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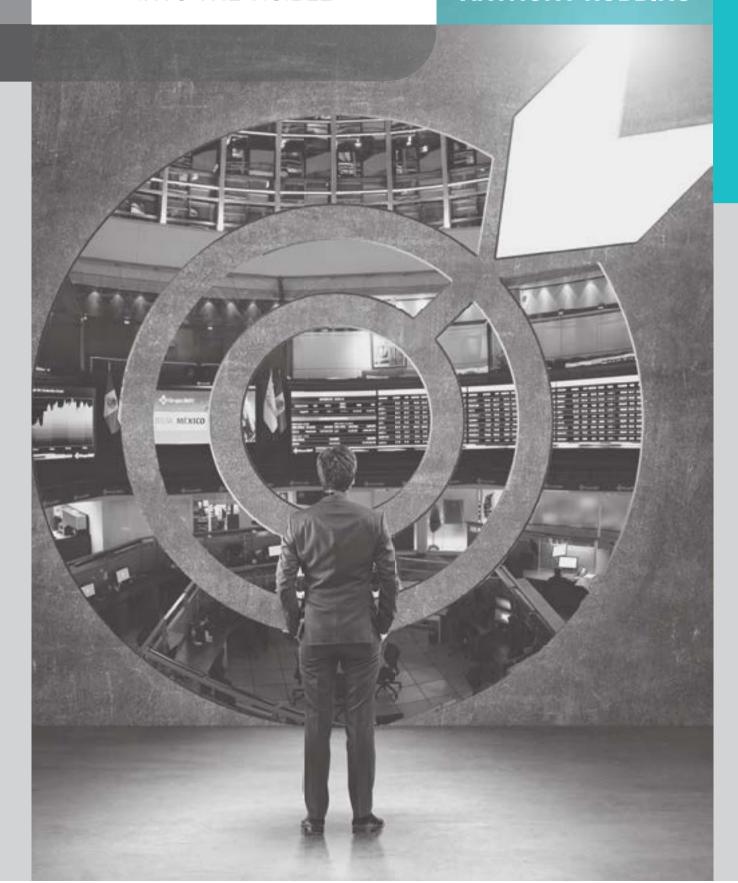
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STATEMENTS

### **SETTING GOALS**

IS THE FIRST STEP IN TURNING THE INVISIBLE INTO THE VISIBLE

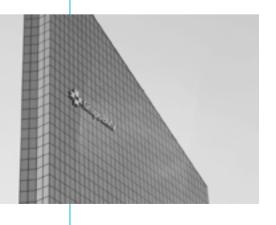
**ANTHONY ROBBINS** 



### **MESSAGE FROM THE CHAIRMAN**

# DEAR SHAREHOLDERS, COLLABORATORS AND FRIENDS OF BOLSA MEXICANA DE VALORES GROUP (MEXICAN STOCK EXCHANGE):

This year was a momentous year for the Mexican Stock Exchange and for Mexico. A year in which we renewed ourselves. we punctually met the needs of the market and confirmed our commitment to the development of our country. As every year, our priority is to earn the trust and loyalty of our collaborators, clients, shareholders and society.



The year began with uncertainty and volatility due to the renegotiation of the North American Free Trade Agreement, the electoral process in the first semester and the restrictive monetary policy by the Bank of Mexico (Central Bank). In the international area, the trade tension between the United States and China, the Brexit negotiations, the fall in the prices of raw materials and the rise in interest rates by the Federal Reserve of the United States stood out. The S&P500, FTSE 100, SHANGAI and S&P/BMV IPC indices registered decreases of 6.24%, 12.48%, 24.6% and 15.63% respectively. Despite all the adverse signs of 2018, the Mexican Stock Exchange managed to exceed the proposed goals and strengthen the basis for an even more successful 2019

The result of our strategy is reflected in the fulfillment of the objectives that we set in 2015: (i) greater efficiency, demonstrated by the continuous increase in the EBITDA margin during the last four years, (ii) excellence in services and innovation, a result of the development of new products and sustainable business models, and (iii) to be a catalyst for economic progress, attracting new companies and investors to the stock market. In the coming years, BMV Group will continue investing in Mexico, aligning our products and services to the needs of our clients and remaining a catalyst for the country's economic progress.

In an environment of increasing competition, the Mexican Stock Exchange maintains high liquidity for the shares traded in the market and the depth offered by its trading system has remained the reference in Mexico

With this institutional vision and with the presentation of the results and activities that are detailed in this Annual Report, I recognize the excellent performance. energy and commitment of all collaborators, as well as the trust of our shareholders, directors and clients who have helped to strengthen the already solid foundations of BMV Group and encourage us to continue developing the Mexican Stock Exchange.



### MESSAGE FROM THE CHIEF EXECUTIVE OFFICER

#### ▲ DEAR SHAREHOLDERS, COLLABORATORS, FINANCIAL INTERMEDIARIES AND GENERAL PUBLIC:

In a complex, competitive and volatile scenario, , 2018 was an excellent year for BMV Group, achieving for the eleventh consecutive year greater revenues, as well as a historical level

of net profit and EBITDA

margin.



Within this Annual Report 2018 you will find the detail of the main activities executed by each line of business and the results achieved, thus fulfilling the commitments that BMV Group assumed with the Board of Directors for this period. In this regard, it is worth mentioning the 40 new issuers that were listed in the securities market. out of which: (i) ten were debt issuers; (ii) three FIBRAS, three FIBRAS E, one SPAC and one TRAC; and (iii) twenty-two certificates of development capital and certificates of investment projects. Additionally, the restructuring and automation of Indeval's International Services area, as well as the reduction of fees related to conversion and custody, resulted in a 40% increase in the value of the assets in custody. This year, 430 foreign securities were listed, which represented an increase of 56% compared to 2017, where the new listings were 275. Currently, Indeval is the ninth largest custodian in the world processing 250 billion Dollars daily.

All this would not have been possible without the commitment of our team of professionals, who allowed us to achieve an increase in earnings per share of 19% and an EBITDA margin of 55%, 40 basis points higher than in 2017. Regarding the shareholder remuneration, BMV has increased the dividend every year since 2015 and, for this year, the company submits to the Shareholders' Meeting the distribution of 1.78 gross pesos per share, which represents an increase of 18% compared to 2017. I am sure that the set of these results speaks of the strong, innovative and solvent Stock Exchange that we continue to build for Mexico.

In addition, the rating agency Fitch Ratings assigned BMV the 'BBB +' long-term international scale ratings in foreign and local currency and

'AAA (mex)' long-term on a national scale, with a stable outlook. It is important to note that this rating is intended to inform the investing public of the solvency, soundness and financial stability of the Mexican Stock Exchange, from an objective and professional perspective issued by an expert, distinguishing us in our business niche.

Looking into the future, we are facing a volatile macroeconomic scenario and a growing political uncertainty, as well as the persistence of increasing regulatory requirements. It is in adverse scenarios where the strength of our strategy and business model is demonstrated year after year. I am confident that together we will continue to progress and achieve our goals in the coming years, and the results we have obtained since 2015 are evidence that we have everything necessary to contribute even more to Mexico's economic growth through stock market financing.

Finally, I would like to thank all the members of the BMV team: we have shown that we are capable of overcoming any challenge, that we go one step further to serve our clients and that we have the basis and commitment to be successful in the future

I send a sincere thanks to our **Board of Directors for their** dedication and support, as well as to all our investors for their confidence during 2018.



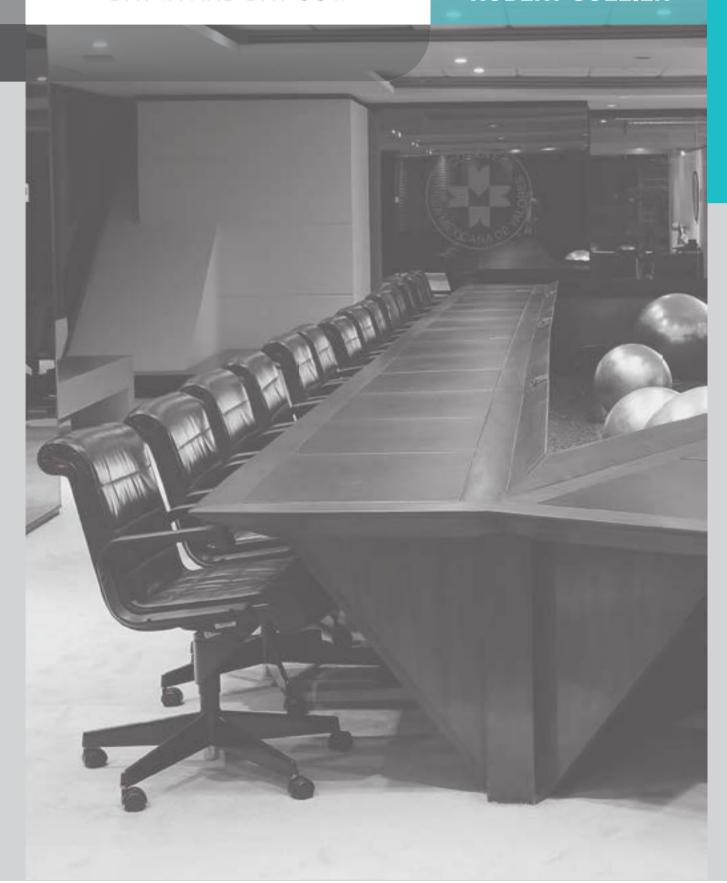
Sincerely, José-Oriol Bosch Par

**Chief Executive Officer** 

### **SUCCESS**

IS THE SUM OF SMALL EFFORTS, REPEATED DAY IN AND DAY OUT.

ROBERT COLLIER



### **BOARD OF DIRECTORS BMV**

▲ BOLSA MEXICANA DE VALORES, S.A.B. DE C.V. (BMV)



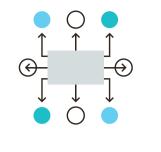
#### ► INSTITUTIONAL BOARD MEMBERS

### **OWNER**

Jaime Ruiz Sacristán Álvaro Vaqueiro Ussel Carlos Hank González Ernesto Ortega Arellano Juan Bordes Aznar Tomás Christian Ehrenberg Aldford Marcos Martínez Gavica

#### **SUBSTITUTE**

Carlos Bremer Gutiérrez Marcos Ramírez Miguel Eduardo Cepeda Fernández Edgardo Mauricio Cantú Delgado



#### ► INDEPENDENT BOARD MEMBERS

### OWNER

Francisco Gil Díaz
Alfonso González Migoya
Blanca A. Treviño de Vega
Alberto Navarro Rodríguez
Eduardo Valdés Acra
Fernando Ruíz Sahagún
Alberto Torrado Martínez
Claudio X. González Laporte

### SUBSTITUTE

José Luis Guerrero Álvarez Clemente Reyes-Retana Valdés

### PRESIDENT

Jaime Ruiz Sacristán

### OWNER COMMISIONER

Guillermo Roa Luvianos

#### OWNER SECRETARY

Rafael Robles Miaja

#### SUBSTITUTE COMMISIONER

Rony García Dorantes

#### SUBSTITUTE SECRETARY

Clementina Ramírez de Arellano Moreno

### **COMMITTEES BMV**

#### **▲ MAIN FUNCTIONS AND MEMBERS**



Coordinate the activities aimed at the correct risk assessment of the Company and of the entities that control, with the collaboration of internal audit, the areas involved and, where appropriate, the support of external advisors.

#### Members:

Alfonso González Migova (President)

Alberto Navarro Rodríguez Fernando Ruíz Sahagún



Perform the activities on corporate practices established by the Securities Market Law and analyze and evaluate the operations in which the Company has a conflict of interest.

#### Members:

Alfonso González Migoya (President)

Alberto Navarro Rodríguez Fernando Ruíz Sahagún



Establish and maintain a regulatory framework of a self-regulatory nature.

#### Members:

Alberto Saavedra Olavarrieta (President)

Juan Pablo del Río Benítez Rosa Martha Ríos Vázquez Hernán Sabau García María Teresa Vargas de Regil



▲LIST OF ISSUER **COMPANIES** 

Evaluate and, where appropriate, approve the admission and listing of securities of issuers in the Mexican Stock Exchange

#### Members:

Xavier M. de Uriarte Berrón (President)

Jorge Eduardo Alonso Olivares Mauricio Basila Lago Carlos Césarman Kolteniuk



Perform advisory activities regarding technology infrastructure and ecosystem.

#### Members:

Francisco Gil Díaz (President) Guillermo Güémez Sarre Bárbara Mair Rowberry



Evaluate and, where appropriate, approve the admission of financial intermediaries that intend to operate through the Company's trading systems.

#### Members:

Alfonso González Migova (President) Alberto Navarro Rodríguez Fernando Ruíz Sahagún



Coordinate the functions of market surveillance in charge of the Company, integration including the investigation of cases of alleged violations of the Self Regulatory Standards issued by the Company, the provisions of its Internal Regulations and other regulations of the Mexican Stock Exchange, committed by the persons bound by these provisions

#### Members:

José Luis Guerrero Álvarez (President) Luis A. Nicolau Gutiérrez Antonio Villarruel Lagos



Know and decide on the cases of alleged violations of the Self Regulatory Standards issued by the Company, the provisions of its Internal Regulations and other regulations of the Exchange, committed by the obligated persons in accordance with said provisions and impose the corresponding penalties.

#### Members:

Jorge Gaxiola Moraila (President) Ernesto Nuño Gutiérrez Romeo Vizzani Fuentes

### **BOARD** OF DIRECTORS MEXDER

### ▲ MEXDER, MERCADO MEXICANO DE DERIVADOS, S.A. DE C.V. (MEXDER)



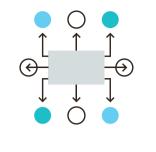
#### ► INSTITUTIONAL BOARD MEMBERS

### **OWNER**

Jaime Ruiz Sacristán José de Aguinaga Girault Tomás Acosta Álvarez Gerardo Vargas Pérez

### **SUBSTITUTE**

José-Oriol Bosch Par Ernesto Fernández Arias Mauricio Dibildox Valls



#### ► INSTITUTIONAL BOARD MEMBERS

### OWNER

Guillermo Zamarripa Escamilla Alberto Saavedra Olavarrieta Hernán Sabau García

### SUBSTITUTE

Jorge Sánchez Tello Esteban Puente Mier Alfonso Monroy Mendoza

### ▲ PRESIDENT

Jaime Ruiz Sacristán

#### **OWNER COMMISIONER**

Guillermo Roa Luvianos

#### OWNER SECRETARY

Rafael Robles Miaja

#### SUBSTITUTE COMMISIONER

Rony García Dorantes

#### SUBSTITUTE SECRETARY

Clementina Ramírez de Arellano Moreno

### **COMMITTEES MEXDER**

#### **▲ NEW PRODUCT DEVELOPMENT**



#### Members:

José Vila Lorente (President) Guillermo Camou Hernández Enzo D Antonio di Vito Alfonso García Araneda Víctor Manuel Gutiérrez López Celso Hernando Ledesma Rodríguez Andrés Moreno Arias Guillermo Ochoa Tommasi Ricardo Sigueiros Suárez



#### **Independent Members:**

Alfonso González Migoya (President) Clemente Reyes-Retana Valdés Alberto Rodríguez Navarro Fernando Ruíz Sahagún



#### **Independent Members:**

Jorge Gaxiola Moraila (President)

Ernesto Nuño Gutiérrez Romeo Vizzani Fuentes





#### **Independent Members:**

Alberto Saavedra Olavarrieta (President)

Juan Pablo del Río Benítez Hernán Sabau García

#### **Institutional Members**

Rosa Martha Ríos Vázquez María Teresa Vargas de Regil

#### **BOARD OF DIRECTORS ASIGNA**

### **▲** ASIGNA, **COMPENSACIÓN Y LIQUIDACIÓN**



#### ► INSTITUTIONAL MEMBERS

#### OWNER

Jaime Ruiz Sacristán Álvaro Vaqueiro Ussel Héctor Guillermo Camou Hernández José De Aguinaga Girault Mauricio Francisco José Schwartzmann Karanovich

#### SUBSTITUTE

José-Oriol Bosch Par María Eugenia Palomera Mancilla Salvador Peredo Mendía Guillermo Ochoa Tommasi Carolina Rendón Hinterholzer

#### ► INDEPENDENT MEMBERS

León de Paul Martínez Clemente Reyes-Retana Valdés Hernán Sabau García Alberto Saavedra Olavarrieta Jendanny Raña Custodio Alfonso González Migoya Luis Perezcano Díaz Alfonso Monroy Mendoza

### PRESIDENT

Jaime Ruiz Sacristán

### OWNER SECRETARY

SUBSTITUTE SECRETARY

Rafael Robles Miaja

Clementina Ramírez de Arellano Moreno

#### **SUB COMMITTEES ASIGNA**



#### ADMINISTRATION

### OWNER

Leticia Torrescano Ibarra (*President*)
Gonzalo Benavides Soriano
Araceli Fernández Ortiz
Renata Meza Arana
Susana Alejandra Morales Mendoza

### SUBSTITUTE

José Manuel Federico Barbosa Robledo Patricio de la Vega Flores Quiahuitl Aztryd Marín Galván Sandra Laura Hernández Macías Alfonso Vázquez Moreno



## ADMISSION OF MEMBERS AND RISK ADMINISTRATION

#### OWNER

León de Paul Martínez (*President*)
Hesiquio Gerardo Cabañas Tapia
Adriana Katia Dobbertin Félix
Gustavo Iván Fuertes Sánchez
Graciela García Vázquez
Ruth Peña Thompson
Aldo Raúl Trillo Sánchez

#### **SUBSTITUTE**

Dzoara de la Cruz Torres

Jaime Enríquez Martínez de Velasco

Octavio Mieres Hermosillo



#### AUDIT

#### **MEMBERS**

Alfonso González Migoya (President) Clemente Reyes-Retana Valdés Alberto Rodríguez Navarro Fernando Ruíz Sahagún



#### DISCIPLINARY

#### **MEMBERS**

Jorge Gaxiola Moraila (President) Ernesto Nuño Gutiérrez Romeo Vizzani Fuentes



#### **NORMATIVE AND ETHICS**

#### **MEMBERS**

Alberto Saavedra Olavarrieta (President) Juan Pablo del Río Benítez Hernán Sabau García Rosa Martha Ríos Vázquez María Teresa Vargas de Regil

### **BOARD OF DIRECTORS CCV**



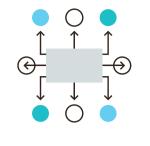
#### ► INSTITUTIONAL BOARD MEMBERS

### **OWNER**

Jaime Ruiz Sacristán José De Aguinaga Girault Ernesto Ortega Arellano Roberto Valdés Acra

### **SUBSTITUTE**

José-Oriol Bosch Par Luis Murillo Peñaloza Roberto Quirós Caballero



#### ► INDEPENDENT BOARD MEMBERS

### **OWNER**

León de Paul Martínez Hernán Sabau García Clemente Reyes-Retana Valdés

### **SUBSTITUTE**

Jendanny Raña Custodio Luis Perezcano Díaz Alfonso González Migoya

### **PRESIDENT**

Jaime Ruiz Sacristán

### **OWNER COMMISIONER**

Guillermo Roa Luvianos

#### **OWNER SECRETARY**

Rafael Robles Miaja

#### **VICEPRESIDENT**

Ernesto Ortega Arellano

#### SUBSTITUTE COMMISIONER

Rony García Dorantes

#### SUBSTITUTE SECRETARY

Clementina Ramírez de Arellano Moreno

### **COMMITTEES CCV**

#### **MAIN FUNCTIONS AND MEMBERS**



Responsible for coordinating activities aimed at the correct risk assessment of the Company, with the collaboration of internal audit, the areas involved and, where appropriate, the support of external advisors.

#### Members:

Alfonso González Migoya (President) Alberto Navarro Rodríguez Fernando Ruíz Sahagún Clemente Reyes-Retana Valdés



An entity that has among its main activities to determine and apply the Company's risk management system, understood as such, the set of measures that aim to ensure compliance with the obligations deriving from the operations in which the Company acts as debtor and reciprocal creditor, as well as proposing the issuance of operational and prudential regulations and the adoption of self-regulatory norms applicable to the Company and its recipients and recipients.

#### **▲** RISK

#### **Independet Members:**

#### Owner

León de Paul Martínez (President) Gustavo I. Fuertes Sánchez

Sergio García Quintana Hesiquio Gerardo Cabañas Tapia

#### Substitute

Alejandro Diosdado Rodríguez Francisco Fernández Antonio Jendanny Raña Custodio

#### **Institutional Members**

#### Owner

Octavio Mieres Hermosillo Daniela Gallardo Loera

#### Substitute

Rogelio Sandoval Saavedra

#### Monitor compliance with the rules that constitute the risk management system of the Company

#### Members



**▲**SUPERVISION

#### Owner

Patricio de la Vega Flores (President)

Bernardo Ernesto Reyes Retana Felipe Torres Luquin Gabriel Rincón Hernández Iñigo Ruíz Bada Carlos Alberto Gómez Rocandio

#### Substitute

Jessica Yolanda Durán Olquin Airam Paloma Torres Martínez Ricardo Arteaga Botello Salvador Martínez García

To apply disciplinary measures for non-compliance with the standards issued by the Company.



