



Actinver: The Creation of a Retirement Fund

In March, 2023, Andrea Jiménez, mother of two children, is trying to save for her retirement. She goes to a branch of Actinver in León, Guanajuato, Mexico, the city where she lives. At the financial institution a team of people await her, and they request several documents, some of them to find out Andrea's "risk profile". The latter is necessary to determine the VAR (*Value at Risk*), the characteristics of the instruments, and the ideal portfolio for her. An Actinver wealth manager presents proposals to Andrea, and even though she is not familiar with investments, she must decide this week whether to accept the recommendations or if it is necessary to make adjustments. What answer should she give to the wealth manager?

The Customer Prospect

Andrea Jiménez is 35 years old, she is the mother of two children, divorced, and she works as administrative assistant at an SME in León. Her monthly salary is seventeen thousand Mexican pesos (1 MXN= \$0.05143 USD; X-rates, 2022).

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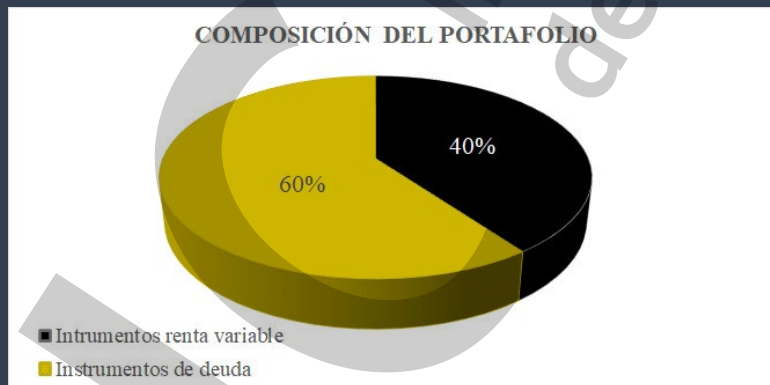
As part of her financial goals, Andrea wants to start an investment plan for her retirement, and to this day she has personal savings of \$1 million pesos (MXN), resulting from an inheritance. As a first step, she approaches the *Actinver* wealth managers to learn about the options that will enable her to obtain the best returns of her savings.

The wealth manager requests Andrea to fill out a set of documents that are part of the requirements, among them, the customer’s risk profile. Andrea completes it and her risk profile score is “moderate”. It is important to highlight that most of the customers who complete the risk profile are classified in that category.

According to the result of the risk profile, the wealth manager, together with his colleagues and supervisor, determine that it would be adequate to assign Mrs. Jiménez an annual -2.5% VAR (*Value at Risk*), with a 95% confidence interval. They also decide not to allow margin, derived financial instruments, or short sales in Andrea’s account. Additionally, they will seek that the portfolio provides a performance rate that is equal to TIEE plus 200 base points, without exceeding the VAR limit, and maximizing the *Sharpe Ratio*.

According to *Actinver*’s historical data, the portfolio’s ideal composition for this risk profile is shown in **Figure 1**.

Figure 1. Ideal portfolio composition for a “moderate” profile.



Source. Actinver, 2022.

The Consultancy Firm that will Handle Andrea’s Savings.

In May, 2022, *Corporación Actinver, S.A.B. de C.V.* (Actinver) is one of the main investment financial groups in Mexico (see **Table 1**) that offers private banking and investment services to natural and legal persons.

Table 1. Financial groups in Mexico as of December 2021.

Grupos Financieros Diciembre 2021	Número de subsidiarias						Total
	Controladoras	Bancos	Casas de Bolsa	Aseguradoras	Pensiones	Otros ^V	
Grupo Financiero BBVA México	1	1	1	1	1	4	9
Grupo Financiero Inbursa	1	1	1	1	1	4	9
Grupo Financiero Banorte	1	1				6	8
Grupo Financiero Banamex	1	1	1	1	1	2	7
Grupo Financiero Afirme	1	2		1		2	6
Grupo Financiero HSBC	1	1	1	1		2	6
Grupo Financiero ScotiaBank Inverlat	1	1	1			2	5
Grupo Financiero Invex	1	1	1			2	5
Grupo Financiero Multiva	1	1	1			2	5
Grupo Financiero Ve por Más	1	1	1	1		1	5
J.P. Morgan Grupo Financiero	1	1	1			1	4
Value Grupo Financiero	1		1			2	4
Grupo Financiero Mifel	1	1				2	4
Grupo Financiero Credit Suisse	1	1	1			1	4
Grupo Financiero Monex	1	1	1			1	4
Grupo Financiero Barclays México	1	1	1			1	4
Grupo Financiero Actinver	1	1	1			1	4
Intercam Grupo Financiero	1	1	1			1	4
Banregio Grupo Financiero	1	1				2	4
Grupo Financiero Base	1	1	1				3
Grupo Financiero Santander	1	1	1				3
Total	21	21	17	6	3	39	107

^V Considera empresas de servicios complementarios, Sofomes (ER y ENR), Operadoras de Fondos de Inversión y Afiliés

Source. Comisión Nacional Bancaria y de Valores (National Banking and Securities Commission), 2022.

