

In addition, in the flat glass segment, there is a single case of concentration of sales to a single customer, whose amounts were greater than 10% for the fiscal year ended December 31, 2015. During fiscal year 2016, there were no cases of sales concentration to a single customer.

c) Geographical information

Certain geographical information regarding the Company's transactions is summarized as follows:

	Year ended December 31,	
	2015	2016
Net sales to customers <sup>(1)</sup> in:		
Mexico	\$ 9,588	\$ 11,344
Abroad, mainly to the USA	4,539	8,496
<sup>(1)</sup> According to the country where the Company is located.		

The geographic information of land and buildings, machinery and equipment, and investments in process is summarized as follows:

	December 31,	
	2015	2016
Lands and buildings, machinery and equipment and investments in process:		
Mexico	\$ 8,376	\$ 10,395
Abroad, mainly in the USA	97	6,953

The other non-current assets other than monetary items are summarized as follows:

	December 31,	
	2015	2016
Intangible asset, including goodwill:		
Mexico	\$ 48	\$ 38
Abroad, mainly in the USA	9	6,962

26. SUBSEQUENT EVENT

Conclusion of the acquisition of PGW's automotive Original Equipment Manufacturer business

On March 1, 2017, the Company successfully concluded the acquisition of PGW's automotive Original Equipment Manufacturer business (note 2e), completing the announcement of December 18, 2016. With this transaction, the Company acquired seven manufacturing plants, two satellite facilities and two float glass furnaces in the United States, one manufacturing plant in Poland and an equity share in two joint arrangements located in North America and China.

Below is a condensed statement of financial position as of March 1, 2017 of PGW's automotive Original Equipment Manufacturer business, which was acquired at a sale price of US\$310, debt free and working capital adjustments. The sale price was settle throughout a credit agreement for US\$230 from BBVA Bancomer and Vitro's own resources (note 2e).

The figures presented in the following table are informative and are subject to review by the Company's management.

Current assets	\$	4,401
Non-current assets		5,129
Total assets	\$	9,530
Short-term liabilities	\$	2,637
Long-term liabilities		695
Total liabilities	\$	3,332

27. AUTHORIZATION TO ISSUE THE FINANCIAL STATEMENTS

On March 14, 2017, the issuance of the accompanying consolidated financial statements and notes thereto was authorized by Adrián Sada Cueva, Chief Executive Officer, and Claudio L. Del Valle Cabello, Chief Administrative and Financial Officer.

These consolidated financial statements are subject to the approval at the ordinary stockholders’ meeting, where they may be modified, based on provisions set forth in the Mexican General Corporate Law.

Information for Shareholders

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STOCK MARKET

Bolsa Mexicana de Valores (BMV)  
Ticker Symbol

VITROA



Dividend Policy

The declaration, amount and payment of dividends are determined by the majority of shareholders entitled to vote at the Ordinary General Shareholders' Meeting. This decision is generally based on the recommendation of the Board of Directors. The terms and conditions for dividend payment declared by the relevant Ordinary General Shareholders' Meeting are generally proposed by the Board of Directors, whose purpose regarding dividends is to maintain a sound financial structure that allows the Company to pay dividends consistently.

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