#### Members

Jorge Gaxiola Moraila (President)

Ernesto Nuño Gutiérrez Romeo Vizzani Fuentes

### **BOARD OF DIRECTORS S.D. INDEVAL**

▲S.D. INDEVAL INSTITUCIÓN PARA EL DEPÓSITO DE VALORES, S.A. DE C.V. (CCV)



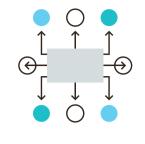
#### ► INSTITUTIONAL BOARD MEMBERS

### **OWNER**

Jaime Ruiz Sacristán Ernesto Ortega Arellano Roberto Valdés Acra José de Aguinaga Girault Luis Manuel Murillo Peñaloza

### **SUBSTITUTE**

José-Oriol Bosch Par (Grupo BMV) Manuel Lasa Lasa Roberto Quiros Caballero Ramón Eduardo Vázquez Villegas Antonio Dodero Portilla



#### ► INDEPENDENT BOARD MEMBERS

### **OWNER**

Jaime José Cortina Morfin Francisco Zago Berra (Private Consultant)

Alfonso González Migoya Clemente Reyes-Retana Valdés

### **SUBSTITUTE**

Manuel Miguel Ángel Díaz Díaz Jorge E. Alonso Olivares Alberto Navarro Rodríguez Pablo Cuevas Palacios

#### **PRESIDENT**

Jaime Ruiz Sacristán

#### **OWNER COMMISIONER**

Guillermo Roa Luvianos

#### **OWNER SECRETARY**

Rafael Robles Miaja

#### **VICEPRESIDENT**

Ernesto Ortega Arellano

#### **SUBSTITUTE COMMISIONER**

Rony García Dorantes

#### SUBSTITUTE SECRETARY

Clementina Ramírez de Arellano Moreno

### **COMMITTEE** S.D. INDEVAL



#### **AUDIT**

Reponsible f or coordinating t he activities aimed a t the correct risk assessment of the Company, with the collaboration of internal audit, the areas involved a nd, where appropriate, the support of external advisors

#### Members

Alfonso González Migoya (President) Alberto Navarro Rodríguez Clemente Reyes-Retana Valdés Fernando Ruíz Sahagún

### **BROKERAGE HOUSES MEMBERS OF BMV**

### **▲INTEGRAL MEMBERS**

# Intermediation activities in the capital and debt markets

1	Actinver Casa de Bolsa, S.A. de C.V.
2	Barclays Capital Casa de Bolsa, S.A. de C.V., Grupo Financiero Barclays México
3	BTG Pactual Casa de Bolsa, S.A. de C.V.
4	Bursamétrica Casa de Bolsa, S.A. de C.V.
5	Casa de Bolsa Banorte, S.A. de C.V., Grupo Financiero Banorte
6	Casa de Bolsa BBVA Bancomer, S.A. de C.V., Grupo Financiero BBVA Bancomer
7	Casa de Bolsa Credit Suisse (México), S.A. de C.V., Grupo Financiero Credit Suisse (México)
8	Casa de Bolsa Finamex, S.A.B. de C.V.
9	Casa de Bolsa Multiva, S.A. de C.V., Grupo Financiero Multiva
10	Casa de Bolsa Santander, S.A. de C.V., Grupo Financiero Santander
11	Casa de Bolsa Ve por Más, S.A. de C.V., Grupo Financiero Ve por Más
12	CI Casa de Bolsa, S.A. de C.V.
13	Citibanamex Casa de Bolsa, S.A. de C.V., Casa de Bolsa integrante del Grupo Financiero Citibanamex
14	Deutsche Securities, S.A. de C.V., Casa de Bolsa
15	Evercore Casa de Bolsa, S.A. de C.V.
16	Grupo Bursátil Mexicano, S.A. de C.V., Casa de Bolsa
17	HSBC Casa de Bolsa, S.A. de C.V., Grupo Financiero HSBC
18	Intercam Casa de Bolsa, S.A. de C.V.

19	Inversora Bursátil, S.A. de C.V., Casa de Bolsa, Grupo Financiero Inbursa
20	Invex Casa de Bolsa, S.A. de C.V., Invex Grupo Financiero
21	J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero
22	Merrill Lynch México, S.A. de C.V., Casa de Bolsa
23	Monex Casa de Bolsa, S.A. de C.V.
24	Morgan Stanley México, Casa de Bolsa, S.A. de C.V.
25	Punto Casa de Bolsa, S.A. de C.V.
26	Scotia Inverlat Casa de Bolsa, S.A. de C.V., Grupo Financiero Scotiabank Inverlat
27	UBS Casa de Bolsa, S.A. de C.V.
28	Value, S.A. de C.V., Casa de Bolsa, Value Grupo Financiero
29	Vector Casa de Bolsa, S.A. de C.V.
30	Vifaru S A de C V Casa de Rolsa

#### ▲ INTEGRAL MEMBERS

### Intermediation activities in the capital and debt

- Casa de Bolsa Base, S.A. de C.V., Grupo Financiero Base
- Goldman Sachs México, Casa de Bolsa, S.A. de C.V. 2
- Masari, Casa de Bolsa, S.A.

### **BMV GROUP'S MISSION**

We make the operation of the stock market and the derivatives market in Mexico possible



#### Through a group of integrated businesses,

covering all stages of stock transactions, from promotion, execution of orders, settlement of transactions, custody and clearing, risk management, as well as the production of information in real time and of added value.

#### Supported by our talent and experience,

which ensure competitiveness and high standards of efficiency and transparency in the provision of services, as well as the optimal use of cutting-edge technology and platforms.

#### With commitment and passion

to promote the growth and development of the country.

### **BMV GROUP'S VISION**



To maintain our leadership in the the stock and derivatives markets, for the excellence of our services, experience and innovation, and therefore be a catalyst for economic progress.

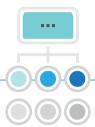


### **BMV GROUP'S VALUES**



#### Six values essentially define our organization

and provide the performance guidelines for all those who proudly collaborate with BMV Group.





Teamwork unites our talent in order to achieve better results.



Integrity guides all our actions.



**Transparency** is the basis of the trust we generate in the market



**Innovation**, the axis of transformation and continuous improvement.



**Customer Service** is the priority in **Excellence** drives our daily work. the execution of our activities.



### **BMV GROUP'S** DIRECTORS

José-Oriol Bosch Par	Chief Executive Officer
José Manuel Allende Zubiri	Deputy General Director of Issuers and Information
Roberto González Barrera	Deputy General Director of Deposit
Luis A. Rodríguez Mena	Deputy General Director of Technology
Catalina Clavé Almeida	Deputy General Director of Houses/Chambers
Hugo A. Contreras Pliego	Director General Adjunto de Cumplimiento y Normatividad
Aída S. Andrade Ancira	Deputy General Director of Compliance and Regulations
José Miguel De Dios Gómez	Director of Transactional Services of the Derivatives Market
Pedro Díez Sánchez	Director of Market Surveillance
Roberto Gavaldón Arbide	Director of Corporate Communication and Cultural Promotion
Ramón Güémez Sarre	Director of Administration and Finance
Alfredo R. Guillén Lara	Director of Transactional Services of the Capital Market
Clementina Ramírez de Arellano Moreno	Legal and Regulatory Director
Gabriel Rodríguez Bas	SIF Icap General Director
Rosa Lara Crespo Casas	Director of Human Factor and Education

# PASSION IS THE BEGINNING OF SUCCESS

### ROBERT KIYOSAKI



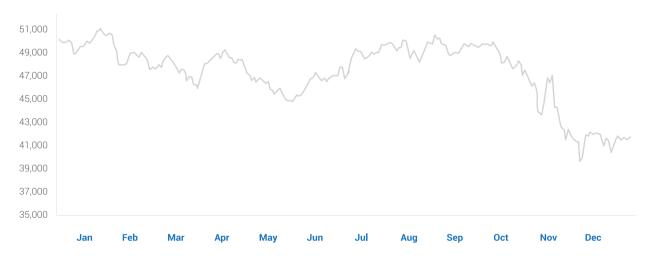
### **OUR MARKETS IN FACTS**

#### **▲**I. STOCK **MARKET**

In 2018 high levels of volatility were observed; this is explained due to the geopolitical and economic changes observed in the global and local environment, the latter presenting a great impact due to the change in government and the uncertainty generated by it. During this fiscal year, the FIX exchange rate reached a maximum of \$20.72 pesos per dollar, while the Bank of Mexico (Central Bank) increased the overnight interbank interest rate several times, closing the vear at 8.25%.

In view of this environment, the Mexican Stock Exchange (BMV) Prices and Quotation Index (IPC) accumulated a variation of -15.63% in pesos and -15.58% in dollars, reaching 41,640.3 units at the end of the year. On the other hand, BMV's share (BOLSAA) accumulated a variation of -1.06% in pesos and -1.0% in dollars, closing at a price of 33.49.

Source: Valmer



Figures in Units

Other BMV indices such as IPC Sustainable, Bursa Óptimo and IPC CompMX had negative nominal variations in pesos of -17%, -17% and -16% respectively.

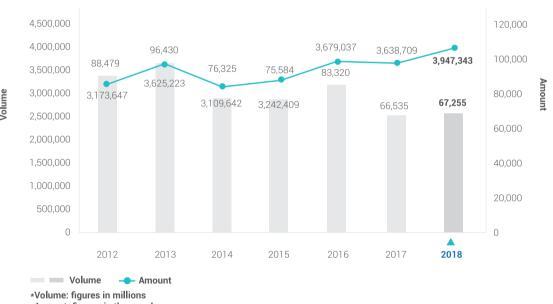
The capitalization value in national currency decreased 7.82% in nominal terms and 7.89% in dollars (without considering foreign issuers).

#### ► Capitalization value as a percentage of the GDP

	2014	2015	2016	2017	2018
Amount in millions of pesos	7,078,720.30	6,953,833.00	7,267,265.47	8,206,380.07	7,564,412.29
% GDP	41.5%	38.9%	37.1%	40.1%	40.64%

In the stock market, the volume traded was 67,255 million shares with a value of \$3,947,343 million pesos, representing an increase of 8.48% in amount and 1.08% in volume, compared to the values recorded during the previous year.

#### Operability of the stock market



\*Amount: figures in thousands

#### Operability of the Stock Market

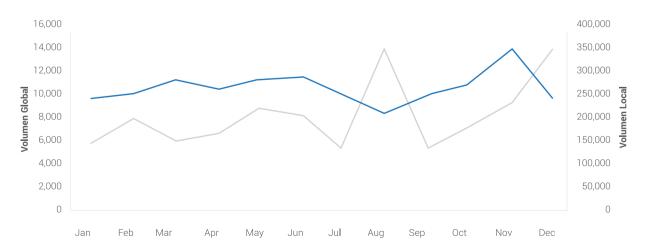
Concept	2017	2018	Variation %
Number of Transactions	277,628	379,690	8.48 %
Volume (000,000)	265	268	37.76 %
Amount (\$000,000)	14,497	15,726	1.08 %

In the cumulative 2018, it was observed that the VOPD of the total market increased 8% compared to the previous year explained by the growth in the operation of the International Quotation System (SIC), where the growth was 26%. Revenues accumulated in the year for trading of shares were 317 million pesos, 30 million more or 10% higher than the ones reported in 2017.

Total Market	2015	2016	2017	2018
Traded Value	12,934	14,595	14,497	15,726
Transactions	197,308	292,247	277,628	379,690
Volume	301,810	330,561	265,080	267,948
Local Market				
Traded Value	9,336	10,287	9,276	9,163
Transactions	195,009	288,928	274,889	376,430
Volume	295,458	323,554	257,898	259,791
Global Market				
Traded Value	3,598	4,309	5,221	6,564
Transactions	2,299	3,318	2,739	3,260
Volume	6,352	7,008	7,182	8,157

<sup>\*</sup>Traded value: figures in millions \*Volume: figures in thousands

The traded volume of the Local and Global Market in 2018 is shown below:



Figures expressed in thousands

On the other hand, the daily averages of messages, bids, cancellations and events registered in 2018 present positive variations of 21%, 17%, 26% and 6%, respectively, in comparison with the figures of 2017, as shown below:

Year	Messages	Bids	Cancellations	Events	Ratio Bids/Events	Ratio Mssj/Events
2007	122,900	51,785	33,814	14,152	4	9
2008	284,164	60,599	38,254	18,333	3	16
2009	399,235	157,694	126,664	29,774	5	13
2010	829,253	386,306	347,352	33,522	12	25
2011	1,759,064	707,948	656,227	48,981	14	36
2012	2,264,450	847,268	758,850	79,317	11	29
2013	3,398,640	1,113,028	953,365	138,801	8	24
2014	3,144,305	1,289,285	1,103,164	155,682	8	20
2015	3,821,506	1,530,429	1,315,633	197,863	8	19
2016	3,927,246	1,674,650	1,355,169	292,247	6	13
2017	3,961,917	1,743,330	1,301,551	358,818	5	11
2018 ▶	4,791,014	2,039,684	1,638,638	379,604	5	13

It should be noted that in 2018 the amount traded via Program Trading represented 37% of the total market, 4% more than the previous year.





In the year of this report, the transmission of orders from intermediaries to the Stock Exchange made as follows:

- Routing: 99.75%
- BMV SENTRA Capitals: 0.25%

2017, the use of these In components was 99.55% and 0.45%, respectively.

#### ▲ II. DERIVATIVES MARKET

The derivatives market in 2018 traded a daily average of 9,200 million pesos in total, distributed as follows: the Dollar Futures with 250 million dollars, Swaps with 2,250 million pesos, IPC Futures 1,700 million pesos and Bonds Futures 200 million pesos.

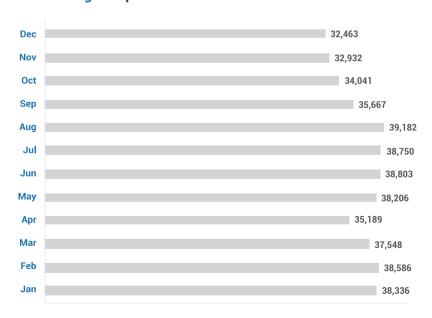
The following graphs show the behavior of the market during this year, in a general way and in the main products:

#### Volume and Notional Amount



Volume: figures expressed in millions Notional amount: figures expressed in thousands

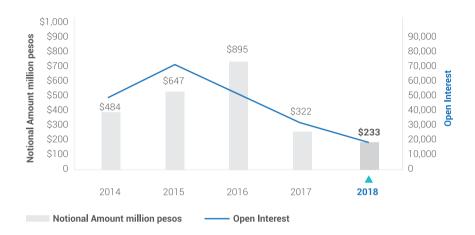
#### ► Margin Deposits



\*Margin Deposits: figures expressed in millions

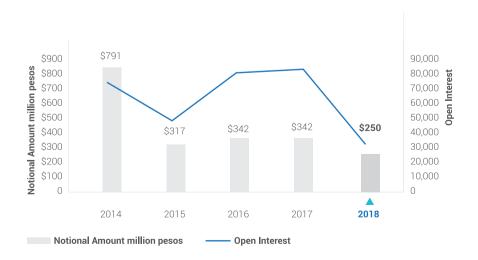
## **Bonds Futures**

- In 2018 an average of \$233 million pesos were traded daily.
- The most traded bond was the DC24.



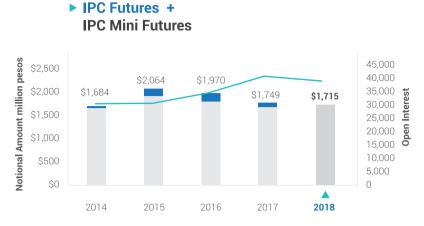
## **Dollar Futures**

- In 2018, 250 million dollars were traded.
- The Dollar Futures contracts had an adjustment in their rates per transaction, increasing by 35%; however, even with this increase MexDer is still 4 times cheaper than the competition.
- The traded volume decreased 27% compared to 2017.



## **IPC Futures + IPC Mini Futures**

- The IPC Futures in 2018 had an increase of 6% in the volume of traded contracts with an average of \$1,715 million pesos daily
- · At the end of 2018, this instrument had a Brazilian client participation approximately 40% of the open interest.



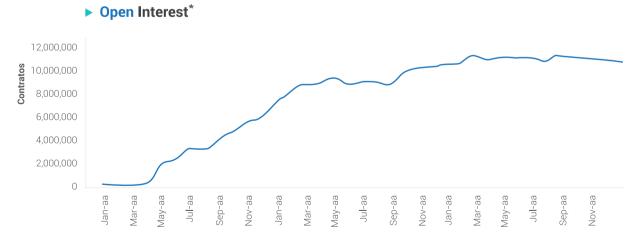
## **Swaps Futures**

- In March the open interest reached the record with 1.1 million millions pesos, at the end of 2018 the open interest was 1 million millions, this is 700 million millions pesos higher than at the end of 2017
- The average traded during 2018 is concentrated in 37 coupons, equal to the previous year.



Notional Amount Mini IPC million pesos -

Open Interest



Notional Amount IPC million pesos

\*At December 31:10,975,759 open contracts



At December 31, 2018, the open interest in MexDer and brokers was 10,975,759 contratos.

# ▲ OTC MARKET

Annual revenues in 2018 amounted to 585 million pesos, 26 million or 5% higher than those observed in 2017. It should be noted that there was an extraordinary income in the second quarter of 12 million pesos due to the resolution of an employment dispute.

The volumes traded in Mexico, as well as the transactions agreed in 2018 by business area are shown below:

_				*
<b>Transact</b>	ions	in	SIF	ICAP"

	2016	2017	2018
Government Bonds			
Transactions <sup>(1)</sup>	157	156	167
Amount <sup>(2)</sup>	4,213	5,882	6,790
SET TD			
Transactions <sup>(1)</sup>	73	65	68
Amount <sup>(2)</sup>	100	101	117
Assignment			
Transactions <sup>(1)</sup>	90	66	64
Amount <sup>(2)</sup>	143	146	126
Interest Rate Swaps			
Transactions <sup>(1)</sup>	8	2	3
Amount <sup>(2)</sup>	16,694	8,478	7,926
SIPO			
Transactions <sup>(1)</sup>	136	130	127
Amount <sup>(2)</sup>	371	503	619
Corporate debt instruments			
Transactions <sup>(1)</sup>	0	0	0
Amount <sup>(2)</sup>	3,130	8,573	6,441

<sup>(1)</sup> Average daily number of transactions

<sup>(2)</sup> Amount 28 days average, in thousands of pesos

#### Amount

	2017	2018	Variation %
Corporate Bonds	0.7	2,178	311,043
Funding and Repos	29,908	34,453	15
SIPO	55,782	60,956	9
Government Bonds	2,906	3,270	13
OTC Derivatives	203	969	377

Thousands of Millions of pesos

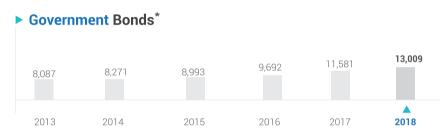
#### **Number of Transactions**

	2017	2018	Variation %
Government Bonds	39,373	41,633	5.74
Corporate Bonds	18	22	22.22
OTC Derivatives	373	816	118.77
Funding and Repos	16,307	16,992	4.20
SIPO	35,575	34,742	(2.34)

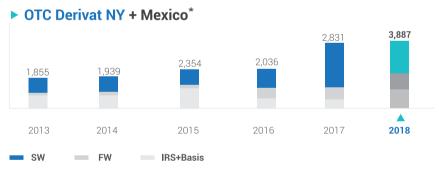
**Number of Transactions** 



#### ► Interbank and institutional funding\* 424,717 356,200 378,895 358,800 365,111 340,544 2015 2018 2013 2014 2016 2017 SIPO RFQ SET TD



<sup>\*</sup>Average daily volume in millions of pesos



\*Average daily volume in millions of dollars

In terms of market share, our presence in the OTC Market was:

<ul> <li>Funding and Repos</li> </ul>		30%
<ul> <li>Government Bonds</li> </ul>	33%	
<ul> <li>Corporate Bonds</li> </ul>	25%	
· SIPO		63%
<ul> <li>OTC Derivatives</li> </ul>		20%

<sup>\*</sup>Information prepared based on market estimates.

<sup>\*</sup>Average daily volume in millions of pesos

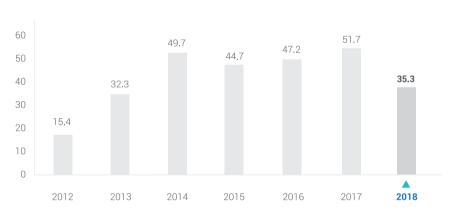
While the percentage of revenue per market for this year was:

<ul> <li>Government Bonds</li> </ul>	49%
<ul> <li>Funding and Repos</li> </ul>	13%
<ul> <li>Corporate Bonds</li> </ul>	1%
<ul> <li>OTC Derivatives</li> </ul>	4%
• SIPO	27%
<ul> <li>SIPO Auctions</li> </ul>	6%

# **SIF Icap Chile**

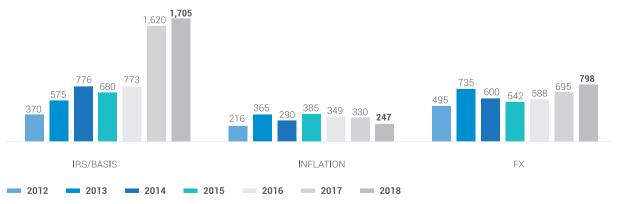
The average daily operation of SIF Icap Chile in government bonds, IRS/Basis, inflation and forex is shown below:

#### **Bonds Government\***



<sup>\*</sup>Average Daily Volume Millions of Dollars at December 30 2012-2018

#### **▶ OTC Derivatives**\*



\*Average Daily Volume Millions of Dollars at December 30 2012-2017

# TRANSACTIONAL SERVICES

# ▲ I. TRANSACTIONAL SERVICES

# IN THE CAPITAL MARKET

# 1. Operative Improvements

In order to maintain the process of continuous improvement, strengthen transactional security and market continuity, during 2018 BMV Group implemented the following initiatives that allow us to be at the forefront and on par with the most advanced Exchanges in the world.

- a) Integration to the market and limited bids, the functionality "total close or cancel" and "partial close or cancel"
- b) Incorporation of Block transactions.
- c) Development of the limited market bid (ML).
- d) Optimization of the short sales transaction, eliminating the bid criteria and the minimum sale price (according to the brokerage firms' communication).
- e) Update of the cross functionality; incorporating the fields I give/I take to define the maximum amount of participation.
- f) Registration of the prices of the market of origin in securities of the SIC at the opening of the auction session.
- a) Modification of the deadline for the withdrawal of bids, duration and random assignment of volatility auctions.

# 2. Transmission of information with other Exchanges.

In order to meet the provisions of various Communications issued by the National Banking and Securities Commission (CNBV) for the start of a new Exchange, BMV allocated significant resources for the implementation and adaptation of systems, rules and procedures that allow the establishment of real-time communication between markets.