History of Actinver and Business Model

Corporación Actinver, S.A.B. de C.V. is a Mexican society founded in July 2004, as a result of the split of Actinver-Lloyd, an operator of investment societies launched in September, 1994. It is a holding share company that offers its services and products through their main subsidiaries, whether direct or indirect: (i) Grupo Financiero Actinver, (ii) Banco Actinver, (iii) Operadora Actinver, (iv) Actinver Casa de Bolsa, and (v) Arrendadora Actinver (2021 Annual report).

In 1994, Actinver was authorized to start operations as Operating Society of Investment Societies, and three years later they started their geographic expansion with the opening of financial centers in Monterrey, Puebla, and Veracruz. In 2001, they started their acquisition process that enabled them to consolidate their growth, as well as their products and services catalogue (Actinver, 2022). Table 2 shows the acquisitions made by Actinver between 2001 and 2014.

Table 2. Acquisitions made by Actinver between 2001 and 2014.

Year	Acquisition
2001	Finacorp, Operating Society of Investment Societies
2004	Casa de Bolsa Bursamex (Brokerage Firm)
2006	Operadora de Fondos Lloyd, Operating Society of Investment Societies
2007	Actinver Securities, Brokerage Firm in the United States
2009	Prudential Bank and Prudential Financial Operator of Investment Societies
2011	Pure Leasing, S.A. de C.V. (51 %)
2012	Asset Banking of American Express Bank México LyonRoss Capital Management (26 %)
2014	Pure Leasing, S.A. de C.V. (remaining 49 %)

Source. Actinver, 2022.

Figure 2. Assets held in custody in billions of pesos by December, 2021.

The company was constituted as *Grupo Financiero Actinver*, and it lists stocks at the Mexican Stock Exchange since May 2010. As can be observed in Figure 2, the growth of its assets in management and custody has maintained a steady growth, and by the end of 2021, they had \$524 billion pesos¹ (MXN) in Management and Custody Assets. This was the result of their organic growth through time and of the ability to make strategic acquisitions.



Source. Actinver corporate presentation, 2022.

With the purpose of offering integral consultancy to their private banking and investment customers, Actinver's investment banking business model promotes the constitution and consolidation of a share holding financial corporation that includes, among other minor companies, a financial group (constituted by a brokerage house, a funds operator, and a bank); a broker dealer in the United States (USA), a lessor, and an insurance broker. Thus, the Mexican *Actinver* offers products and services in the management of financial assets, investment funds, brokerage services, private banking, commercial banking, investment banking, fiduciary services, leasing, and insurance. The corporate structure, vertically integrated, and their assistance model in private banking and investment banking, enable them to offer their clients, in one place only, a wide range of solutions to meet their financial needs and achieve their investment goals (2021 Annual report).

Constitution of Afore Actinver

In 2003, the CONSAR's Governing Board authorizes the organization and operation of *Afore* (retirement management funds), *Actinver*, and *Siefore Actinver 1*, S.A. de C.V., thereby joining the other 11 managers entrusted with the retirement savings of workers in Mexico.

Acquisition of Bursamex, S.A. de C.V., Casa de Bolsa (Brokerage House)

In 2004, there was the acquisition of the entirety of the representative shares of the social capital of *Bursamex*, S.A. de C.V., *Casa de Bolsa* (today, *Actinver Casa de Bolsa*), which were property of IPAB (Institute for Bank Savings Protection), through public bidding.

In September 2006, *Actinver Casa de Bolsa* starts offering investment banking services. Up until now, *Actinver Casa de Bolsa* has participated in different takeover debt or equity security bids, in their position as leader, co-leader, or member of the underwriter syndicate (including public offers of issuers of shares like OMA, FINDEP, MEGA, BOLSA, ICA, and CEMEX, among others).

In January 2007, *Actinver Casa de Bolsa* obtained the authorization of *Banco de México* (BANXICO) to operate derived financial instruments: swaps, options, futures, and other operations in the Derived Mexican Market, MexDer. Furthermore, as part of their commercial strategy, *Actinver Casa de Bolsa* entered the fiduciary services market.

¹ \$1 MXN= \$0.05143 USD. Consulted on November 10, 2022 in <https://www.x-rates.com/calculator/?from=MXN&to=USD&amount=1>

Actinver's Mission, Vision, and Strategic Plan

Actinver's Mission is "to help our clients to invest better and earn more", and their Vision is "to be the head advisor of people and companies in Mexico". In order to achieve their Mission and Vision, the issuer has defined a number of goals and strategic plans oriented to improve customer satisfaction, base of their growth and success.