The information flow considers the entire cycle:

- a) Listing and administration of new securities.
- **b)** Diffusion of corporate events.
- c) Determination of the status of the securities.
- d) Suspension and resumption of the quotation of a security.
- e) Operation and determination of closing prices of securities.

# 3. Continuity of the Auction Session.

As part of BMV Group's annual program, the operation of the market was validated with satisfactory results from the Alternate Operating Center "COA", allowing the validation of the continuity of the Capital Market Auction Sessions. Additionally, the Disaster Recovery Plan was applied to cover any contingency with the Exchange's Main Data Center.

# 4. Availability and capacity of the Transactional System.

During 2018 the level of availability of MoNeT, BMV's Transactional Engine, stood at 99.99%, in line with the levels offered by the markets at an international level.

An average of 4.7 million messages are received daily, with a historical maximum of 8.2 million, below the installed capacity that allows BMV to receive more than 25 million messages a day.

# 5. Extension of the range of messages to transactions.

In order to support the record of greater activity in the market participants that handle high frequency algorithms, the Exchange expanded, as of February, 2018, by 42%, the efficiency ratio of messages to transactions, placing its first level at no cost in 1,500 messages for each transaction executed.

## 6. MILA (Integrated Latin American Market)

During 2018 the Mexican Intermediaries (mainly Actinver) carried out 4,263 transactions in Chile, Colombia and Peru for an amount of \$373.1 million pesos. In total, the MILA operation involving Mexican intermediaries represented more than \$19.5 million dollars.

#### 7. Market Maker

The Market Maker scheme released in September, 2008, has been maintained with excellent results. At the closing of 2018 there are 6 Brokerage Firms acting as Makers participating in at least 80% of the Auction Sessions with buying and selling bids at competitive prices; this service is presented in 40 issuers that represent 27.5% of the titles listed in the Exchange's domestic variable equity market.

## 8. Co-Location Services

At the end of 2018, 27% of the Brokerage Firms that operate in the Capital Market maintain their transactional servers together with the Exchange's Central Trading Engine. This has allowed clients with high and/or low frequency algorithms to obtain better response times.

# ▲II. TRANSACTIONAL SERVICES IN THE DERIVATIVES MARKET

During 2018, MexDer was working on strategic initiatives for its development, so analysis and planning were fundamental for the consolidation of projects in 2019.

The main efforts made in 2018 are mentioned below:

# **Technology**

### 1. New version of the Trading MexFix

In order to improve both the infrastructure and the efficiency in the functionality of electronic trading systems, MexDer released in May a project in which the supplier of this system was replaced by one of the best in the market. The MexFix Trading System is an indispensable component for the electronic trading of derivatives since it sends orders generated by any electronic financial system that uses a FIX protocol. Therefore, with this update, latency in the order flow and message response is reduced, and it offers high availability.

## 2. Automation of the Certification of Clients' Trading Systems

In February, MexDer incorporated a tool that allows clients' trading systems to obtain evaluation and approval of the minimum requirements that their platforms must contain, thus guaranteeing their correct operation.

## 3. Replacement of trading screens

Although in 2017 the trading screens were migrated to a new supplier, in 2018 technological improvements in the software kept being implemented in order to adapt them to MexDer's operative functionalities.

### **Products**

During 2018 we worked on the analysis and development of new products such as Forward Starting Swap, Electricity Futures, Futures on Inflation and Cross Currency Swap; the first two are in process of approval by the authorities and we estimate that they will be listed in 2019.

### Local and International Promotion

In this year an important promotion effort was carried out for derivatives with foreign clients; one of the achievements was the increase in Brazilian clients' transactions in the IPC Future, which today represent 40% of the operation of this product. On the other hand, in the first guarter of 2018 three new brokers and two AFORES began operations.

During 2018 MexDer had a presence in relevant financial market events. As every year, we attended the annual FIA Boca Raton conference in March. Later, in April, MexDer participated in the panel of the Profit and Loss event in Mexico City. For the last guarter of the year, participation was maintained with a stand at the annual Futures and Options FIA Expo in Chicago in October. In addition, MexDer actively participated in events related to the Electricity Market.

In 2019, the promotion will continue to be reinforced in conjunction with the Clearing Members, and we will continue to offer the final clients the advantages of trading capital and derivatives as a strategy in their portfolios.

# **REGISTRATION OF SECURITIES**

## ▲LIST OF VARIABLE **EQUITY INSTRUMENTS**

On December 31, 2018, there were 140 Mexican issuers of shares and 5 foreign issuers listed on the Exchange (not including the securities listed in the Global Market). Additionally, 590 investment funds were listed. Approximately 14.29% of the companies listed had a capitalization value of more than \$99 thousand million; 24.28% had a market capitalization value of less than \$99 thousand million and greater than \$20 thousand million, while 61.43% had a capitalization value of less than \$20 thousand million. The total capitalization value of national issuers was equivalent to 40.64% of the GDP. On the other hand, a total of 1,779 foreign instruments were listed in the Global Market of the Exchange.

On December 31, 2018, the capitalization value of the shares that form part of the IPC represented 80. 8% of the total capitalization value of the stock market.

In addition, at the closing of 2018 there were 15 Infrastructure and Real Estate Trusts (FIBRAS) listed on the Exchange with a capitalization value of \$236,689 million pesos, a Mortgage Trust with a capitalization value of \$5,509 million and 4 Energy and Infrastructure Trust with a capitalization value of \$78,489 million.

#### Shares listed on BMV\*

National shares	2015	2016	2017	2018
Mexican Companies	136	137	141	140
Series <sup>(1)</sup>	187	186	190	194
Market Capitalization <sup>(2)</sup>	6,954	7,627	8,206	7,564

<sup>(1)</sup> For series of different national shares

(Not including the Exchange's Global Market) On December 31,



The number of Mexican issuers listed with shares on the Exchange at the end of 2018 was 140. The total market capitalization of national issuers at the end of 2018 is \$7.564 million million pesos.

<sup>(2)</sup> In thousands of millions of pesos

The types of companies that include insurance and surety companies, industrial, commercial and service companies; brokerage firms; banking shares; SAPIBS.

In 2018, the second Special Purpose Acquisition Company (SPAC) was placed on the market through a Global Primary Public Offering of Shares and Optional Securities by Promecap Acquisition Company, S.A.B. de C.V. (PMCPAC) in the amount of \$5,578 million.

Also, the Sherpa Capital TRAC was placed with the code QVGMEX 18 for an issuance amount of \$1 million pesos.

The 14 placements of Development Capital Certificates (CKDs) at the end of 2018 for a total amount of \$7,477 million pesos are noteworthy. These CKDs are:

- CARZACK 18, Go Proyectos, S.A. de C.V.
- AMICK 18, Amistad Global Development, S.A. de C.V.
- TUCK 18, Tuckd, S. C.
- NGPE2CK 17, Northgate México PE II, S. de R.L. DE C.V.\*
- AINDACK 18, Ainda Energía & Infraestructura, S.A.P.I. de C.V.
- RRGCK 18, Grupo Renovables Agrícolas, S. de R.L. de C.V.
- NXXMFCK 18, Nexxus Capital Strategic | General Partner, S.A. de C.V.
- FFBANCK 18, PMIC Latam, S.A.P.I. de C.V.
- INMOBCK 18, Inmobilia Management, S.A.P.I. de C.V.
- **GRANDCK 18,** Be Grand CKD17, S.A. de C.V.
- **DELTACK 18,** Administradora CKDELTA, S.A. de C.V.
- ODOCK 18, O'Donell Capital Management, S. de R.L. de C.V.
- ALLVPCK 18, Allvp III GP, S.A.P.I. de C.V.
- VMZCK 17, Vector empresas, S.A. de C.V.\*
- \* Reopening of issuances listed in 2017.

As a result of a change in regulation, the placements of Certificates of Investment Projects (CERPIS) were reactivated this year, with 18 placements for an amount of \$11,929 million pesos. The CERPIS are the following:

- GDISPI 18, GD Structure S.C.
- **BLKCPI 18,** Blackrock México Infraestructura III, S. de R.L. de C.V. (2 emisiones)
- **EXICPI 18,** México Infrastructure Partners América Latina, S.A.P.I. de C.V.
- KKR2PI 18D, KKR de México, S.C.
- **LEXIIPI 18D,** Administradora Lexington Partners, S.C.
- **MOTAPI 18,** Administradora para el Desarrollo-Mem, S.A. de C.V.
- **LEXPI 18D.** Administradora Lexington Partners, S.C.
- KKRPI, KKR de México, S.C. (Series 18D y 18-2D)
- BLKAGPI 18D, Blackrock México Manager II, S. de R.L. de C.V
- GAPI, General Atlantic CERPI Manager, S. de R.L. de C.V. (Series 18-D y 18-2D)
- **BXMXPI,** BX México Advisors, S.A. de C.V. (Series 18D, 18-2D y 18-3D)
- AA2CPI 18, Activos Alternativos, S. de R.L. de C.V
- PGGVPI 18D, Partners Group Cayman Management IV Limited

By December 31, 2018, 3 issues of FIBRAS E were listed for an amount of \$52,523 million pesos:

- CFECapital, S. de R.L. de C.V. (FCFE).
- Grupo Aeroportuario de la Ciudad de México, S.A. de C.V. (FNAIM).
- · Administrador Fibraestructura, S.A.P.I. de C.V. (INFRAEX).

During 2018 there were 3 placements of FIBRAS with a placed amount of \$10,255 million pesos:

- Upsite México, S.A.P.I. de C.V., (FIBRAUP).
- Grupo Nagoin, S.A. de C.V., (EDUCA).
- Laura Reneé Diez Barroso Azcárraga, José Carlos Laviada Ocejo, Jaime Isita Ortega, Diego Isita Portilla, WOOLLEYENTERPRISESMX, LLC y Tanner Storage Mexico LLC., (STORAGE).

In 2018 there were 265 placements of optional securities for an amount of \$18,898 million. which represents an increase of 7.29% in the number of issuances and an increase of 17.55% in the amount placed, compared to 2017. BBVA Bancomer and CITI were the most active brokerage firms, since they made 152 and 94 placements, respectively. Among the most representative underlying assets are Netflix Inc., Amazon. Com Inc., Facebook Inc., IShares Core Euro Stoxx 50 Ucits ETF EUR (Dist) and SPDR S & P500 ETF Trust.

Additionally, 26 investment funds were listed, out of which 21 correspond to variable equity funds and 5 to funds in debt instruments.

# **▲** LIST OF **DEBT INSTRUMENTS**

By December 31, 2018, 213 Mexican issuers had debt instruments listed in the Exchange (not including issuers of securities listed in the Exchange's Global Market). Although mainly stock certificates issued by corporate issuers, states, municipalities and trusts are listed in connection with securitizations, the following debt instruments are also listed:

- Short-term debt: short-term certificates are listed, which have a maturity of less than one year.
- Long-term debt: medium-term certificates, real estate participation certificates, convertible instruments and certificates of debt participation are listed.

#### In 2018, regarding short-term debt programs:

- The amount of lines in effect at the end of the year was \$473,300 million, 8.37% higher than the previous year.
- There were 956 issuances of short-term stock certificates for an amount of \$177.068 million.
- 11 programs were authorized (dual and short-term), among which the following stand out: the dual programs established by the Special Fund for Agricultural Financing (FEFA) for an amount of \$100,000 million, Daimler Mexico (DAIMLER) for \$30,000 million and Volkswagen Leasing (VWLEASE) for \$20,000 million.

### In 2018, regarding long-term debt programs:

- There were 11 new debt issuers, out of which 8 have as main activity the provision of financial services.
- There were 133 long-term debt issuances for \$265,298 million, the stock certificates represent 96.34% of the total issued.
- 19 programs were authorized, including: the programs established by Banco Mercantil del Norte (BANORTE) for an amount of \$50,000 million and Scotiabank Inverlat (SCOTIAB) for \$25,000 million.

#### Of the 2018 issuances the following stand out:

- The Issuers with the highest amount placed throughout the year were CI Titulación de Activos (MXPUCB) with \$15,383 million, CFE for \$15,290 million, Grupo LALA for \$13,000 million and FOVISSSTE with \$12,000 million.
- BBVA Bancomer and FEFA placed their first Green Bond for \$3,500 million and \$2,500 million, respectively, while VINTE placed its first Sustainable Bond for \$800 million.
- BBVA Bancomer led the placement of structured bank bonds with a total amount of \$3,702 million through 3 issuances.

#### ► Amount in circulation of Stock Certificates in BMV

Year ended December 31,	2016		2016 2017		20	18
ISSUER OF STOCK CERTIFICATES	Issuances	Value <sup>(1)</sup>	Issuances	Value <sup>(1)</sup>	Issuances	Value <sup>(1)</sup>
Mexican local and municipal governments	33	91.7	29	86.8	25	75.3
Entities of the Mexican federal government	117	492.0	117	538.1	117	568.7
Private sector companies	276	508.5	316	588.2	324	635.7
Financial institutions	61	169.7	65	168.7	52	157.7
Backed by mortgages	65	22.8	65	21.0	61	19.2
Segregable Certificates	3	5	3	3.3	1	2
Total	555	\$1,289.7	595	\$1,406.1	580	\$1,458.6

<sup>\*</sup> Thousands of millions of Pesos



# **▲ INTERNATIONAL QUOTATION SYSTEM**

- At the end of December, 2018, 430 foreign securities were listed, out of which 163 are Companies and 267 ETFs.
- The list of shares of Nintendo, Mitsubishi, Burberry, Puma, Michael Kors, Santander Bank, Carter's, Nikon, Panasonic, Toyota and Meliá Hotels stand out, as well as the ETF's of new Asset Managers in the SIC such as: DeltaShares, J.P. Morgan, Exchange Traded Concepts, KraneShares, Amundi and Ossiam.

# **INTEGRAL SERVICES** TO ISSUERS



#### a. Advisory

The Issuer Service Center (CAE) continues to be the point of contact for all the companies listed with BMV Group. During 2018, through the advisory service provided continuously from 7 a.m. to 7:00 p.m., 4,050 calls were addressed in which doubts and requests were answered to the directors of the issuers on regulatory, operative and financial topics.

It is important to mention that, in order to keep the issuers updated, events focused on training on changes in the applicable regulations announced by the stock market authorities were carried out. In addition, in-person, online and group trainings were given with specific topics on the obligations of the issuers. The previous activities allowed us to achieve that the issuers complied in a timely manner with their obligations before the investing public.

#### b. Promotion

stand out:

During 2018, the Promotion of Issuers Management continued to strengthen the links with executives of the issuers that participate in the Stock Market, achieving more than 350 visits that helped to know first-hand the concerns and needs of our clients, to be able to identify new opportunities in the market and at the same time to share with the executives the options offered by the various instruments available in the Mexican Exchange.

As a result of the meetings with issuers, events were held within the facilities of BMV, such as talks to employees and Board meetings of the issuers, which have allowed to permeate within the organizations the importance of working in a public company. In addition, a close relationship has been established with the BMV School, where we are able to offer another option for training so that issuers can provide quality courses to their employees.

On the other hand, through Road Shows, "campanazos" ceremonies and days with investors it has been possible to provide visibility alternatives for our issuers, linking them with media and analysts of financial institutions, having a much more comprehensive value added service that strengthens the institutional image.

As every year since 2009, we held the Ninth Forum of Issuers, where we achieved one more time record attendance in number of issuers and participants, where great personalities such as Dr. Jaime Serra Puche and Leo Zuckerman participated as speakers, and where large-scale issues were addressed such as "Blockchain, Cryptocurrency, Fintech Law: What is its impact on the markets?", among others. This Forum has positioned itself as the meeting point for the main executives and officials of the stock market.

During 2018, the approach with the Mexican business community was also consolidated through the Promotion of New Issuers Management, which although it is an area that has been working for several years, during the last periods it has collaborated very closely with Consulting Firms, Rating Agencies, Lawyers, Brokerage Firms and other participants involved in the preparation process for a company to carry out a placement, not only contemplating a stock placement, but any financing alternative in the Stock Market. This resulted in 8 of the new names participating in the Stock Market (Firmacar, Be Grand, Banco Base, Círculo K, Grupo Hema, Hir Casa, Vanrenta and Fibra Educa) receiving timely support from the promotion area prior to their placement in the Mexican Exchange.

In addition, together with associations and institutes, 14 cities were visited in the country (Chihuahua, Guadalajara, Querétaro, León, Culiacán, San Luis Potosí, Monterrey, Colima,



Mérida, Saltillo, Mazatlán, Uruapan, Veracruz, Los Mochis) where several statistics and success stories were presented, looking for the entrepreneur to break some paradigms that exist around the Stock Market, thus achieving an important presence with the main representatives of the business sector of each region and resulting in the first company in Mérida participating in the Variable Equity Market with a Certificate of Development Capital (INMOBCK), which shows that the work and information that the promotion area has distributed over time creates awareness among entrepreneurs and encourages them to seek the path to accessing new financing options.

# TECHNOLOGY





During 2018 we carried out the renovation of the technological platforms. With the maturation of the processes that allow us to maintain operative excellence we make the delivery and availability of our services more efficient.

During this year we focused on the following initiatives:

**Network Operation Center (NOC).** A project was initiated to centralize the services of supervision, monitoring and maintenance of the Technological Infrastructure (Telecommunications, Servers, Database, Applications, Network Traffic, etc.), providing BMV Group with tools and methodologies to manage IT events. The discovery phase is currently in execution.

**Benefits for the group:** Service Improvement, Infrastructure Monitoring, Risk Reduction.

SIC Automation Phase I & Phase II. In March, the messaging of the SIC's corporate shares was sent to the Exchanges through a new financial messaging platform, using international communication standards such as ISO 20022. With the new SWIFT platform, for Phase II, it seeks to modernize the operation of the international area with a more flexible messaging solution of specialized business flows, thus allowing an agile implementation of initiatives and solutions with higher levels of performance and availability.

Financial result: Higher Income.

**Benefits for the group:** Automation, Risk Reduction, Service Improvement.

**SPEI Reconnection.** The continuity of the operation was supported by achieving a reconnection with the SPEI from the Securities Settlement System (DALI) to process cash transfers. DALI is considered a high value payment system by Banxico. The reconnection required to comply with Banxico's guidelines for infrastructure, applications and operations in order to have a connection in real time, greater security, updated software and elimination of the manual operation risk with the contingent scheme (COAS).

**Benefits for the group:** Compliance, Service Improvement, Risk Reduction, Security Increase.

**Network Encryption.** Financial links were strengthened in terms of information security. Links from Banxico and the Dorsal Network were encrypted.

**Benefits for the group:** Compliance, Greater Security.

**Connection between Exchanges.** It was possible to connect another Exchange with BMV Group. Adjustments were made in information systems and in the telecommunications network. As an added value, BMV generated a unique information feed where clients can consume information from the Exchanges and products were created to compare the operative performance between Exchanges in real time.

**Benefits for the group:** Regulatory changes

**RINO 2018.1.** Changes were implemented to have more operational alternatives in capital market products, such as: block transactions, market bids, short sales optimization, cross transactions and modification in the trading with global market securities.

**Benefits for the group:** Compliance, Risk Reduction.

**Internal Reorganization.** Attention to the Technological requirements of the Issuers' and Information's and Valmer's businesses was reorganized internally under a single Software Development Directorate.

**Benefits for the group:** Image Improvement, Competitive Differentiator

**ISO 20000 Re-certification.** The Service Management System was continued by maintaining the ISO 20000 Certification in three of the services provided by BMV Group to its clients. The certification was endorsed by the NYSE certifying agency in November.

**Benefits for the group:** Image Improvement, Competitive Differentiator

**Derivatives.** Several releases were made to include new functionality including new FIX Gateway to achieve technology homologation with capitals and with a modern specification.

**Benefits for the group:** Technological Update, Automation.

**Monet Phase II.** Block operations were implemented.

**Benefits for the group:** Transactions Improvement.

# **DEPOSIT, CLEARING AND SETTLEMENT**



S.D. Indeval, Asigna and CCV provide the services of deposit, custody, clearing and settlement for the transactions that are carried out through BMV Group and in over-the-counter markets. Additionally, Asigna and CCV guarantee the fulfillment of such transactions.

# ▲ SECURITIES CENTRAL COUNTERPARTY (CCV)

In CCV, in accordance with the provisions of the Stock Market Law, we have as our main function to become a debtor and reciprocal creditor (novation) of the purchase and sale transactions in the stock market. Therefore, we provide transactions management services, guarantee requirements and subsequent clearing and settlement, operating in a safe and efficient manner for the market and its Agents. The most relevant aspects and results of 2018 are described helow.

#### **Operative Activity**

The number of transactions traded in BMV Group and cleared/settled in the Securities Central Counterparty registered an increase in 2018 compared to the previous year, closing with 95.70 million transactions, while the total amount agreed was 4.14 million million pesos, 10% higher than the 3.77 million million traded in 2017.

The average amount traded for each transaction during 2018 was \$43 thousand pesos.

#### **Service Levels**

Given the advantages of measuring Indeval's service levels, we decided to incorporate this practice for the Securities Central Counterparty.

That is why, as of 2016, availability levels were determined by grouping them into two service lines: Operation and Settlement services and Risk Management and Guarantee services, for which we obtained an average accumulated availability of 99.06.

#### Requirements and Value of Guarantee Funds

The requirement of guarantees that CCV asked its agents in order to novate transactions stood at 360 million on average daily, which represents an increase of 13%. As in previous years, we maintained in the Contribution and Clearing funds, pillars of CCV's Financial Safeguards network, almost 9.8 times the minimum requirement of guarantees, with a monthly average of more than 3,319 million pesos.

On a daily average, in the Central Counterparty we invested the liquid guarantees of the agents for an amount of 3,497 million pesos, obtaining a yield of 7.59%.

#### **Transactions in Arrears**

BMV Group's Securities Central Counterparty continues to be one of the counterparties with the lowest number of defaults, compared to other counterparties in the world, with the implicit benefit that this brings to investors in the Mexican market. In 2018 we had a decrease of 34.83% for defaults in the delivery of securities, caused by the delay of its agents. The observed percentage of transactions in arrears in the year was only 1.65% of the total amount traded on the Mexican Exchange, with a decrease of 40.70% percentage points compared to 2017.

In order to contain the defaults for agents' delivery of securities, in each trading session CCV borrows securities from 2 institutions that operate in the market. In 2018 we managed to stop defaults by taking 2.388 loans with an accumulated amount of \$14.649 million pesos, presenting a decrease of 42.19% compared to 2017.

## **Profitability**

Regarding profitability, the Securities Central Counterparty closed 2018 with an EBITDA of 66.6% with respect to income, which represents a decrease of 1.9%, compared to 68.5% in 2017.

## **Technological Renovation**

Development of complementary methodologies in the New Risk Calculation Engine (SAS), for compliance with the PFMIs.

In June, 2017, Phase I of the new Risk Calculation Engine, developed by the SAS Institute for CCV<sup>1</sup>, was put into operation.

In 2018, the implementation of Phase II was completed, consisting of the development of the calculation methodology of the Clearing Fund to incorporate extreme scenarios and thus, reinforce the Risk System, in accordance with the requirements of the PFMIs.

(1) SAS Institute is a leading company in statistical calculation software, with more than 40 years of experience and 24 years in Mexico, annual revenues of 3.1 Billion USD, investing 23% of its income in development and research, with presence in 147 countries, a customer loyalty rate of 92% and with almost 14,000 employees worldwide.

#### The added value of the SAS Engine for the Participants is the following:

- More robust methodologies are enabled with the incorporation of liquidity risk components, additional guarantees for unusual risk levels, measurement of risk of concentration of positions, etc.
- The monitoring and the novation<sup>(2)</sup> process are more agile, the calculation cycles are reduced in up to 5 minutes or less, giving greater certainty to the market.
- There is an increase in operative efficiency by reducing processing time; for example, the closing process that previously took 1.5 hours now takes 10 minutes on average. The intraday process used to take 8 minutes, now it takes less than a minute.
- There is more detail on the risk structure, since the risk per position is easily broken down, thus allowing the identification and mitigation of those positions with greater risk. This allows Agents to be more protected.

### Benefits of the SAS Engine for CCV:

- Although SAS Institute developed the solution for CCV from the SAS calculation software, CCV owns the codes developed especially for this project.
- This Engine gives sustainability to CCV's business as it is a key element for the compliance with the PFMIs and the new business needs
- Facilitates risk monitoring and mitigation for CCV by being an efficient Engine in terms of processing time, frequency, calculation capacity and integration with the New SCO.
- It allows the integral management of data: portfolios, prices, scenarios, parameters.
- Provides flexibility in risk modeling, statistical analysis and custom reports.
- CCV has 24/7 service.
- The calculation process is automated.
- It has high availability replication.
- It has replication in DRP.
- Runs on a powerful and modern platform.

<sup>(2)</sup> It is the process by which CCV becomes a debtor and reciprocal creditor of the transactions it receives from the Exchanges.

- It can process transactions from multiple Exchanges.
- Places CCV at a better level of competence.

### New Transactions Clearing System (SCO)

In November, CCV concluded the totality of the applications in the implementation of the High Availability (HA) scheme.

#### Connection with Exchanges

On July 25, 2018, the new exchange went into operation, which adhered as one more client of the Securities Central Counterparty, connecting to the FIX Communication Protocol, established by it.

### **Compliance with the Principles for Financial Market Infrastructures (PFMIs)**

In April, 2012, CPSS-IOSCO issued the Principles for Financial Market Infrastructures (PFMI'S) in order to increase the security and efficiency in payments, settlement, clearing, recording of transactions, but more broadly to limit systemic risk and promote transparency and financial stability; 22 of these principles apply directly to central counterparties. Among the most relevant are those related to: credit risk, margins, collateral and liquidity risk.

In 2018, the Work Plan for compliance with the PFMIs was fulfilled, which included, among others:

- Sending to the Authorities the updating of evaluation and dissemination documents of Annex A and B, Statistical Annex and Evaluation per key consideration.
- Sending to the Authorities the Methodology to determine the Clearing Fund and the Contributions Fund. which included:
  - Use of the Reserve Fund.
  - Auctions and Buy-In.
  - Safeguards Network.
  - Change in the composition of the Clearing Fund.
  - Anticipated and mandatory transfers.
- Submission of proposed amendments to the Regulations and Manual.
- Sending the final version of the methodology to determine the Contributions Fund.
- Submission to Authorities of the 2019 Work Plan.

## **Credit Rating**

In August, 2018, the Securities Central Counterparty (CCV) requested an opinion on its credit rating from the rating agency "Fitch Raitings". In 14 years of operation, it is the first time that CCV is submitted to an assessment by a rating agency.

The following table details the credit rating granted in 2018 to CCV:

## **Summary of the credit rating 2018**

Fitch Ratings • Global Scale BBB+ / Estable

• National Scale: AAA(mex) / Estable



# **ASIGNA, CLEARING AND SETTLEMENT**

### **Operative Activity**

During 2018 we received 18.4 million derivatives contracts for registration, clearing, market valuation, marginalization, collateralization and settlement, which compared to the 21.8 million contracts received in 2017, represent a decrease of 16% in total.

The traded amount of the contracts operated in 2018 reached the amount of \$2.73 million million pesos, which compared to \$3.16 million million of the previous year, also means a decrease of 13.6%.

On the other hand, during the same year, we recorded in Asigna an average daily open interest of 11.8 million, which compared to the 10 million contracts opened on average in 2017 represents an increase of 15%.

	Open Interest				
	Futures	Options	Swaps	Total	
Average 2018	807,632	94,068	10,902,491	11,804,191	
Average 2017	1,377,351	69,377	8,811,901	10,258,581	
Percentage Variation	(41)	36	24	15	

Figures in millions.

During 2018, the number of transactions in Swap Contracts increased by 35% compared to the previous year, while the volume traded decreased by 7%; on the other hand, there was an increase in the volume traded in Option contracts of 17%, while Futures contracts had a decrease of 26%.

		Transactio	ns		Volume			Amount	
Contract	2017	2018	Var	2017	2018	Var	2017	2018	Var
Futures	300,468	300,468	7%	10,613,400	7,841,451	(26%)	2,171,850,207,007	1,727,953,289,407	(20%)
Options	3,454	3,454	(30%)	417,886	490,060	17%	513,595,399	587,711,438	14%
Swaps	784	784	35%	10,777,301	10,032,859	(7%)	1,077,730,100,000	1,003,285,900,000	(7%)
Total	304,706	304,706	7%	21,808,587	18,364,370	(16%)	3,250,093,902,406	2,731,826,900,845	(16%)

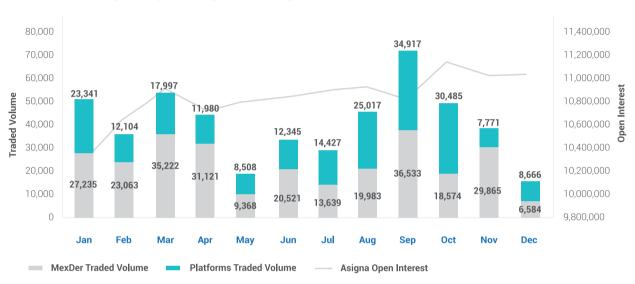
Among the most relevant of 2018 regarding Derivatives contracts is the Open Interest of the Exchange Contracts (Swaps) that reached a maximum figure of 11.4 million at the end of the last guarter of the year, mainly due to the fact that the trading platforms have increased the trading of these contracts sent to the Clearing House.

It is important to highlight the increase in the Open Interest daily average of option contracts on Shares, which increased by 36% in comparison with the previous year; on the other hand, during 2018 we observed important falls in the clearing of the Futures in general, falling 41% in the daily average of open contracts.

## **Exchange Contracts** (Swaps)

The increase in the transactions of Exchange Contracts in the Derivatives Exchange (MexDer), as well as in the Trading Platforms, meant a traded amount of \$1,003 million million pesos in 2018 alone.

## ► Average Daily Trading of Exchange Contracts



#### ► Average Daily Notional Amount

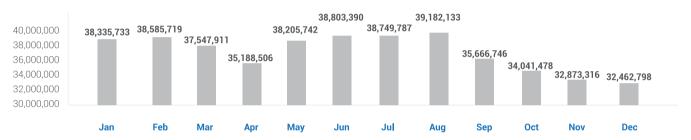


During 2018, joint efforts between MexDer and the Clearing House continued in order to list new products in coordination with the Authorities and the Clearing Members.

#### Margins (AIMs)

In this year we had a decrease of 8% in the average balance of the AIMs, compared to the one in 2017.

#### ▶ Average Balance



Thousands of Pesos

#### **Funds Administration**

At the end of the year, the total resources we administered in Asigna were \$33,745 million pesos, composed of \$14,144 million of the Margins Fund in cash, \$17,102 million of Margins in Securities and \$2,243 million of the Clearing Fund, while the Minimum Equity amounted to \$256 million pesos.

The weighted yield of Asigna's Contribution and Clearing Funds was 7.69%, only 1 basis point lower than the Government Weighted Average Funding Rate (TPPFG) published by the Bank of Mexico (Central Bank). It should be mentioned again that the policy of risk diversification, although the weighted yield paid by the funds has been lowered, allows the investment to be made in accordance with what is recommended by the applicable Principles for Financial Market Infrastructures.

#### **Daily Market Settlement**

The daily settlement of the obligations was carried out without major setbacks and within the hours established in the applicable regulations; during 2018 more than 200 thousand million pesos were settled in the daily settlement.

The settlements with physical delivery are detailed below:

#### Maturity Settlement with delivery of the underlying asset.

#### Derivatives Contracts on the United States Dollar

6.39 million derivatives contracts were cleared on the peso/dollar exchange rate, out of which we settled in kind more than 1,150 thousand contracts, that is, 18% of all the contracts traded. The settlement generated the delivery of a total of 11,505 million dollars in the United States of America.

#### Derivatives Contracts on Share Series.

We cleared 367.9 thousand futures and options contracts on share series. Of the total of contracts that we received for their clearing and settlement, 69 thousand were settled in kind. The settlement generated the delivery of almost 7 million titles and almost \$190 million pesos.

#### Derivatives Contracts on Bonds.

We cleared 534 thousand Futures Contracts related to Bonds at different terms (DC24, JN22, JN27, NV42, NV47, MR26 and MY31). Out of these cleared contracts, 85 thousand were settled by physical delivery, that is, 15.9% of all the contracts traded. The value of these settlements was over \$9 thousand million pesos and represented the delivery in kind of more than 85 million Bonds.

The following table shows the open interest in derivatives contracts and the amounts of Asigna's Contribution Fund and Clearing Fund for the periods indicated.

## Open Contracts and Financial Resources of Asigna\*

	2015	2016	2017	2018
Open Contracts*	2,124,553	7,567,816	11,413,804	11,523,887
Required Contributions Fund*	15,508	39,546	34,888	24,883
Clearing Fund*	1,345	4,312	3,099	2,242

<sup>\*</sup>By December 31

#### Risk Management in Asigna, Clearing and Settlement

In line with the international standards established in the "Applicable Principles for Financial Market Infrastructures", work was carried out on the implementation of risk methodologies, which were incorporated into the Comprehensive Risk Management Framework, with the approval of Asigna's Admission and Risk Management Subcommittee and Technical Committee. These risk methodologies had an impact on daily processes, optimizing the Clearing House's risk management.

<sup>\*</sup>Millions of pesos

<sup>\*</sup>Millions of pesos

### **Safety Net**

Asigna has established a safety net to deal with the default in payment by one or more Clearing Memhers

The resources that are deposited in Asigna are used to constitute the funds that make up the Safety Net. During this year, the maximum value observed of resources that are part of Asigna's Safety Net is the amount of \$41,975 million pesos. As part of Asigna's preventive mechanisms, on two occasions during the year the Clearing House's preventive mechanisms were activated.

Additionally, the integral simulation of the Safety Net was carried out, in which all the Clearing Members, the execution commissioners, MexDer and all Asigna's areas participated. The objective was to prove the sufficiency of resources of the Safety Net under the premise of noncompliance in the delivery of the underlying assets covered by the Derivatives Contract. As a result of the simulations, the Clearing House submits each of the processes, sub-processes and procedures to continuous improvement.

In terms of Operational Risk Management, Asigna has as a practice to manage operational risks and work in a control environment, which has allowed it to streamline some of the operative processes and make decisions to mitigate relevant risks and incidents. This year we managed to continue with the management established in the Comprehensive Operational Risk Framework (MIRO) through the monitoring of incidents and analysis of materialized risks, monitoring with indicators of operational risk, implementation of dashboards and the report to Senior Management and Collegiate Bodies.

#### Marginalization Model

Asigna uses a Marginalization Model that allows to determine the margin requirements at portfolio level. The portfolios can be composed of Futures, Options and Swaps Contracts, that is, the Marginalization Model allows to clear the requirements between Contracts that are associated to the same underlying asset or that have a high correlation between them.

The Marginalization Model determines four different Margins (AIM) for the Contracts that make up the portfolios:

- 1. Premium AIM
- 2. Risk AIM
- 3. Opposite Position AIM or Spread
- 4. Delivery Position AIM

Also, the margin requirements of the Marginalization Model are designed to cover market variations during different periods, contemplating periods of high volatility for the calculation.

The resources mentioned below can be used by the Clearing Members to cover the margin requirements:

- 1. Cash
- 2. US Dollar
- 3. Government securities (national and US)
- 4. Securities issued by development banking institutions (backed by the federal government)
- **5.** Stock certificates (with special characteristics)

It is worth mentioning that all deposits other than cash are subject to a discount on the price (Haircut) in order to have greater coverage against possible movements in the market over the value of these assets.

#### Compliance with the Principles applicable to Financial Market Infrastructures (PFMIs).

Given the importance of adopting international recommendations throughout 2014, 2015 and 2016, Asigna worked jointly with the competent Authorities -Bank of Mexico and the National Banking and Securities Commission- to validate compliance with the Principles.

On December 17, 2018, the Work Plan of PFMIs was presented to the Authorities.

Some of the most relevant activities carried out during 2018 were the following:

- Adaptation and incorporation of the global practices of policies and procedures in Asigna's Operating Manual and Internal Regulations.
- · Adjustments to the Risk Management Manual and definition of Risk Tolerance Levels and Limits for the prevention and monitoring of Credit Risk.
- Work was started with all the areas for the update of the Defaults Administration Manual.
- Strengthening of Methodologies to comply with global standards in risk monitoring and management, focused on discounts in collateral for Liquidity Risk and monitoring of increase in exposure to Credit Risk due to openings or closings of Derivatives transactions.
- Strengthening of Asigna's Safety Net; holding of meetings with the Authorities in which various proposals for a new Marginalization Model and a New Clearing Fund Model were presented.
- Work began on improvements to the Liquidity Plan by implementing a Cover One Liquidity methodology.

- The Netting Agreement amendment was sent to the Authorities, which represents a fundamental component of the Ordena Settlement Plan.
- A normative reform was presented with a new in Arrears scheme incorporating Tolerance Levels and Limits for the prevention of Liquidity Risk.
- Updating and Publication of information related to compliance with principles according to the disclosure models published by CPSS-IOSCO.

#### **Credit Rating**

During 2018, the two rating agencies granted Asigna, both in national currency and in foreign currency, the following ratings:

In October, 2018, the rating agency Fitch Ratings granted Asigna the long-term "BBB +" rating in foreign and local currency and "F2" in the short term in foreign and local currency. Also, it ratified the long and short term rating on a national scale in "AAA (mex)" and "F1 + (mex)". The rating was granted with stable outlook.

In November, 2018, the rating agency Standard & Poor's granted the long-term rating on a global scale of "BBB +" and confirmed its short-term rating also on a global scale of "A-2" and confirmed its long and short-term ratings at national level of "mxAAA" and "mxA-1", the outlook for both ratings is stable.

The following table details the credit ratings granted to Asigna in 2018:

#### Summary of credit ratings 2018

**Fitch Ratings** Global Scale: BBB+ / Stable / F2

National Scale: AAA(mex) / Stable / F1+ (mex)

Standard & Poor's Global Scale: BBB+ / Estable / A-2

National Scale: mxAAA / Estable / mxA-1+

# S.D. INDEVAL

S.D. Indeval is the Central Securities Depository in Mexico, where the custody, clearing and settlement of all the securities that are traded in the Exchanges are carried out, including the securities of the Global Market or International Quotation System (SIC); as well as of the governmental, corporate and banking securities of the local and international market. We also have value added services for our direct participants, among which we can highlight: securities lending, collateral management and information services.

The most relevant aspects and results of 2018 are presented below.

#### **Securities Trading, Custody and Administration**

The Central Securities Depository in Mexico closed 2018 with a total value of assets in custody at \$24.04 million million pesos, which represents a decrease of 4.5% compared to 2017.

- In the National Division, the custody of securities decreased its value by 4.7% compared to 2017. The foregoing was mainly due to the fall in the valuation of capital market assets closing the year at \$12.5 million million pesos, 11.4% less than the previous year. On the other hand, the valuation of private debt instruments had an increase of 8.9% equivalent to 226 million million pesos and finally, custody of government instruments increased by 3.3%.
- In the International Division, the custody of securities had an increase of 1.4% compared to 2017, registering a total of \$1.01 million million pesos. 73.4% of international assets belong to the Global Market or International Quotation System (SIC). The trend shown in recent years has remained and foreign indices (ETFs) were the titles that contributed most to international custody.

The following table shows the value of the shares, fixed income instruments, government securities, bank securities and other securities in custody by Indeval.

#### Securities in Custody at Indeval\*

	2016	2017	2018
Variable Income Instruments	13,133	14,823	13,256
Fixed Income Instruments	1,663	1,811	1,856
Government Securities	7,132	7,600	7,825
Bank Securities	882	928	1,101
Total	\$22,810	\$25,162	\$24,038

<sup>\*</sup>Figures in thousands of millions of pesos Year ended on December 31, 2018

On a daily average, we settled \$4.91 million million pesos during the year, which makes us the ninth largest system in the world, with the settlement of government instruments having the most specific weight with 68.51%, cash transfers with 16.04%, followed by bank securities with 14.93% and the capital market with 0.52%.

Following up on the requests of the depositors, during 2018 801 calls for meetings were received and processed, increasing by 10% in relation to the previous year.

Regarding the management of meetings, 34,288 decrees were received and processed, 15% more than in 2017; for Patrimonial Rights payments, more than 43 million million pesos were generated and distributed among the depositors of Indeval for each type of rights.

#### **SIC Project**

One of the most significant achievements during 2018 was the consolidation of the Global Securities Market as an efficient platform to diversify international portfolios. At the end of 2018, 1,779 foreign securities were registered, out of which 923 correspond to Exchange Traded Funds (ETFs) and 856 to shares of global companies from 43 different countries. Also, the amount traded of these international securities represented more than 41.7% of the total amount of the Stock Market

In order to simplify processes, S.D. Indeval, carried out an evaluation of custody, settlement, fiscal and transactional services, deciding to reduce from 9 to only 3 suppliers. In this way, the Depository Trust & Clearing Corporation "DTCC", the deposit of US Securities through Citibank, N.A., is accessed, who is the supplier for securities of the United States and Canada and also acts as a withholding agent.

For the rest of the securities that include international debt, stocks and ETFs, the custody services were concentrated in Euroclear Bank and in BNP Paribas Securities Services. The latter also assumes the role of secondary supplier for the United States and Canada market.

The aforementioned generated greater efficiency, reduced risks and generated savings in custody costs that will be reflected in 2019, boosting the operation of this segment of the market and encouraging a greater participation of investors.

As an integral part of the SIC's redesign, the implementation of a platform was implemented to elevate the automation of the systems making them compatible with the global information standards using the ISO 20022 messages via the SWIFT network.

#### Risk Management

Indeval operates under an approach of continuous improvement of its services maintaining international standards with a consistent operative reliability, thus maintaining the trust of its Participants, which has characterized it throughout the years.

Thus, one of its main objectives is to continue with a robust risk management that includes:

- Testing of Business Continuity Plan with various contingency scenarios: from pandemics to cybersecurity
- · Continuous incident monitoring
- Risk analysis and controls
- Involvement of Senior Management and Collegiate Bodies

In turn, Indeval carries out ongoing investments focused on strengthening its technological infrastructure, guaranteeing its first-class technology and response times in line with established service levels while maintaining the stability of the Mexican financial market.

#### **Compliance with the Principles applicable to Financial Market Infrastructures (PFMIs)**

In 2018, Indeval made proposals to modify its Internal Regulations and Operating Manuals to update them in accordance with the new Provisions and included a proposal of Technology Requirements, Information Security and Operational Risk Guide for Indeval's Depositors;

Also, several actions were carried out related to the strengthening of Principle 17 (Operational Risk):

- Encryption of Financial Network and Dorsal Network
- Inclusion of a Cybersecurity scenario in Business Continuity tests
- Reinforcement of controls in DALÍ by limiting payments to third-party checkbooks via SPEI and eliminating access to the DALÍ system via the internet



# **ADDED VALUE SERVICES**

Within BMV Group there are various services and information products that we offer to Brokerage Firms, Banks, Afores, Insurance companies and other financial institutions. The sale of market information is done through BMV, MexDer, Sif Icap and Valmer, with which we commercialize pricing supplying services, financial and operational risk management as well as other financial tools.

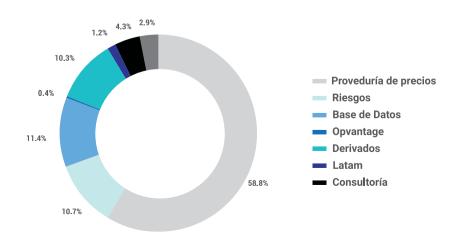
# **^** VALUACIÓN OPERATIVA Y REFERENCIAS DE MERCADO, S.A. de C.V. (VALMER)

In this year, the Price Vector remained within the most profitable products, with an increase of 6% compared to the previous year.

The quality of the service offered by Valmer has allowed clients in Mexico, Costa Rica and Panama in terms of Financial Risks. Regarding the services of special products, valuations of trusts, analysis of coverage efficiency, valuations of derivatives (implicit) and analysis of CVA/ DVA are maintained.

The strategy implemented during 2018, whose objective was the continuous improvement in the quality of the delivery of services, allowed the delivery schedules to improve considerably, thereby achieving customer satisfaction.

## ► Distribución de Ingresos 2018



#### A) Methodological Changes Valuation

Valmer has a Valuation Committee made up of three external members who are experts in financial matters; this year, the Fifty-fifth session of the Committee was held on August 15, 2018 and the Fifty-sixth session on October 15, 2018, where important topics were addressed regarding methodological changes in order to reflect current market conditions.

#### B) Methodological Changes Risks

In May and June, 2018 improvements were made to the methodologies used for the calculation of Risks for the Valrisk System in Costa Rica in the following modules: Curve Shift / Key Rate, Parametric VaR and Credit Risk

#### C) Relevant Operational Changes

### Delivery Schedules Prices Vector

Also, a strategy was implemented to ensure the continuous improvement of quality in the delivery of services through the development of personnel in the valuation area, which involves orientation towards the achievement of quality objectives and a commitment in the satisfaction of internal and external clients in the delivery of services.

As a quality control at the end of each month a report was prepared with the incidents presented to the Senior Management, in which the processes are identified, reviewed and corrected in order to make improvements in the operative processes.

#### Segmentation Prices Vector

As an improvement to the processes and schedules of delivery for our clients, on August 13 of this year the price provider made the decision to segment the Prices Vector in three phases:

### 1.-Full Prices Vector, 2.- Prices Vector of Plain Vanilla Structured Notes, 3.- Prices Vector and Structured Notes

This change is of high relevance, since it has allowed a large number of clients (those without structured notes) to start their closing processes in a shorter timeframe and to be able to homologate release times with the competition.

#### Valrisk System Update

In order to optimize resources, time and improving service levels, improvements were made in several Risk processes which were carried out manually.

#### Openpages Update

The Openpages system migrated from version 7.1 to 7.4, which adds value to the clients considering the following functionalities: Business Process Manager, Cognos Analytics 11 Integration, Life Cycles and Questionnaire Evaluations.

# D) Regulatory Changes

Valmer's Financial Risk area offers a wide range of useful services for financial entities, which cover diverse needs according to the client's profile; among the main objectives are:

- To facilitate compliance with the requirements for Financial Risk Management (market, liquidity and credit), using methodologies that are part of the market standard; as well as complementary analysis. Through the Valrisk system.
- To provide a platform that allows the integral management of Government, Risk and Compliance. This allows to understand and proactively manage the risks that can affect the business and, in turn, improve risk operative processes. Through the Open Pages system.
- To perform mathematical and financial analysis, which allow the client to make timely decisions: credit portfolios valuation, private equity valuation, calculation of aforos, etc.

In the Financial Risks area, regulatory changes were applied in Valrisk in order to reflect the current market conditions.



REGULATORY ENTITY	COMMUNICATION	NAME	DATE OF PUBLICATION (OFFICIAL JOURNAL OF THE FEDERATION)
CONSAR		General Provisions that establish the Investment Regime to which the investment companies specialized in funds for retirement must subject.	5 January, 2018
CONSAR		General Provisions in financial matters of the Savings Systems for Retirement.	26 January, 2018
CONSAR	Communication 19-20	Modifications and additions to the general rules to which the information provided by the Retirement Fund Administrators, the Retirement Fund Specialized Investment Companies, the receiving entities and the operating companies of the national SAR database, must submit to the national commission for the savings system for retirement.	15 March, 2018
CONSAR		Modifications to the General Provisions that establish the Investment Regime to which the investment companies specialized in retirement funds must subject.	18 July, 2018

## **QUALITY MANAGEMENT**

The Internal Control area has achieved great objectives within Valmer through continuous control and improvement mechanisms that have boosted the strengthening of productive processes, achieving satisfactory results, as well as a higher level of efficiency in recent months.

The management of the improvement strategies is based on quality indicators that allow the evaluation and administration of the daily processes of prices vector, curves and matrices production.



#### CUSTOMER SERVICE

The commitment with the quality of the service to the client is paramount; thus, a CRM (Customer Relationship Management) was implemented to carry out the control of our clients, through a set of practices, business strategies and technologies which allow us to manage and analyze interactions with clients, increase sales and understand the needs and expectations of each of them.

Valmer currently has the User Attention Center (CAU), a quality tool whose primary function is to provide customer service through requests generated by each user; it should be mentioned that the time spent on each of the requests has improved, achieving an efficiency of 100% for each of the areas, which has maintained a better perspective towards the client in the service and attention offered by Valmer's staff.

#### **COMPLIANCE**

The regulations applicable to the price provider according to observations or communications made by Authorities have been updated and each one has been complied with in 100% on the established dates

# ▲INFORMATION **PRODUCTS** (MARKET DATA)

During 2018, the evolution of technology for the delivery of information in real time continued, developing several initiatives aimed at the integration of new contents into the INTRA Multicast data feed as well as to migrate the way in which we distribute information of Reference Data and House-Client.

In April, 2018, we carried out the migration to webservices for sending/receiving information client-house (exclusive of brokerage firms). Also, in June, a new channel was introduced in the Multicast data feed to send the closing prices of the market of origin "PCO's" for securities listed in the SIC.

As an integral part of the migration of the Market Data distribution platform, the "Reference" Data" information that includes the quarterly reports, the relevant and corporate events was migrated to a more agile and simple distribution platform through Web Services.

Given the competition environment, BMV developed 3 complementary products that are delivered through the Multicast Feed integrating the information of the 2 exchanges currently operating in the country.

The Consolidated Feed contains information on Capital Market and Global Market Events (Last Price), Capital Market and Global Market Best Bid (Purchase/Sale) and Depth of Capital Market and Global Market Bids (Full Depth).

Additionally, given the entry into force of the "best execution" rule, during the year a family of 11 state-of-the-art analytics was developed to improve the quality of order execution and they will be available the following year through the channels in INTRA Multicast.

Finally, given the regulatory change to the General Provisions applicable to the International Quotation Systems (SIC), the information regarding the Applied Rights of National Issuers and SIC Issuers was distributed in independent files as of July; for this, 2 new formats were developed, as well as web services for the delivery of this information.

Continuing with the positioning and commercialization of information strategy at an international level through the point of presence in NY (POP), the Capital Market and Global Market Full Depth Information was integrated; as well as the Derivatives Market Information; connecting 9 new clients directly to access information in real time.

At the end of 2018, there were more than 156 users -Banks, Stockbrokers, Institutional Investors, Algorithm Operators and Vendors (redistributing agencies) of national and foreign Information. which receive information from the markets in real time and deferred. The redistribution of this information allows the Group to have a global presence through more than 24 thousand information terminals.

As for the SiBolsa App, the total of free downloads on the iOS platform during 2018 was 4,930 more compared to the end of the previous year, while on the Android platform 8,822 additional downloads were obtained, reaching together more than 100,786 downloads accumulated since its launch.

#### Indices

In February, 2018, a public consultation was held on the S&P/BMV IPC CompMX family; as a result, changes were made to the liquidity criteria and the weighting of the issuers within each of the indices.

Regarding the S&P/BMV IPC, in September, 2018, the sample was changed under the new index methodology, which included the use of the float that determines S&P based on its methodology as an international standard.

In October, we had one of the most important and significant moments for the Stock Market: the leading index in Mexico, the S&P/BMV IPC celebrated its first 40 years and remains the main reference indicator of the Mexican market.

The S&P/BMV IPC is one of the oldest investable indices in Latin America and the main indicator. of the Mexican variable equity market since 1978, the issuers that comprise it trade on average daily 80% of the local market amount.

The main characteristics of our indices is that are that they are Replicable, Invertible and Representative of the market; their main importance is that there are investment vehicles that replicate them.

Additionally, we took on the task of creating new indices such as the S&P/BMV; Market Makers is an index whose sample is composed of issuers that have an active contract as market makers and the family of Target Risk indices of the IPC whose main objective is to expose at different risk levels the IPC portfolio.

In 2018 we saw the listing of a new ETF. the "QVGMEX" linked to the S&P/BMV **Quality Value & Growth** Index At the end of the year the number of local ETFs was 17 with assets in circulation for \$72,050 million pesos, representing an increase of 31.95% over the previous year.

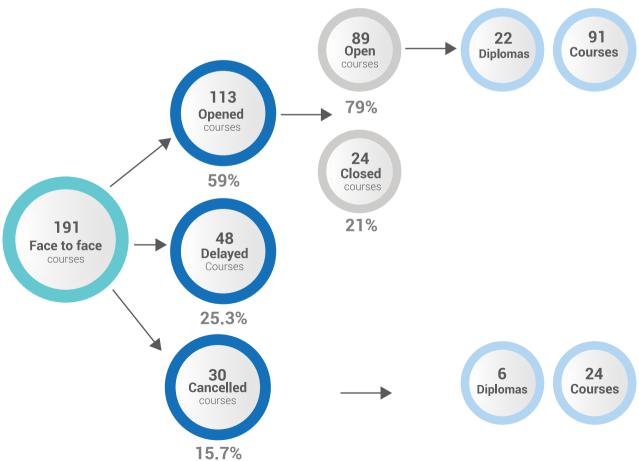


# **STOCK MARKET EDUCATION**



As it has been since 2002, we have been distinguished by a history of commitment with society for over 16 years; the Bolsa Mexicana School has always been entrusted with favoring people with currentissues that can equip them with new knowledge, skills and attitudes that allow the perfection of their skills or professionalize even more their daily actions and thus, fulfill the promise of positively transforming people.

During 2018, the "Bolsa Mexicana School" was proudly integrated into the group's Human Factor area, as a sample of congruence that what is offered to the market is also consumed by us and this makes it clear that the products offered are of a very high quality value; this is how this year more than 3278 people were trained in their different modalities of open, closed and online courses.



The most sought after courses by people during the year in all the educational offer that includes Courses, Workshops, Diplomas, Specialties and training for certifications were:



We continued incorporating new online initiatives with a proposal of 12 courses that served 207 additional participants.

There is a new division of financial education activities within the EBM where the message was taken to over 31 events individually and also collaborating with several organizations, achieving an impact on around 9178 participants.

During 2018, BMV School's extensive promotional activities, such as our active participation in the Financial Education National Week, allowed us to directly and indirectly reach a large number of people, thus achieving, on the one hand, to increase our enrollment and on the other hand, to continue contributing to spread the financial culture.

We have focused on universities and we have achieved a direct relationship through:

#### Lectures:

- Universidad Politécnica de Tecámac.
- Universidad Autónoma Metropolitana.
- Instituto Tecnológico de Estudios Superiores de Monterrey en sus sedes: Ciudad de México, Santa Fe y Querétaro.
- Universidad Panamericana campus Guadalajara y Aguascalientes.
- Universidad Tecnológica de México Campus Cuitláhuac.
- Escuela Bancaria y Comercial Campus Tlalnepantla.
- Universidad La Salle Oaxaca.
- · Universidad La Salle Colombia.

# Courses (Long-term programs during a semester):

- Universidad Nacional Autónoma de Mexico.
- Universidad de las Américas en Puebla.
- · Universidad Iberoamericana.
- Universidad Panamericana Campus Guadalajara Ciudad de Mexico (ESDAI).

#### Research Projects:

• Instituto Tecnológico de Estudios Superiores de Monterrey Campus Queretaro.

We had the opportunity to incorporate **new training programs**, such as:

- Ambassadors for stock market financing (EBM-IMEF).
- Excellence skills for the financial markets
- Project management process.
- Collaborative team formations Agile and Scrum.
- Design Thinking.
- New technological trends in financial markets.
- Forensic audit.
- Fast track modeling valuation.
- Character formation.
- Emotional intelligence.

For the second consecutive year, two summer groups for young people, 16 to 20 years old, were offered simultaneously, which was exceptionally well accepted; close to 46 young people enrolled and they experienced 3 weeks of financial topics and recreational activities, which allowed them to better assimilate the knowledge, as well as various visits to financial institutions of great prestige.

#### Growth in 2018



Courses offered 191



Number of People 3.278



**Approximate class hours** 8.800

We had a 60% growth in number of students, with respect to 2017.

## **Teaching Staff**

We made an adjustment in the school's academic body based on academic excellence, which resulted in a decrease of teaching staff of 45% compared to 2017 in a first phase; this allowed us to incorporate 41 new teachers who profess our ideals. By the end of 2018 we had a teaching staff of 96 people committed to education and willing to train people with us. Proof of that is the average evaluation of the teaching staff that reached 9.37/10 in the year.

# MARKET SURVEILLANCE AND SELF-REGULATION

# ▲ SURVEILLANCE, SELF-REGULATION AND TRANSPARENCY IN THE MARKETS.

# 1. Monitoring of Global and Domestic Markets

With the clear objective of ensuring transparency and healthy market practices, during 2018 we focused on rounding the objectives achieved in 2017 as part of the regulatory changes and the entry of the new Exchange, which led to the development, optimization and restructuring of our systems and various procedures:

- The necessary adjustments were made to carry out the monitoring of the transactions of both Exchanges, complying with the new obligations, adapting our systems to process the information received and thus, visualize it in our consultations and alerts and to take advantage of the vendors' information.
- Alerts were created in SMARTS for the detection of unusual movements in both Exchanges as established in the Regulation, which were included in the report sent to the CNBV through SITI. There was an increase of 94.90% with respect to what was alerted in 2017, considering the new alerts.

Monitoring Activities	2016	2017	2018	Var% 2017 vs 2018
SMARTS alerts (unusual transactions)	3472	3136	6,112	94.90%

• Communication continued to be strengthened with the other Managements of the Market Surveillance Directorate, which results in better monitoring, with the support of the SMARTS system for the identification of improper market behavior and better communication with both Issuers and Brokerage Firms.

This year we recorded the following comparative figures, with respect to the previous year:

a) The total of registered news in 2018 was 28,372, which corresponds to a decrease of 12.13% with respect to the levels of 2017. This is because we have search for news more efficiently, including information not properly disclosed in EMISNET that could influence the quotation price and we have considered more sources of information such as alerts from vendors, newspapers, etc.

- b) In order to maintain transparency in the market, in 2018 we received a total of 387 Relevant Events derived from the requirements made regarding price/volume movements (including the volume originated in the other Exchange) or from information published in the media and that had not been disclosed by BMV. This figure corresponds to a decrease of 65.07% with respect to 2017, considering that as of the second semester of 2017, information from the sponsoring financial entities was no longer requested, as established in the "General Provisions applicable to International Quotation Systems".
- c) The number of suspensions due to the breakdown of parameters decreased by 37.24% with respect to 2017, unlike the volatility auctions, which increased by 37.86% with respect to the previous year, as a result of a more volatile national and international environment.
- d) Through the timely detection of the suspensions that occur in the market of origin or main quotation of the SIC issuers, we registered that during the year a total of 44 suspensions were presented, which represents a decrease of 14.28% with respect to the previous year; these trading interruptions resulted in 36 suspensions in our market.
- e) As part of the regulatory changes and system modifications, there were 2 suspensions in local instruments and one in a SIC issuer originated in the other Exchange, resulting in an automatic suspension in BMV.

				<b>A</b>	
Monitoring Activities	2015	2016	2017	2018	Var % 2017 vs 2018
News registered	31,561	37,292	32,290	28,372	(12.13% <b>)</b>
Relevant events requested	1,411	2,279	1,108	387	(65.07%)
Suspensions for "breakdown of parameters"	219	268	145	91	(37.24%)
Suspensions originated in other Exchanges	N/A	N/A	N/A	3	N/A
Volatility Auctions	135	129	103	142	37.86%
Suspension or unlisting in the market of origin	32	50	42	36	(14.28%)
Number of resources allocated to activities	3	3	3	3	

#### ► Monitorings performed



#### 2. Research

With the clear mission of continuing with the improvements and/or fields of opportunity, research has focused on strengthening and promoting healthy practices in the stock market, preventing undue practices and ensuring the correct use of the Exchange's Electronic Trading System, in order to promote an efficient and equitable market, as well as to contribute to the integrity and transparency thereof, maintaining the investors' trust.

According to the research process and the conditions of the stock market during 2018, 22 atypical situations were analyzed and valued in the market, from which six investigation files were derived, so the level of analysis is more fruitful and accurate. This implied a greater scope and quality in the analysis by the Market Surveillance Directorate and the Investigation area in the detection of undue behavior in the stock market and in the effort to procure an adequate performance by the participants of the market, in accordance with sound practices and legal provisions.

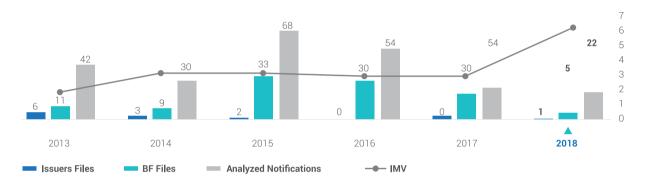
In addition to this already established process, we now also have an analysis of Alerts of the SMARTS Surveillance System on various indications of possible misconduct such as market manipulation or simulation of transactions. During 2018, 92 situations derived from these Alerts were analyzed.

This year we assisted a Brokerage Firm to make improvements in its trading desks, to strengthen its alarm management and logical filters, to reinforce internal communication processes in the

capital area to validate and authorize orders prior to sending the instruction and prevent possible capture errors; we also assisted an issuer to reinforce its internal controls for a timely disclosure of relevant information to the investing public.

The graph shows a comparison over time of the way in which the Market Surveillance Directorate has managed its research cases follow-up processes on relevant activity for the development of the market, measured through an indicator on the Impact to the Stock Market (IMV), which has been maintained at an ascending quality level.

#### Opened Files and Analyzed Notifications



## 3. Market follow-up

#### financial Corporate and information

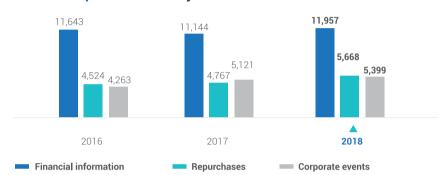
During 2018, the report of financial and corporate information increased 9.4% with respect to 2017. The documentation provided by the issuers to the Market was received and validated in order to identify any defaults, in accordance with applicable regulations.

The figures corresponding to information deliveries of 2018 and previous years are shown below:

OBLIGATIONS	2016	2017	2018
Quarterly Information	12,156	2,496	2,498
Liability Letter	1,725	1,990	2,166
Annual Report	991	678	1,032
Annual Report's Documentation	2,316	2,213	2,540
CMPC	205	195	205
Monthly Information	1,775	1,786	1,758
Liability Letter	1,775	1,786	1,758
Subtotal Financial information	10,943	11,144	11,957
Repurchase transactions	4,524	4,767	5,668
Corporate events	4,263	5,121	5,399
Total Revised Information Packages	19,730	21,032	23,024

Communications in writing for defaults and suspensions	2016	2017	2018
Suspensions	6	19	7
Repurchases	40	51	59
Corporate information	84	102	6
Financial information	14	27	37

#### ► Follow-up on the delivery of information



It is important to note that the figures presented include about 200 issuers that during the year presented a notice of extemporaneous delivery of information, making use of the extension granted by the CNBV.

# ► Communications in writing for defaults and suspensions

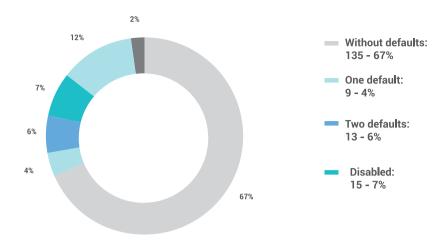


The delivery of information includes communications in writing, requirements, suspensions and referrals (correction of figures, explanatory notes, etc.) that allow the issuer to provide greater quality and clarity in the information they generate towards the investing public.

# **Listing maintenance requirements**

As a result of the annual review of compliance with maintenance requirements for 201 series of share issuers, it was detected that 22 of them failed to comply with at least one of the two obligations established by the Exchange.

# Revision Results Maintenance Requirements 2018



The 19 issuers (22 series) with defaults were required to present a corrective program in order to propose a way to correct their shortfall; in addition, the change of trading status was made to an issuer that, fulfilling the requirements, returned to continuous trading.

#### 4. Intermediaries Audit

In 2018 there were a series of changes in the Mexican stock market, as well as in the stock market's regulation, which impacted the intermediaries in their different business models, creating disruptive models among all the participants in the sector.

Therefore, the Market Surveillance Directorate has been vigilant about the evolution of the market and in particular through audits to Intermediaries, where work has been carried out jointly to identify potential risks, issuing recommendations for their mitigation.

In accordance with the planning endorsed by the Chief Executive Officer's Office and the Supervisory Committee, 21 audits to intermediaries were carried out in 2018, with a total of 67 recommendations, which were aimed at reinforcing the following points:

- Standardization of risk controls.
- Training and profiles for access to the market.
- Controls for clients with direct access (DMA).
- Undue behavior detection system.
- Monitoring of low and medium marketability issuers.
- Algorithmic trading supervision.
- Fat-Finger limits vs. trading volumes.
- Authorization and/or ratification of parameters.
- Update of Contingency Manuals.
- Compliance in the performance of tests (BCP, DRP, RTO and RPO).

# ▶ Observations and/or recommendations made to Integral Members

The aforementioned points are based on the procedures and controls of each intermediary. in order to have prevention schemes against possible operative errors, improper behavior, technological failures, etc.

In conclusion, the Market Surveillance Directorate is awaiting the transformation of the stock market through the identification of new risks, monitoring and accompaniment of intermediaries.



#### 5. Derivatives Surveillance

Regarding the surveillance of the Derivatives Market's transactions, in 2018 and through the VIGIA MexDer system, we supervised the totality of the transactions entered into with Futures and Exchange Contracts (Swaps), and the supervision of the transactions concluded through Option Contracts was started in August.

As a result of the monitoring processes, case studies related to disconnection of transactions, reallocation of positions and direct access issues, among others, were documented. It is worth mentioning that in January, 2019, various observations made by the Management regarding the holding of block transactions and direct access of the Electronic Trading System's operators will materialize in the regulation. Additionally, as an innovation issue, an analysis was made for the incorporation of new alerts in the Surveillance system, which will be subject to testing in 2019.

On the other hand, control review exercises were carried out in some areas of MexDer and Asigna; in MexDer, issues related to the Derivatives Market's Transactional Services Directorate were reviewed through the documentation of its transaction log, the functionality of the pretransactional system, timetables for sending settlement prices, assignment of codes, followup of appeals and review of those responsible for accessing their systems, among others; in Asigna, issues related to the Treasury and Settlement area were reviewed, and issues regarding the monitoring of the clearing and settlement systems, incident tracking, commissions updating, investment policy and Asigna's equity were analyzed. Additionally, on-site visits were made to review the daily settlement and maturity settlement procedures, documenting the corresponding findings. The results were reported respectively to the General Directorates.

During 2018 we addressed the requirements for the execution of audits carried out by MexDer's Compliance Officer, presenting information for a total of 4 audits to Brokers in matters of regulatory compliance, related to the participants' sufficiency of capital, follow-up to positions and transactions held. Also, in January and July we addressed the questionnaires requirement made by said Compliance Officer in subjects such as identification of persons subject to a conflict of interest, monitoring of proprietary transactions and review of cancellation of transactions. Regarding the audits carried out by Asigna's Compliance Officer, we addressed only one requirement presenting information related to issues identified by the Surveillance Management for the Clearing Member subject to review.

#### Challenges and objectives 2019

In accordance with BMV Group's institutional guidelines and addressing the lines of work approved by the Surveillance Committee, the Market Surveillance Directorate will maintain a high level of compliance with its internal obligations and with the authorities, thereby confirming its permanent commitment to the continuous improvement of its processes.

Also, we shall redouble efforts to implement efficiencies and thus increase the added value offered to the Stock Market. Additionally, and within a competitive framework, we will reinforce each of the functions we perform, so that the services generated maintain a level of excellence.

In addition, we will seek to integrate some of the procedures that are not yet automated, so that the operative risk is even lower, while increasing the efficiency of reviews and execution of tasks.



# **ASIGNA'S AND MEXDER'S**

# COMPLIANCE OFFICE

In compliance with the regulatory compliance monitoring functions of MexDer's Compliance Office and in accordance with the General Audit and Activities Plan for 2018 approved by the Board of Directors, review procedures were carried out for 41 participants, 36 through guestionnaires and 5 through the execution of audits, reaching 93.18% of the active market's participants. Additionally, as every year, we worked on the review of the controls of the Derivatives Transactional Services Directorate and the results were delivered to such Directorate and to the Audit Committee for follow-up.

In disciplinary matters, during 2018, 25 disciplinary procedures were substantiated. Derived from procedures corresponding to 2017 and 2018, the Compliance Office imposed 22 disciplinary measures consisting of reprimand, requested the imposition of 8 warnings to the Legal and Regulatory Department, a delegated area of the Board of Directors for these purposes, and sent 4 cases to the Disciplinary and Arbitration Committee for their resolution, regarding the imposition of disciplinary measures consisting of economic penalties.

Finally, during 2018, the Compliance Office validated the compliance of MexDer's Brokers regarding the delivery of monthly and annual financial information, as well as compliance with the minimum capital requirements of the obligated participants. Such information was made known to the National Banking and Securities Commission through monthly reports, as well as to the Audit Committee and MexDer's Board of Directors in each of its sessions.

During the year of this Report, Asigna, Clearing and Settlement (hereinafter "Asigna") carried out audits in order to validate compliance by the participants of the regulated derivatives market with the regulations.

In accordance with the General Audit and Activities Plan for 2018 presented to Asigna's Technical Committee, audits were performed on 3 (three) financial institutions that administer three Third-Party Position Clearing Members and two Proprietary Position Clearing Members. In addition, at the beginning of the second half of the year, compliance with various obligations was monitored by sending annual guestionnaires and requests for information. In general terms, a total of 7 (seven) observations were made and a report was issued on each of the Clearing Members and on the Broker that manages Global Accounts. Also, a review was carried out within Asigna, in conjunction with the Derivatives Surveillance Management, whose results were presented to the Chief Executive Officer's Office for its due monitoring.

In disciplinary matters, as of February 1 the reform to Asigna's Internal Regulations came into effect, by which the Technical Committee empowered the Legal and Regulatory Department to impose disciplinary measures consisting of reprimands, which were previously imposed

by the Chief Executive Officer. In this regard, 9 disciplinary proceedings were substantiated, through which the imposition of 4 disciplinary measures, consisting of economic penalties, was requested to the Disciplinary and Arbitration Subcommittee, and also resulted in 5 requests to the Legal and Regulatory Department for measures consisting of reprimand.

> Finally, during 2018, Asigna's Compliance Office validated compliance regarding the provision of monthly and annual financial information, as well as compliance with minimum equity requirements. Such information was made known to the National Banking and Securities Commission through monthly reports, as well as to the Audit Subcommittee and the Technical Committee in each of its sessions.



# **REGULATORY COMPLIANCE**

# ▲BMV GROUP'S FTHICS' AND CONDUCT CODE

BMV Group's Ethics' and Conduct Code (Ethics' Code) provides employees with the principles that guide their conduct and that they must follow in the performance of their duties, especially with clients, suppliers, shareholders, government entities, before society, the environment and in their own interaction, as well as in the operation of the business, in order to avoid inappropriate actions or actions contrary to the achievement of the Group's objectives and business, which could affect the healthy coexistence among employees.

In order to keep this document updated, in 2018 the Compliance area (Compliance) conducted the annual review of the Ethics' Code, which resulted in a proposal for amendment that was submitted to BMV's Chief Executive Officer, Audit Committee and Board of Directors for approval in April.

Also, Compliance addresses the enquiries and notices that collaborators formulate on issues related to the Ethics' Code, in order to provide them with the necessary guidance to act in accordance with the Group's compliance culture.

On the other hand, in order to permanently promote ethics and values within BMV Group, we carry out activities of dissemination of contents regarding these issues through institutional mails and through BMV Group's monthly Informative Bulletin, constantly disseminating the contents of the Ethics' Code among collaborators, including new staff, emphasizing the principles that must be observed in the daily development of activities, as well as the prevention and transparency of conflicts of interest.

In turn, all collaborators express their commitment to observe the principles of the Ethics' Code by signing a letter of understanding and adherence that is renewed every year.

In addition, in order to assess the degree of knowledge of the employees and strengthen the culture regarding the Ethics' and Conduct Code and personal data in BMV Group, Compliance conducts periodic evaluations based on the contents disseminated throughout the year. In this regard, the most representative figures of these efforts (by the end of 2018) are shown below:

# ▶ Código de Ética y Conducta del Grupo BMV

No. de colaboradores de nuevo ingreso a los cuales se les impartieron sesiones informativas.	100
No. de consultas sobre temas relacionados con el Código de Ética, Manual de Operaciones con Valores y/o temas varios.	69
No. de avisos sobre temas relacionados con el Código de Ética, Manual de Operaciones con Valores y/o temas varios.	33
No. de correos difundidos	30
No. de notas publicadas en el Boletín Informativo mensual del Grupo BMV	11
No. de evaluaciones a todos los colaboradores	2



#### TREATMENT OF PRIVILEGED INFORMATION AND CONFIDENTIAL INFORMATION

BMV Group sees adequate treatment of Privileged Information and Confidential Information as a daily and priority activity; therefore, there are mechanisms and controls based on the applicable regulation to limit the knowledge, use and disclosure of said information.

Firstly, all the information generated within BMV Group's employees' scope of functions, as well as that which is received or known by any means, is considered as Confidential Information; therefore, in accordance with the provisions of the Ethics' Code, this information is used exclusively for the purposes of the Group's companies.

On the other hand, there are control mechanisms for the treatment of Privileged Information that limit access to such information so that it is only known to employees who, due to their functions, should have access to it. Also, "designated managers" have been appointed by areas, who administer such mechanisms and periodically update their content for Compliance. This is consistent with the regulation issued by the National Banking and Securities Commission (CNBV) in the matter.

Also, in accordance with CNBV's regulations and BMV Group's Manual of Policies applicable to Transactions with Securities, transactions with securities that employees intend to carry out are subject to the prior analysis by Compliance, with the purpose of preventing the holding of transactions when Privileged Information is available. In 2018, a comprehensive review of the Manual of Transactions with Securities was carried out, concluding that there were no substantive aspects that required a modification.

Additionally and in observance of the principles contemplated in the Ethics' Code, collaborators must avoid at all times the publication (on social networks or by any other means) of data or personal opinions that involve labor or business issues that may include the disclosure of Confidential and/or Privileged Information, or information that could be harmful to the image or reputation of the company, so that external institutional communication is only carried out through the channels established in the internal regulations and by the officials authorized for that purpose.



#### PRINCIPLES AND PRACTICES AGAINST CORRUPTION AND MONEY LAUNDERING

In terms of the Ethics' Code, in BMV Group it is strictly prohibited to make or allow, directly or indirectly, improper payments or to bribe any third party or authority in an effort to influence any decision that could help the companies of the Group obtain or retain some business or undue advantage, so the collaborators refrain from participating in activities that could be understood as bribery, extortion or corruption.

In this regard, in order to prevent any misconduct, Compliance addresses and documents all the inquiries made by the collaborators, in order to guide them to make the most appropriate decision that preserves BMV Group's good image and reputation.

The Ethics' Code states that BMV Group is committed to assisting the competent authorities by providing the information that is required, in order to investigate, detect, prevent and prosecute crimes regarding transactions with resources of illegal origin and financing terrorism.

There is also a communication mechanism (Anonymous Reporting Line) available both to collaborators and third parties external to the Organization, to report any act of bribery, extortion or corruption regarding the functions or activities of any of the Group's employees.

In the event that any practice of this nature is presented, the conditions, consequences and severity of the conduct are assessed and, where appropriate, the applicable measures are adopted in terms of the Ethics' Code and the applicable regulations.

Also, with the purpose of concentrating in a single document the institutional commitments against corruption and performance of acts or transactions with resources of illicit origin (money laundering), during 2018 the Chief Executive Officer's Office approved BMV Group's Policy against Corruption and Money Laundering, which is consistent with the Ethics' Code and adopts several principles contained therein. This Policy is available on BMV Group's companies' Internet sites



#### TREATMENT AND PROTECTION OF PERSONAL DATA

In BMV Group we understand the importance of the protection of personal data; therefore, we take care, control and protect the personal data subject to treatment by the Organization's companies.

For this purpose, BMV Group's Policy for the Treatment and Protection of Personal Data establishes the frame of reference for the treatment of personal data and includes the institutional commitments necessary for the optimal development of this function.

Also, during 2018, the Criteria for the Creation and Administration of Personal Databases in possession of BMV Group were issued, in order to have uniform guidelines applicable to all areas in which there are databases with this type of information, as well as to all those collaborators who, by virtue of their activities or functions, are responsible for their creation and/or administration.

In compliance with the regulations in this matter, Compliance is the area authorized to address requests for Access, Rectification, Cancellation and Opposition (ARCO rights) formulated by the collaborators and any third party whose data is processed by the Group's companies, as well as to attend any inquiry related to the treatment and protection of personal data.



Additionally, Compliance continuously disseminates contents among BMV Group's employees, to promote the protection and due processing of personal data held by the Group's companies.



#### DOCUMENTS AND ELECTRONIC INFORMATION PROCESSING

In terms of the Ethics' Code, proper management of information and efficient use of the Organization's resources are fundamental principles that guide the conduct of all employees in the development of their activities. Similarly, it is recognized that the information generated in BMV Group is its exclusive property, constituting an intangible asset of great value and confidential nature, including all documentary, electronic, graphic, image, audio and video information, among others.

Therefore, in order to establish the reference framework for the proper treatment of electronic documents and information, during 2018 the Chief Executive Officer's Office approved the BMV Group's Policy for the Treatment of Electronic Documents and Information, in order to promote improvements in the management and organization of documents, data and information of the Group, through the establishment of uniform criteria that promote adequate control, information security, cost reduction and the use of available information technologies.

#### .... TRANSPARENCY MAILBOX (Anonymous Alert Line)

In response to the best national and international practices in matters of corporate governance and compliance, and in order to promote and reinforce the active participation of personnel through mechanisms that allow reporting illegal behavior or inappropriate behavior, such as bribery, corruption, harassment (sexual, in the work place, among others), undue work practices. discrimination, etc., the Group has an electronic tool known as "Transparency Mailbox", available

to collaborators and external users, which allows knowing and identifying opinions, proposals and concerns of interested third parties.

The Transparency Mailbox works by means of reports that are generated by clicking on the link or icon that is available on BMV Group's Internet and Intranet sites, or by telephone, calling toll-free number 01-800-288-2872 and entering the access code 888-703-0291, available 365 days a year, 24 hours a day.

Once the report is generated, the system automatically sends an electronic notice to Compliance, so that the authorized personnel can review the details of

During 2018, 25 complaints were received and were addressed in their entirety, 18 of them were anonymous and there were 7 in which the complainant identified himself voluntarily.



the matter and take the necessary steps, depending on the nature of the report. The follow-up of each topic is carried out in conjunction with the areas involved and/or interested, until the conclusion of the matter.

Also, the members of BMV Group's Audit Committee have direct access to this tool, so they can review the evolution of each report in real time; in addition, Compliance periodically submits to such body a detailed report of the anonymous reports.

# CORPORATE MANAGEMENT, INTERNAL CONTROL AND INFORMATION SECURITY

During 2018, the Project Portfolio was made up of 19 projects, out of which 8 were new initiatives approved this year by BMV Group's board and 11 projects that began in previous years and continued their execution.

The most representative projects of the year are listed below.

#### **SIC Automation**

BMV Group concluded with the integral solution, which allowed to automate SIC's information flow processes with the Swift platform, using international communication standards. Also, Indeval, assuming the figure of the sponsor, managed to capture new revenues by improving the cost structure for SIC's participants and making it more competitive in favor of the Mexican Market.

#### **Communication between Exchanges**

With the arrival of a new Exchange, BMV Group launched a project that included establishing operative agreements and implementing a technological solution that integrates a telecommunications infrastructure, construction of standardized messages and adjustments in the Group's systems for the exchange of operative information between both Exchanges.

## **Multicast**

Implementation and technological update of a flexible protocol for the Market Data service in real time, aligned with best information delivery practices worldwide. This platform was instrumental in promoting and creating new services or products for BMV Group, such as consolidated Feed, that consolidates the information generated in BMV and integrates the information generated in other Exchanges in Mexico. Additionally, Reference Data delivers reference information and finally, statistical Products allowed absorbing a new market, creating comparative statistical indicators between Exchanges and gaining participation in the information market for better execution and routing of orders.

# Cybersecurity

Implementation of various initiatives that allow BMV Group's Security Platform to be strengthened, in order to reduce risks of attacks related to Cybersecurity, a practice that has become more relevant in recent years.

#### **Alternate Operation Center**

The implementation of our Alternate Operation Center (COA) was completed, a physical space that allows us to continue with BMV Group's critical operations in the event of contingencies that prevent us from working in our Main Operation Center.

#### Risk Engine

In 2018, the new risk calculation engine for CCV was released, a stable and robust solution that meets the levels of services necessary for proper risk management. This engine is aligned with the provisions issued by various national and international Authorities.

# **DRP (Disaster Recovery Plan)**

It is a strategic and large-scale project for BMV Group, which will allow us to analyze our current DRP model and redesign our current architecture, with a technical and regulatory focus, using the best tools in the market and having specialized personnel in the field. In 2018, the first phase of the project was completed.

# **ARISK CONTROL AND CONTINUITY**

## **Risk, Control and Continuity Directorate**

The Risk, Control and Continuity Directorate reports directly to the Deputy General Directorate of Regulations and Compliance, thus guaranteeing the independence of all BMV Group's companies, thus allowing the necessary autonomy to carry out their functions.



#### Process Administration

Grupo BMV has a Process Government defined as follows:

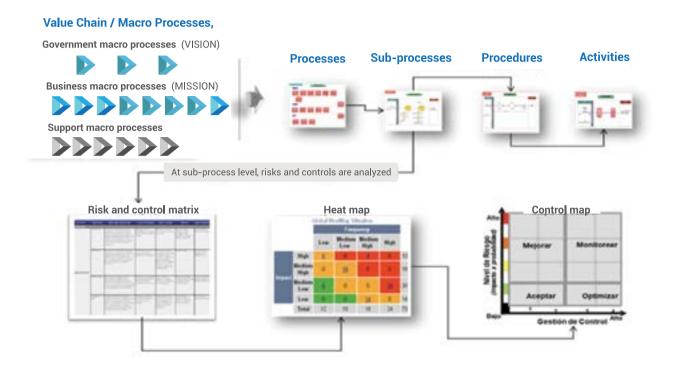


This allows for a defined inventory of processes updated at institutional level that were documented from top to bottom under the best practices through the implementation of the process management Software (BPA); they are also the platform for risk analysis at process level, which allows monitoring them through reports and alerts to timely detect deteriorations and deviations from BMV Group's objectives.

#### **Operative Risk Management**

Starting from the process inventory, BMV Group initiated the identification of risks at institutional level, with a Top Management approach, and generated an institutional risk base with the following classification:

- Regulatory
- Strategic
- Financial information
- Operative
- Technological
- Reputational



# Analysis of incidents from the perspective of Operative Risk

All technological or operative incidents, internal and external (those caused by external agents, such as information and systems providers), are centralized in a single base in order to:

- Monitor incidents and their mitigation measures
- Identify vulnerabilities that may lead to relevant risks through root cause analysis
- Identify failed controls that have led to the materialization of risks
- Monitor services from a perspective of risks and incidents
- Ensure the mitigation of relevant incidents or risks
- Report to Senior Management to facilitate decision making

These incidents are associated with the risks documented in the Risk and Control Matrices. allowing an analysis of the materialization of the risks, which is reported to several government bodies, promoting risk management and transparency of the information.

# Regulatory Risk Framework

BMV Group has a regulatory Risks And Controls Framework embodied in a Manual and Methodology for the Management of Business Risks and Controls, as well as in the Policies of the Risk Management System, which capture and support the strategy for Risk and Control management.

BMV Group's companies have a Comprehensive Operational Risk Framework adapted to the particular needs of each company, its regulation and best practices. This document is aligned with the Group's management and strategy.

#### Internal Control

In adherence to the best practices in the area of Internal Control, Grupo Bolsa Mexicana de Valores (GBMV), through our Governing Body, approved the guidelines, functions and responsibilities for the implementation of the Internal Control System (SCI) in the various internal areas and bodies responsible for its application, monitoring and supervision.

The regulatory framework approved by BMV Group's Management, on which our SCI is based, is the following:

- Control functions and responsibilities at institutional level
- Risk management and internal control methodology
- Risk Management Policies
- Internal Control Policies
- Table of Faculties
- Conduct Code

Also, each line of business has operating manuals that detail the policies, procedures and controls that guarantee the records and the transactions in order to give reasonable assurance of BMV Group's information and assets, as well as to prevent and detect important risks that affect the fulfillment of the objectives of our Institution.

The Risk, Control and Continuity Directorate has a controls' self-assessment tool, Open Pages (GRC), to verify and monitor key controls and mitigate important risks, associated and documented to processes, operating and accounting systems, ensuring compliance with applicable internal policies and regulations; in addition, it includes controls' verification processes, in order to confirm that they operate in accordance with the established processes.

The Risk, Control and Continuity Directorate identifies, analyzes and evaluates the organization's risks and controls, under a three lines of defense scheme, defining the responsibilities of each of them in order to allow an adequate risk management.

In order to further strengthen the SCI, BMV Group considers the constant internal audits, which report the results obtained to the administration throughout the year and to the government bodies that participate in the supervision of the Internal Control's proper functioning.



# 1<sup>st</sup> line of defense

The operative and support areas that assume the primary responsibility over the risks of the institution



# 2<sup>nd</sup> line of defense

Areas specialized in risk and control issues. Their responsibility is to advise the first line of defense and monitor and report the risk exposure to Senior Management.



#### 3rd line of defense

Independent risk control reviews.

# **Business continuity**

BMV Group has a Business Continuity Management model, aligned with international best practices and standards, such as DRI Institute and ISO 22301, which allows it to respond immediately and orderly to events that may affect the continuity of its operations.

The Business Continuity Plan considers all the companies in the group and contains:

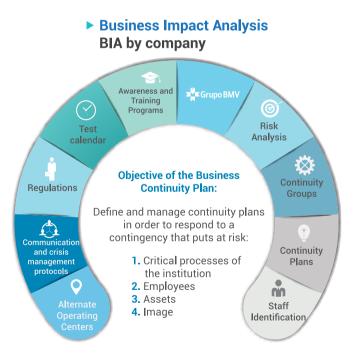
- Impact Analysis
- Risk Analysis
- Continuity Groups
- Continuity Plans
- · Critical Staff
- Alternate Operation locations
- Communication and Crisis Management Protocols
- Regulatory Framework (Policies and Procedures)
- Awareness and Training Programs
- Test Calendars

It is important to highlight that one of the most important activities of the Business Continuity Plan is the Awareness and Training; therefore, there are continuity days, in which the following activities stand out:

- Work Sessions focused on the various Groups and Teams identified in the Government of the **Business Continuity Plan**
- Communications to collaborators
- Video-messages using lobby and trading floor screens
- Screen savers
- General knowledge evaluations

Another fundamental element of the Business Continuity Plan is the execution of tests; therefore, there are calendars developed for each one of the defined scenarios, considering the participation of all collaborators.

All of the above allows BMV Group to comply with the regulations regarding business continuity.



# ▲ INFORMATION SECURITY

BMV Group recognizes Information Security in its business processes and services, considering it as one of its most important axes for the achievement of its objectives, respecting the principles of Confidentiality, Integrity and Availability of Information.

The main objective is that BMV Group achieves a reasonable level of Information Security in the various layers of IT, with state-of-the-art technological tools, as well as procedures that prevent and, where appropriate, respond in a timely manner before any incident regarding Information Security.

#### Continuous evaluation

Vulnerability analysis and penetration tests are carried out periodically in order to measure the level of detection and response of the various technological tools, as well as of the personnel responsible for possible cyber-attacks, in order to continue strengthening the security in our IT infrastructure.

#### **Constant awareness and training**

The subject of awareness and training regarding matters of Information Security is very important; therefore, a permanent awareness campaign is carried out through several means, such as controlled tests, user certification in aspects of information security, as well as implementation of learning management technological tools, in order to maintain and improve awareness among all BMV Group's users.



# **▲ HUMAN FACTOR**

At December 31, 2018, we have 532 employees, out of which 297 are men and 235 are women, to whom we provide the benefits established in Mexican legislation for full-time employees, including social security, employee participation in profits and paid vacations, as well as some additional benefits granted by the company. We believe that relations with our workers are good.

#### **EQUAL OPPORTUNITIES IN OUR WORK TEAM**

BMV Group supports equal opportunities and is committed to maintaining a team in which no one is discriminated against based on gender, marital status, age, religion, race, physical appearance, differences of opinion, political opinion, social condition, language, nationality, sexual orientation, pregnancy or different physical abilities. This is established in our Ethics' and Conduct Code within the "Principles that guide our conduct".

In order to avoid any type of discrimination in the conformation of our work team, we created the "Personnel Hiring Policy", which establishes guidelines of the process for filling a vacancy. The essential conditions when selecting a person for a position must be the merits, achievements and experience obtained in their work, as well as the capacity and skills they have for the future position, which must be verified by comparing the profile of the person against the job description. Although we support the growth of our internal collaborators, the selection process must evaluate at least 3 candidates and adhere to an objective selection.

In terms of Recruitment and Selection, the bases to compete for vacancies within the institution were broadened, through open internal calls to cover any vacant position within the Group, which allows greater mobility even within the same level, thereby encouraging broad participation of various collaborators with the appropriate profiles to perform the functions to be covered. For positions of managerial level and up, in addition to internal open calls, evaluation panels are carried out in order to evaluate and select the best candidate through the vision of senior executives from different areas of the Group, seeking objectivity in the evaluation of both internal candidates and external candidates.

In 2018, more than 130 internal calls were published and 10 evaluation panels were held, which were composed of both internal and external candidates, thus taking a firm step in the optimization of talent selection processes. During this year, 48 personnel movements were made (laterals and promotions), which is equivalent to 9% internal mobility.

Additionally, there is the Professional Practices program in BMV Group. In this program, students who attend the last semesters of higher education can support substantive areas of the organization. This way we include young professionals in the labor world, supporting the development of their skills and professional experience. During 2017, we had the participation

of over 56 students, which is beneficial for the Group, since 9 of those were hired as analysts. Within the Group we currently have 2 collaborators from other nationalities (Venezuelan and Spanish). All nationalities are welcome and the only additional requirement for their hiring is to have the necessary permit for their residence in Mexico and, if required, the Group supports them with the necessary steps to obtain such permit.

Most of our facilities have accommodations for the mobility of the disabled.

#### **OUR COLLABORATORS: OUR MOST IMPORTANT ASSET**

Our collaborators are the main differentiator of BMV Group. Their integral development also represents the development and evolution of our Institution, that is why we constantly seek to offer the best working conditions and we maintain an adequate balance between professional and personal life.

In BMV Group we work 40 hours a week distributed from Monday to Friday, with one hour for lunch, in a general schedule of 8:30 a.m. to 5:30 p.m. The working hours and schedule may be modified based on the needs of the company or the nature of the work, always within the framework of the Federal Employment Law and the Internal Regulations. We have a program of staggered schedules.

In our organization, all employees have:

- Insurance for major medical expenses
- Life insurance
- End of the year bonus
- Vacation bonus
- Savings Fund
- Profit sharing
- Retirement plans



There are also additional benefits, such as:

- Lunch area, as well as the inauguration of a new cafeteria
- This year we inaugurated a medical office and a nursing room
- Discounts in day care centers and schools
- Agreements with gyms
- Discounts and special promotions in restaurants, hotels, amusement parks, artistic activities, appliances and department stores



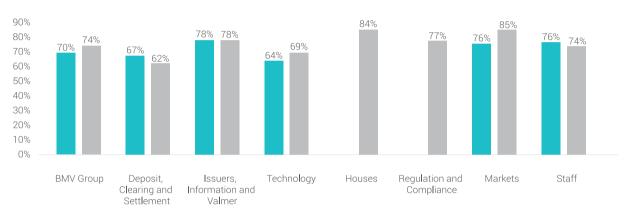


**Nursery** 

#### ORGANIZATIONAL ENVIRONMENT

With regard to the Work Environment component, during 2018 the results were very satisfactory and were reflected in a significant increase in BMV Group and in most of its areas. Some of them have no comparison with respect to 2017, derived from the fact that they are newly created.

## ► Group's Organizational Environment



#### PERFORMANCE EVALUATION AND CAREER PLAN

In 2018, the Performance Management Model continued to be developed, which seeks to:

- 1) Align the Group's goals with individual performance
- 2) Clarify the objectives of the area in individual objectives and how each function allows to achieve the strategic goals
- 3) Provide transparency in the Performance Management process
- 4) Identify development programs for specific segments (development, leadership, high potential and succession plans, among others)
- 5) Classify the collaborators in the Talent Matrix in order to activate the development programs according to the identified segments

With this model, the institution promoted the achievement of the objectives framed in the Strategic Plan and the goals set for the current year were achieved.

Un componente fundamental del Modelo radica definir con claridad los objetivos a desarrollar. a efecto de establecer las acciones pertinentes, conocer y fijar las expectativas, niveles de exigencia, mecanismos de medición y metas a lograr, así como los tiempos de ejecución de las actividades.

A fundamental component of the Model is to clearly define the objectives to be developed. in order to establish the pertinent actions, know and set the expectations, levels of demand, measurement mechanisms and goals to achieve, as well as the execution times of the activities.

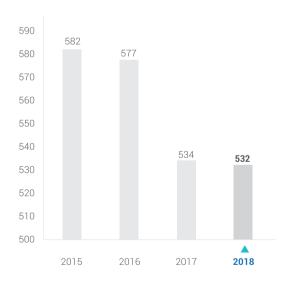
The foregoing should be encouraged through an open, continuous and constructive dialogue between the leader (boss) and the collaborator, in order to foster a productive work environment focused on the achievement of individual and institutional goals.

The individual evaluation has two components: Objectives and 360° Competences (quantitative and qualitative) that allow to balance the fulfillment of a goal, but also the way in which such fulfillment is achieved.

The Institution seeks to reward with an additional to employees who achieve a higher than expected performance of their objectives and who show -throughout the year- great willingness, initiative, teamwork, support for employees and an attachment to values and the ethics' code.

The Model is applicable to all levels and positions, according to their roles and levels of influence on BMV Group's results.

# **▶ BMV GROUP'S DEMOGRAPHIC DATA**





Year	Women	Mer
2015	42%	58%
2016	44%	56%
2017	43%	57%
2018	44%	56%



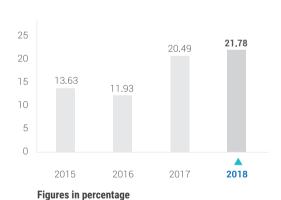


32%



Position	2015		2016		2017		2018	
	Men	Women	Men	Women	Men	Women	Men	Women
Chief Executive Officer (General Director)	1	0	1	0	1	0	1	0
Deputy General Director	4	0	4	0	4	0	4	1
Executive Director	1	1	1	1	1	1	0	0
Director	21	4	18	4	20	4	18	3
Corporate Deputy Director	7	0	5	0	4	1	5	0
Compliance Officer	1	1	1	1	1	1	1	1
Deputy Director	30	18	21	13	23	13	28	18
Manager	56	49	58	45	54	37	61	49
Specialist							119	88
Analyst							60	75
TOTAL	121	73	109	64	108	57	297	235

#### ► Annual Rotation



## **ENVIRONMENTAL IMPACT**

For the specific case of BMV Group, since it consists exclusively of financial services companies, we identify that our main environmental impacts are concentrated in the use of paper, water, electricity and waste disposal.

In our main building we have updated the infrastructure of elevators, air conditioners, escalators and we have a robust maintenance program, which allows us to keep them in excellent condition and thereby optimize the use of energy.

In order to contribute to the reduction of environmental impact, we have also continued with the implementation of the following measures:

- Containers at the entrance in Reforma St. and exit through Río Papaloapan St. with separation of organic and inorganic waste, as well as a space for the adequate separation of batteries.
- Additionally, PET and paper are delivered to an Institution to be recycled.
- Paperless culture. We continue to raise awareness about the use of paper in collaborators through an ecological legend in our notice included in our emails' signature. Additionally, we promote that all impressions are made in reuse sheets. Also, over 70% of the paper that we acquire is ecological, 100% recyclable, free of elemental chlorine in the bleaching of cellulose; it comes from sustainable forests and complies with the ISO 14001 environmental management standards.
- Use of biodegradable cleaners. All the detergents and cleaners that we use for the maintenance and cleaning of our facilities are biodegradable.

Below are some images of our relevant events:

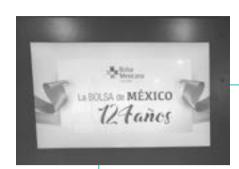
# Bike ride





3rd race "Escucha a Fondo"













124 years of BMV Group

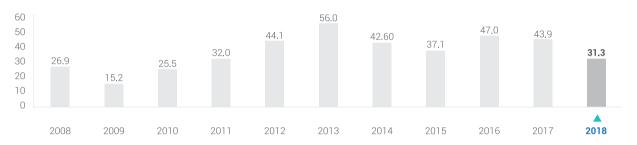
# **RELATIONSHIP WITH INVESTORS**

#### **Share Performance**

In 2018 BOLSA A had an average price of \$34.96 and an average daily volume of 891 thousand securities, recording a value at the end of the year of \$33.49. It is important to note that in 2017 the average price was \$31.02.

Since the Initial Public Offering in 2008, the share has presented an increase in its compound annual liquidity, which has allowed it to have access to regional and specialized funds that have certain minimum liquidity requirements.

### ► Daily Average Annual Liquidity

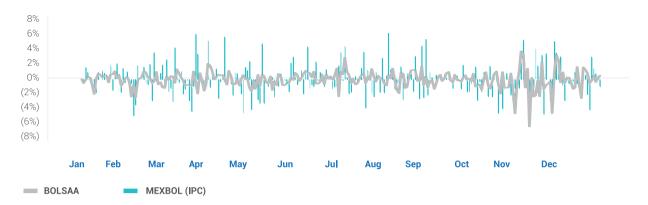


With the aim of continuing to strengthen the liquidity of the share, during 2018 we continued with the Market Maker services that we have used since 2008.

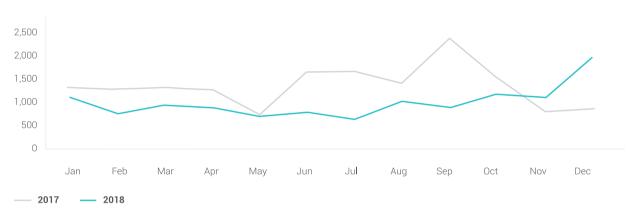
During the year, the BOLSA A share was covered by specialized analysts from the following institutions: Itaú BBA Securities, Bank of America, Bradesco BBI, Credit Suisse, HSBC, JP Morgan, UBS, Vector, Santander Group and Barclays.

Analyst	Recom.	Price	Date
J.P. Morgan	Maintain	38.0	01/09/19
Grupo Santander	Buy	40.0	01/08/19
Bradesco BBI	Buy	51.0	12/19/18
HSBC	Maintain	33.0	11/21/18
Vector Servicios Financieros	Buy	41.0	10/24/18
Credit Suisse	Buy	43.0	16/10/18
Barclays	Maintain	42.0	16/10/18
ITAÚ BBA Securities	Maintain	42.5	10/08/18
Bank Of America	Buy	43.0	08/01/18
UBS	Maintain	36.0	01/07/18
	Average	40.9	

#### ► Evolución del Precio de la Acción Bolsa durante 2018



### ► Average Volume of Bolsa 2018 vs. 2017



Figures in thousands

#### Presence with Investors

During 2018, the Investor Relations area represented BOLSA A in over 200 meetings distributed in reunions and conferences organized by various financial institutions with investors from North America, Latin America and EMEA, seeking to give more timely attention to investors and analysts and increase the presence of BAGSA in specialized events.

It is noteworthy that this year we obtained the following rating from Fitch Ratings, which makes us proud and allows us to provide greater reliability and certainty to our investors and clients.

CORPORATE NAME	CODE	COUNTRY	FITCH NATIONA L LP	FITCH NATIONAL CP	FITCH GLOBAL LP	FITCH GLOBAL CP	DATE REVISION FITCH
BOLSA MEXICANA DE VALORES S.A.B.	VLM101	MX	AAA (mex)	F1+ (mex)	BBB+	F2	20180921

# **SUSTAINABILITY**

In the BMV group, it is vital to create an environment of social and environmental inclusion and accountability. To achieve this, we comply with the highest standards in terms of corporate governance, transparency and ethics. The aforementioned is reflected in our sustainability report. For the preparation of this report, we used the methodology of the Guide for Social, Environmental and Corporate Responsibility Reports of the World Federation of Exchanges (WFE), which responds to current trends and to recommendations contained in the Sustainable Stock Exchanges Initiative (SSE Initiative), postulated by the United Nations, in matters of Corporate Social Responsibility (RSC).

In this framework, during 2018 we focused on giving continuity to sustainability efforts in our businesses, with market participants and with the community in general.

The pillars of our sustainability strategy are:

- Corporate Axis: Optimize the investment of our shareholders, strengthening efficiencies and synergies in all our internal processes, in order to contribute to the development of the Mexican financial market with sustainable corporate growth strategies in the long term.
- Social Axis: Generate an organizational culture of equality, participation and fair competition, in order to obtain high performance, improve the quality of life of our employees and market participants and spread the financial and stock market culture in Mexico.
- Environmental Axis: Promote with our stakeholders actions, market mechanisms and investment vehicles that promote corporate and environmental responsibility, involving both the issuing companies and the various areas of the Group.

Continuing with the development of green and sustainable finances in 2018, we promoted various initiatives through MÉXICO, a platform operated by SIF ICAP, which triggered the following actions: the issuance of three green and three sustainable bonds. The green bonds were issued by BBVA Bancomer (3,500 million pesos), FIRA (2,500 million pesos) and Mexico City's Government (1,100 million pesos), while sustainable bonds were issued by Banobras (2,560 million pesos), Vinte (800 million pesos) and Rotoplas (1,000 million pesos).

As regards the voluntary carbon market, MÉXICO2 offset around 40,000 tons of CO2 through the purchase of certified emissions reductions. Also, MÉXICO, included the offer of 5 new projects – accumulating now 15. These projects come from different sectors, including: forestry, renewable energy (wind, solar), energy efficiency and biogas capture in waste management.

MÉXICO<sub>2</sub> has made known the importance of green finances in regional and local events through various partnerships with the Lima Exchange, the Buenos Aires Exchange, the British Embassy in Mexico, the British Embassy in Colombia, the British Embassy in Peru and the Ibero-American Federation of Exchanges (FIAB).

#### Carbon Market Exercise

During 2018, MÉXICO, developed the first Carbon Market Exercise in Latin America, developed jointly with the American NGO Environmental Defense Fund (EDF) and the Ministry of Environment and Natural Resources (SEMARNAT), with financing from the World Bank through its Partnership for Market Readiness (PMR) program. The project consisted in the simulation of an emission trading system, such as that which exists in the European Union or California. It is the most important instrument for Mexico to achieve the climate goals established in the General Law on Climate Change and the Paris Agreement.

The project's objective has been to promote the construction of capacities related to emissions trading in the country, instruct the participating companies on the basic elements of a carbon market and motivate the dialogue between the private sector and the government regarding the rules of market operation.

This exercise brought together more than 100 Mexican companies and was carried out through a digital platform, completely voluntarily and without cost. The exercise ended on July 31, 2018 and lasted for 12 months.



BMV Group's 2017 Sustainability Report contains more detailed information on the actions regarding the institutional strategy in this area.

# **CULTURAL** AND DIGITAL PROMOTION

BMV Group's Cultural Project during 2018 has been strengthened with the culmination of the first phase of the **Exchange's MUBO Museum** where, through 29 thematic groups, we trace the history of the stock market from its origins to the present day. With the creation of this space we have a tool for understanding the importance that BMV has had in the consolidation and development of the country.

Additionally, we continue to promote through the Cultural Diffusion Program the creative work of emerging artists who seek a professional and dignified way to publicize their artistic proposals, we continue to support the work of Foundations as Quiera, whose goal is to ensure well-being of children and young people at risk of living in the streets.

With these projects, BMV Group confirms its commitment to continue supporting the Cultural diffusion in Mexico.







# **BMV GROUP'S DIGITAL STRATEGY**

Knowing the need to have direct communication with our various audiences, we have been implementing the constant use of social networks. Last year, our social media accounts had the following behaviors:

### **Facebook**



At the end of 2018, we obtained a **growth of 22.2% in followers**, which translates into **230,730 fans.** The countries with the greatest consumption of our contents were: Mexico, followed by the United States, Colombia, Spain and Peru. The main cities of our country that consume the contents are: Mexico City, Puebla, Toluca, Guadalajara and Monterrey.

## **Twitter**

In our account @BMVMercados, we managed to increase the number of followers to **307,538** at the end of 2018, equivalent to **an increase of 11.3%** in relation to the previous year.



### YouTube



Last year we increased to **3,759 subscribers.** The age range of our community is between 25 and 34 years of age, which represent 56.14% of our subscribers. The three most successful videos during 2018 were: **"My 1st Investment in the Stock Exchange"** with 8,422 views, **"Investment Instruments"** with 3,128 views and **"Understanding Derivatives"** with 3,620 views. The main geographical regions that viewed our contents are: Mexico 95%, United States 3%, Ecuador 1.8%, Peru 0.2% and Colombia 0.2%.

# Linkedin

Our audience has a Senior Profile related to the Financial Sector. At the end of 2018, we recorded an **increase of 144.1% in the number of followers**, which translates into **30,515 people**. **The impressions grew 71.2%**, creating a total of **2,340,675** and reaching **a total of 877,955 users** of this network. **Participation increased 159.3%**, achieving **61,323 actions** of users, understood as: 'Like', comments, shared content and clicks on our content.



## Instagram



Our account has had a favorable reception among the community of followers since we have highlighted the value of the Bolsa Mexicana de Valores brand. The information that is published in our profile consists of rings, issuers' anniversaries, Exchange Experience, Exchange's Thursdays and specific subjects of the Mexican Exchange School. During 2018, there was an **increase of 5.902%** followers, in relation to the previous year, with a total of 22,328 people.



In our social networks, we achieved almost 28 million impressions, a percentage growth of 23.7% compared to the previous period and the number of users that follow us increased 23.7%, equivalent to 591,111 people.



## **Facebook Live**

We strengthened our live broadcasts of the various events that took place from the Trading Floor's Balcony. During 2018, we had **39 streaming transmissions** that allowed us to bring a greater number of people to the stock market. Facebook Live's transmissions can be followed through our official profile @BolsaMexicanaValores

# Blog "Hablemos de Bolsa"

In September, 2018, we launched the official blog of the Mexican Exchange "Let's talk about the Exchange", in order to bring economic, financial and stock exchange topics in a simple and friendly manner, as well as to promote financial culture among Mexicans.

The blog covers three segments of the public that consume the contents:

- Public interested in the stock market
- Students
- Specialized public

### It consists of eight categories:

• **News.** Immediate information about the stock market and financial sector

#### ·Financial Education.

Basic concepts of savings, investment, financial planning and academic options, as well as personal finances.



- Success stories. Our companies that, through financing in the Mexican Exchange, consolidate their projects.
- Sustainable markets. Information about the socio-environmental actions that are promoted in the market through the Mexican Exchange.
- Mexican Stock Exchange. Explanation about how companies can obtain financing and the instruments offered by the market so that people can invest.
- Social and corporate responsibility. Inform about the various activities that we carry out for the benefit of society.
- Art/Cultural program. It shows and invites the public in general to the cultural activities that take place in our facilities: Exchange Museum (MUBO), art exhibitions and concerts.

Access to the blog "Hablemos de Bolsa" is through

# https://blog.bmv.com.mx/ www.bmv.com.mx

At the end of last year, we had published 89 articles and had an audience of 34,935 visits.



## **Links with Institutions**

During 2018, we carried out **13 key activities to link BMV** with various institutions, among which the following stand out:

- 4 "Exchange Days" in various academic institutions, impacting over 1,300 university students. The "Exchange Day" consists of a program of conferences given by BMV Group's executives in which issues of Investment, Financing, Derivatives and Personal Finances are addressed. accompanied by a promotional stand where BMV School's academic offer is shared.
- 8 lectures, in which over 2,100 people participated, addressing topics about what the Exchange is and its importance for the Mexican economy and Financing Instruments.

#### Jueves de Bolsa

"Jueves de Bolsa" were positioned as the activity with the most contact and interest within university students and the general public. The lectures are free and given in the Auditorium by specialists address topics such as investment, instruments, new trends in the markets and trading.

During 2018, we held 21 lectures, with an attendance of 4,320 people. Some of the topics with greater interest among the audience were: "Derivatives, benefits and applications", "Impact investments", "Trading securities live", "Investing in global companies", "Blockchain applications", "How to invest in indices", "My first investment in the Exchange", The importance of diversifying investments", among others.



# **Brokerage Firms**

We support brokerage firms for the diffusion of initiatives, putting them in contact with over 35,000 university students. The most widely disseminated events were:

- a) Actinver Challenge Sponsor
- b) Financial Day Exchange School Actinver

# **Alliances and Exchange Events**

One of the objectives of the Corporate Communication area is to promote and strengthen alliances with various financial and Entrepreneurism institutions, in such a way that we participate actively in various events both in our facilities and outside of them:

- a) 4th Annual ETF's Summit, event organized jointly with S&P Dow Jones Indices.
- **b)** Participation with sponsorship and institutional booth at the AMIB Meeting.

For this edition, an activation was made with the attendees, which consisted of visiting the BMV booth and sharing their experience through our social networks; this generated an approach and empathy of this specialized audience with the Exchange's promotional activities.

- c) Participation with sponsorship and a booth at the Afores Convention.
- d) Participation with sponsorship and a booth at the Financial Education National Week.
- e) Holding in our facilities and sponsorship of the finals of the Entrepreneur Student Award 7<sup>th</sup> edition.
- f) Holding in our facilities and sponsorship of the Regional Semi-Final of the Entrepreneur Student Award in its 8<sup>th</sup> Edition.



# **FINANCIAL STATEMENTS**

## **▶ Summary of Consolidated Income Statements**

#### BOLSA MEXICANA DE VALORES, S.A.B. DE C.V. Y SUBSIDIARIAS **Consolidated Income Statements\***

		2018**		2017**
Continuous operations				
Income with clients				
Capital	\$	552,874	\$	475,530
Issuers		694,126		654,650
Derivatives		199,672		216,236
OTC (SIF ICAP)		565,470		553,857
Custody		886,557		681,782
Information services		468,719		428,652
mornidaen eervisee		3,367,418		3,010,707
Other non-operative income		180,725		171,262
Total income		3,548,143		
Total moonie		3,340,143		3,181,969
Expenses				
Personal	(	832,020)	(	796,749)
Technology	(	356,187)	(	302,865)
Depreciation and amortization	(	83,494)	(	92,597)
Rent and maintenance	(	64,871)	(	73,019)
Salaries	(	212,245)	(	153,380)
Fees to CNBV	(	27,712)	(	25,989)
Reserve of uncollectible accounts	(	4,036)	(	75)
Other expenses	(	102,844)	(	95,458)
Total expenses	(	1,683,409)	(	1,540,132)
Operative Activities Profit		1,864,734		1,641,837
Financial income (Note 24)		270,218		212,420
Financial costs (Note 24)	(	83,346)	(	126,605)
Share in results of associates (Note 9)	`	7,296	(	10,198
Dividend income		10,425		8,398
Consolidated income before tax on profit		2,069,327		1,746,248
Tax on profit (Note 15)	(	590,752)	(	490,413)
Consolidated profit for the year		1,478,575		1,255,835
Other comprehensive income, net of tax on profit Items that will not be reclassified to profit or loss Actuarial gains (losses)		550	(	210)
Valuation of equity financial instruments	1	6,937)	(	۷۱۰)
Items that will be reclassified to results in the future	(	0,931)		-
Conversion effect of foreign subsidiaries	(	5,249)	(	20,725)
Consolidated comprehensive profit for the year	\$	1,456,939	\$	1,234,900
23.133.13dica comprehensive profit for the year	Ą	1,430,333	Ą	1,204,900

<sup>\*</sup>Thousands of pesos

<sup>\*\*</sup>For the years that ended on December 31 of 2018 and 2017

## **▶ Consolidated Balance Sheet**

### BOLSA MEXICANA DE VALORES, S.A.B. DE C.V. AND SUBSIDIARIES **Consolidated Balance Sheet\***

	<b>2</b> 018**	2017**
Assets		
Current assets:		
Cash and cash equivalents (Note 3)	\$ 2,764,422	\$ 2,649,190
Financial assets designated at their fair value (Note 4)	-	198,089
Accounts receivable, net (Notes 5 and 11)	420,095	382,341
Total current assets	3,184,517	3,229,620
Non-current assets:		
Goodwill, net (Note 7)	3,123,600	3,123,600
Property, furniture and equipment, net (Note 8)	471,776	468,566
Equity instruments (Note 6)	229,443	219,411
Intangible assets, net (Note 10)	289,218	281,140
Deferred taxes on profit (Note 15)	42,320	42,549
Investments in associates and businesses		
sets (Note 9)	31,390	25,757
Benefits to employees (Note 14)	10,952	6,390
Other assets, net	46,284	50,740
Total non-current assets	4,244,983	4,218,153
Total assets	\$ 7,429,500	\$ 7,447,773

<sup>\*</sup>Thousands of pesos \*\*At December 31

# ► Consolidated Balance Sheet (continue)

		<b>2</b> 018**		2017**
Pasivos				
Current liabilities:				
Bank Ioan (Note 13)	\$	-	\$	226,707
Suppliers and other accounts payable (Note 12)		468,802		412,796
Tax on profit payable (Note 15)		59,144		32,982
Related parts (Note 11)		11,489		5,774
Total current liabilities		539,435		678,259
Non-current liabilities:				
Bank loan (Note 13)		-		408,168
Benefits to employees (Note 14)		2,257		1,128
Other accounts payable		47,090		29,778
Total non-current liabilities		49,347		439,074
Total liabilities	\$	588,782	\$	1,117,333
A				
Accounting capital (Note 16) Corporate capital	ć	4 F07 202		4.507.000
Cumulative results (Note 18 a)	\$	<b>4</b> ,507,303 32,130)	,	4,507,303
Premium in repositioning of shares	(	32,130)	(	3,621)
repurchased (Note 18 c)		206		202
Reserve for repurchase of shares (Note 18 b)		402,600		202
Legal reserve		354,529		199,000 296,494
Result of the year		1,375,879		,
Other capital accounts	(	1,373,679 5)		1,160,688 163
Other items of comprehensive result	(	445)	(	34,235)
Accounting capital attributable to participation	(	443)	(	34,230)
Controller		6,607,937		6,125,994
Non-controller participation (Note 19)		232,781		204,446
Total accounting capital		6,840,718		6,330,440
Total liabilities and accounting capital	\$	7,429,500	\$	7,447,773
				, ,

<sup>\*</sup>Thousands of pesos \*\*At December 31

## **▶** Consolidated cash flow statements

### BOLSA MEXICANA DE VALORES, S.A.B. DE C.V. AND SUBSIDIARIES Consolidated cash flow statements\*

		2018**		2017**
Operative activities cash flows				
Consolidated profit for the year Adjustments for:	\$	1,478,575	\$	1,255,835
Depreciation and amortization		83,494		92,597
Share of results of associates	(	7,296)	(	10,198)
Interest accrued for loan	(	1,290)	(	62,833
Tax on profit in results		590,752		490,413
		2,145,525		1,891,480
Changes in operating activities: Financial assets designated at fair value Accounts receivable and prepayments Suppliers and related parties Benefits to employees Long-term accounts payable Payment of tax on profit Net cash flow generated by operating activities  Investment activities cash flows A Acquisitions of furniture and equipment Acquisitions in the investment for project development Payments to acquire non-controller participation	( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	198,089 33,298) 32,662) 3,433) 17,313 490,568) 1,800,965	( ( ( (	345,820 77,226) 9,086 3,973) 29,778) 473,201) 1,721,764
Dividends received		9,188	,	-
Other assets  Net cash flow used in investment activities		95,225)	(	26,395) 87,902)
Financing activities cash flows Payment of dividends Payment of dividends to the non-controller participation Bank loans Loan interest paid Net cash flow used in financing activities  Net increase in cash and cash equivalents Cash and cash equivalents:	( ( ( (	895,413) 65,496) 589,063) 40,537) 1,590,509)	( ( ( (	741,236) 102,181) 204,084) 58,300) 1,105,801)
At the beginning of the year		2,649,190		2,121,129
Cash and cash equivalents at the end of the year	\$	2,764,422	\$	2,649,190
				, ,

<sup>\*</sup>Thousands of pesos

<sup>\*\*</sup>For the years that ended on December 31 of 2018 and 2017



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#### INFORME DE LOS AUDITORES INDEPENDIENTES

Al Consejo de Administración y Asamblea de Accionistas de Bolsa Mexicana de Valores, S.A.B. de C.V.,

#### Oplnión

Hemos auditado los estados financieros consolidados adjuntos de Bolsa Mexicana de Valores, S.A.B. de C.V. y Subsidiarias (en adelante, la BMV o la Compañía), que comprenden el estado de situación financiera consolidado al 31 de diciembre de 2018, el estado consolidado de resultados, el estado consolidado de resultados integrales, el estado consolidado de cambios en el capital contable y el estado consolidado de flujos de efectivo correspondientes al ejercicio terminado en dicha fecha, así como las notas explicativas de los estados financieros consolidados que incluyen un resumen de las políticas contables significativas.

En nuestra opinión, los estados financieros consolidados adjuntos presentan razonablemente, en todos los aspectos materiales. la situación financiera consolidada de la Boisa Mexicana de Valores, S.A.B. de C.V. y subsidiarias al 31 de diciembre de 2018, así como sus resultados consolidados y sus flujos de efectivo consolidados correspondientes al ejercicio terminado en dicha fecha, de conformidad con las Normas Internacionales de Información Financiera.

#### Fundamento de la opinión

Hemos llevado a cabo nuestra auditoría de conformidad con las Normas Internacionales de Auditoría (NIA). Nuestras responsabilidades de acuerdo con dichas normas se describen más adelante en la sección Responsabilidades del auditor en relación con la auditoría de los estados financieros consolidados de nuestro informe. Somos independientes de la BMV de conformidad con el Código de Ética para Profesionales de la Contabilidad del Consejo de Normas Internacionales de Ética para Contadores (Código de Ética del IESBA), junto con los requerimientos de ética que son aplicables a nuestra auditoría de los estados financieros consolidados en México por el Código de Ética Profesional del Instituto Mexicano de Contadores Públicos (Código de Ética del IMCP) y hemos cumplido las demás responsabilidades de ética de conformidad con esos requerimientos y con el Código de Ética del IESBA.

Consideramos que la evidencia de auditoría que hemos obtenido proporciona una base suficiente y adecuada para sustentar nuestra opinión.

#### Asuntos clave de la auditoria

Los asuntos clave de la auditoría son aquellos que, según nuestro juicio profesional, han sido los más significativos en nuestra auditoría de los estados financieros consolidados del periodo actual. Estos asuntos han sido tratados en el contexto de nuestra auditoría de los estados financieros consolidados en su conjunto y en la formación de nuestra opinión sobre estos, y no expresamos una opinión por separado sobre dichos asuntos. Para cada asunto clave de auditoría, describimos cómo se abordó el mismo en el contexto de nuestra auditoría.

Hemos cumplido las responsabilidades descritas en la sección Responsabilidades del auditor en relación con la auditoria de los estados financieros consolidados de nuestro informe, incluyendo las relacionadas con los asuntos clave de auditoria. Consecuentemente, nuestra auditoria incluyó la aplicación de procedimientos diseñados a responder a nuestra evaluación de los riesgos de desviación material de los estados financieros consolidados adjuntos. Los resultados de nuestros procedimientos de auditoria, incluyendo los procedimientos aplicados para abordar los asuntos clave de la auditoria descritos más adelante, proporcionan las bases para nuestra opinión de auditoria de los estados financieros consolidados adjuntos.

#### Crédito Mercantil

Descripción y por qué se consideró como asunto clave de la auditoría

Hemos considerado la evaluación de deterioro del crédito mercantil como un asunto clave de auditoría, debido a que la determinación del valor de recuperación requiere juicio significativo de la Administración, así como el uso de supuestos subjetivos y proyecciones estimadas de los flujos económicos sujetos a condiciones futuras de mercado.

En las Notas 2 y 7 de los estados financieros consolidados al 31 de diciembre de 2018 adjuntos, se incluyen las revelaciones sobre el crédito mercantil el cual corresponde a un importe de \$3,124 millones originado por la adquisición de las subsidiarias descritas en dichas notas.

Cómo respondimos al asunto clave de auditoria

Nuestros procedimientos de auditoría para cubrir este asunto incluyeron los siguientes:

a) Evaluamos el diseño de los controles significativos con respecto al proceso de análisis de deterioro al 31 de diciembre de 2018; b) Evaluamos los supuestos clave y metodología aplicada por la Administración de la BMV en su evaluación de deterioro conforme a los requerimientos contables correspondientes. Involucramos a nuestros propios especialistas al aplicar nuestros procedimientos de auditoría en esta área; c) Analizamos el modelo de la valuación utilizado para asegurar que cumpliera con técnicas de valuación adecuadas para la determinación del valor presente de los flujos de efectivo futuros: d) Evaluamos el plan de negocio de la BMV, considerando las proyecciones financieras utilizadas por la Administración en el análisis de deterioro de las unidades generadoras de efectivo ("UGE") que consideramos en nuestro alcance; e) Evaluamos la composición de las UGE y los activos sujetos al análisis de deterioro dentro de cada UGE. Comparamos los pronósticos de ingresos y los márgones de utilidad de una muestra de UGE con los presupuestos aprobados por la Administración de la BMV; f) Analizamos los supuestos clave, considerando la sensibilidad de dichos supuestos para los cuales el resultado del análisis de deterioro es más sensible, tales como la tasa de descuento y la tasa de crecimiento de ingresos en el periodo terminal; comparamos estas hipótesis con datos clave de fuentes externas a la BMV; g) Recalculamos de manera independiente los cálculos aritméticos de los modelos de valuación utilizados, considerando la consistencia en los criterios de agrupación de las UGE aplicados por la BMV y; h) Evaluamos las revelaciones relacionadas al crédito mercantil de los estados financieros consolidados adjuntos al 31 de diciembre de 2018.

Ingresos de capitales y emisoras

Descripción y por qué se consideró como asunto clave de la auditoria

Los ingresos por capitales corresponden a comisiones por operatividad (compra y venta de valores) cobradas a clientes que operan en la BMV. Los ingresos por emisoras incluyen principalmente las cuotas de listado y mantenimiento de las emisoras que cotizan en la BMV. Hemos considerado ambos tipos de ingresos como un asunto clave de auditoría de la BMV debido a que la determinación de éstos depende de diversos procesos altamente automatizados, son altamente regulados y deben de ser cobrados a los clientes con base en los esquemas tarifarios previamente aprobados por la Comisión Nacional Bancaria y de Valores (en adelante CNBV).

En la Nota 2 de los estados financieros consolidados al 31 de diciembre de 2018 adjuntos, se describen las políticas sobre el reconocimiento de ingresos de capitales y emisoras, los cuales corresponden a un importe total de \$1,247 millones.

#### Como respondimos al asunto clave de auditoria

Nuestros procedimientos de auditoría para cubrir este asunto incluyeron los siguientes: a) Analizamos el proceso de cálculo y reconocimiento de ingresos de capitales y emisoras llevado a cabo por la Administración; b) Evaluamos el diseño de los controles significativos sobre el proceso de reconocimiento de ingresos de capitales y emisoras durante 2018; c) Efectuamos procedimientos sustantivos para evaluar la integridad de la información operativa que da origen al reconocimiento contable de los ingresos; d) Determinamos una muestra representativa de ingresos de capitales y emisoras y sobre la misma efectuamos recalculos de ingresos utilizando las tarifas aprobadas por la CNBV por tipo de ingreso; e) Determinamos una muestra representativa de ingresos de capitales y emisoras y comparamos los ingresos con la facturas emitidas y los cobros de las facturas según los estados de cuenta bancarios de la BMV y; f) Evaluamos las revelaciones relacionadas a ingresos de los estados financieros consolidados adjuntos al 31 de diciembre de 2018.

#### Otra información incluida en el reporte anual

La Administración es responsable de la otra información. La otra información comprende la información incluida en el Reporte Anual que estipulan las Disposiciones de carácter general aplicables a las emisoras de valores y a otros participantes del mercado de valores, emitidas por la CNBV, pero no incluye los estados financieros consolidados ni nuestro informe de auditoria correspondiente. Esperamos disponer de la otra información después de la fecha de este informe de auditoria.

Nuestra opinión sobre los estados financieros consolidados no cubre la otra información y no expresaremos ninguna forma de conclusión que proporcione un grado de seguridad sobre esta.

En relación con nuestra auditoría de los estados financieros consolidados, nuestra responsabilidad es leer y considerar la otra información descrita anteriormente cuando dispongamos de ella y, al hacerlo, considerar si existe una inconsistencia material entre la otra información y los estados financieros consolidados o respecto al conocimiento obtenido por nosotros en la auditoría o si parece que existe una desviación material en la otra información por algún otro motivo. Cuando leamos y consideremos el Reporte Anual, si se presentara una desviación material, estamos obligados a comunicar el asunto a los responsables del gobierno de la BMV y emitir la declaratoria sobre el Reporte Anual, requerida por la CNBV en las disposiciones antes referidas, en la cual se describirá el asunto.

Responsabilidades de la Administración y de los responsables del gobierno corporativo de la BMV en relación con los estados financieros consolidados

La Administración es responsable de la preparación y presentación razonable de los estados financieros consolidados adjuntos de conformidad con las Normas Internacionales de Información Financiera, y del control interno que la Administración considere necesario para permitir la preparación de estados financieros consolidados libres de desviación material, debido a fraude o error.

En la preparación de los estados financieros consolidados, la Administración es responsable de la evaluación de la capacidad de la BMV para continuar como negocio en marcha, revelando, según corresponda, las cuestiones relacionadas con el negocio en marcha y utilizando la base contable de negocio en marcha excepto si la Administración tiene intención de liquidar la BMV o de cesar sus operaciones, o bien no exista otra alternativa realista.

Los responsables del gobierno de la BMV son responsables de la supervisión del proceso de información financiera de la BMV.

Responsabilidades del auditor en relación con la auditoría de los estados financieros consolidados

Nuestros objetivos son obtener una seguridad razonable de que los estados financieros consolidados en su conjunto están libres de desviación material, debido a fraude o error, y emitir un informe de auditoría que contiene nuestra opinión. Seguridad razonable es un alto grado de seguridad, pero no garantiza que una auditoría realizada de conformidad con las NIA siempre detecte una desviación material cuando existe. Las desviaciones pueden deberse a fraude o error y se consideran materiales si, individualmente o de forma agregada, puede preverse razonablemente que influyan en las decisiones económicas que los usuarios toman basandose en los estados financieros consolidados.

Como parte de una auditoria de conformidad con las NIA, aplicamos nuestro juicio profesional y mantenemos una actitud de escepticismo profesional durante toda la auditoria. También:

- Identificamos y evaluamos los riesgos de desviación material en los estados financieros consolidados, debido a fraude o error, diseñamos y aplicamos procedimientos de auditoría para responder a dichos riesgos y obtenemos evidencia de auditoría suficiente y adecuada para proporcionar una base para nuestra opinión. El riesgo de no detectar una desviación material debido a fraude es más elevado que en el caso de una desviación material debido a error, ya que el fraude puede implicar colusión, falsificación, omisiones deliberadas, manifestaciones intencionadamente erróneas o la elusión del control interno.
- Obtenemos conocimiento del control interno relevante para la auditoria con el fin de diseñar procedimientos de auditoria que sean adecuados en función de las circunstancias y no con la finalidad de expresar una opinión sobre la eficacia del control interno de la BMV.
- Evaluamos lo adecuado de las políticas contables aplicadas y la razonabilidad de las estimaciones contables y la correspondiente información revelada por la Administración.
- Concluimos sobre lo adecuado de la utilización, por la Administración, de la base contable de negocio en marcha y, basándonos en la evidencia de auditoría obtenida, concluimos sobre si existe o no una incertidumbre material relacionada con hechos o con condiciones que pueden generar dudas significativas sobre la capacidad de la Companía para continuar como negocio en marcha. Si concluimos que existe una incertidumbre material, se requiere que llamemos la atención en nuestro informe de auditoría sobre la correspondiente información revelada en los estados financieros consolidados o, si dichas revelaciones no son adecuadas, que expresemos una opinión modificada. Nuestras conclusiones se basan en la evidencia de auditoría obtenida hasta la fecha de nuestro informe de auditoría. Sin embargo, hechos o condiciones futuras pueden ser causa de que la BMV deje de continuar como negocio en marcha.
- Evaluamos la presentación global, la estructura y el contenido de los estados financieros consolidados, incluida la información revelada, y si los estados financieros consolidados representan las transacciones y hechos subyacentes de un modo que logran la presentación razonable.
- Obtenemos evidencia suficiente y adecuada en relación con la información financiera de las entidades o actividades empresariales dentro de la BMV para expresar una opinión sobre los estados financieros consolidados. Somos responsables de la dirección, supervisión y realización de la auditoría de la BMV. Somos los únicos responsables de nuestra opinión de auditoría.

Comunicamos con los responsables del gobierno de la BMV en relación con, entre otros asuntos, el alcance y el momento de realización de la auditoría planificados y los hallazgos significativos de la auditoría, así como cualquier deficiencia significativa del control interno que hayamos identificado en el transcurso de la auditoría. También proporcionamos a los responsables del gobierno de la BMV una declaración de que hemos cumplido los requerimientos de ética aplicables en relación con la independencia y comunicado con ellos acerca de todas las relaciones y demás asuntos de los que se puede esperar razonablemente que pueden afectar a nuestra independencia y, en su caso, las correspondientes salvaguardas.

Entre los asuntos que han sido objeto de comunicación con los responsables del gobierno de la BMV, determinamos los más significativos en la auditoría de los estados financieros consolidados del periodo actual y que son, en consecuencia, los asuntos clave de la auditoría. Describimos dichos asuntos en nuestro informe de auditoría salvo que las disposiciones legales o reglamentarias prohíban revelar públicamente el asunto o, en circunstancias extremadamente poco frecuentes, determinemos que un asunto no se debería comunicar en nuestro informe cuando se espera razonablemente que las consecuencias adversas de hacerio superarían a los beneficios de interés público de dicho asunto.

El socio responsable de la auditoría es quien suscribe este informe.

Mancera, S.C. Integrante de Ernst & Young Global Limited

C.P.C. Jorge E. Peña Tapia

Cludad de México, 19 de febrero de 2019