The major pillars of the issuer's strategy go through the alignment of the client's organization, showing them one face only, achieving high performance in the implementation and in the results of the customer's investment portfolio. To this end different plans have been defined, like

- Clients and consultants segmentation
- Identification and use of competitive advantages
- Identification and simplification of key processes for the client
- Integrated offering of products
- More intermediation
- The client's good experience should attract new clients
- Maintaining leadership in key segments of the business
- Venturing into new areas and business opportunities

The purpose is for the plans to be executed with the integration and consolidation of a team of professionals of the highest capacity and experience, with a culture that is oriented to the integral satisfaction of the client (2021 Annual report).

Actinver's Goals and Proposal

Some of *Actinver's* main goals that make up the basis of their value proposition in the last few years are:

- a) To continue the growth of their private banking and investment banking businesses, mainly through their business lines of assets management, private banking, commercial banking, and other emerging areas, to increase profitability.
- b) To increase their current customer base through an integral, personalized, specialized assistance, with clients and consultants segmentation, as well as a review process that is significant for the client, everything oriented to improving their experience in *Actinver*.
- c) To expand their range of products and services towards other related sectors to achieve an adequate mix, thus, an optimal combination of assets.
- d) The promotion and sale of cross products that provide financial solutions to customers, improve their satisfaction, expand intermediation and profitability.
- e) Increase their profitability through efficient resource management, intensification of the distribution network and customer service platforms, as well as in the deepening of intermediation.

Actinver's Innovation

Regarding innovation, the issuer has been characterized as a leading company in the launching of new products and services of investment societies, thanks to the flexibility provided by their highly qualified management team and the capacity to promptly identify new needs and business opportunities. Among others, *Operadora Actinver* introduced to the market the first investment fund of indexed variable income outside Mexico, known as *Actidow* or the *ActinMO* fund, a fund that specifically invests in values issued by infrastructure trusts and real estate.

In their investment funds offer they have incorporated some that include insurance, others related to high tech and artificial intelligence, as well as complements by way of the so called ETF's. They offer funds and investment instruments with different strategies, for instance those that intend to protect the investor from the volatility that has characterized markets in times of uncertainty. They have packaged products, with different horizons and investment profiles. Alternatively, their goals investment product, that enables clients to choose from different investment strategies, which go from protection, growth, the creation of value, up to investment opportunities for profiles of higher acceptance to risk and terms.

Additionally, as part of their development and innovation of new products strategy, the issuer has held partnerships with world-class firms in order to offer their clients the opportunity to invest in markets abroad and in the national market through the creation and implementation of new investment fund products.

The *Bursanet* electronic platform also allows for the opening of an investment contract from the comfort of each client's personal computer. This gives access to new clients to capital market operations, public offerings, money market operations, and others without the need to carry out the corresponding movements through a consultant or a financial center.

The new DINN platform, targeted towards a client profile who is usually young, is one of the most recent innovations.

Figure 3. *Actinver* is a 100% Mexican group specialized in investment management.



Source. Photograph of energepic.com in Pexels, 2016.

Actinver's Main Products

Among the main products offered by *Actinver* we find²:

- Assets Management and Administration: throughout 2021, this business line represents 35% of *Actinver's* income that mainly include investment funds, area in which *Operadora Actinver* is ranked in the fifth place among the country's largest investment fund operators, with \$191 billion pesos * (MXN) in managed assets (2021 Annual report).
- Intermediation products: they include the products and services related to investments and money desk operations, capital desk, trading desk, derivatives desk, and *Bursanet*, the online operation platform for non-advised clients. These business lines represent 32% of the 2021 revenue (2021 Annual report).
- Credit and Leasing: credit revenue represents 11% of the 2021 income, and leasing 5%. The Credit and Leasing Portfolio came in at \$27.6 billion pesos (MXN) (1MXN=\$0.05143 USD; X-rates, 2022), at the end of 2021, a number 10% higher than that at the end of 2020. The delinquency rate (IMOR in Spanish) came in at 2.13%, very similar to that of the industry, while the Coverage Rate (ICOR in Spanish) reached 1.3 times, in line with the industry's requirements (2021 Annual report).
- . Other products: fiduciary services or insurance, for instance: they complement the client's offer and diversify their income.

Actinver's Organizational Structure

The issuer has two great business lines and its subsidiaries and the suppliers of products and services:

- Private banking: engaged in the attention and counseling of natural persons; their main platforms are *Actinver Casa de Bolsa* and *Banco Actinver*, which in turn are the main distributors of *Operadora Actinver's* investment funds. As part of these platforms, a wide array of customized products and services are offered. Clients have access to operations of capital desks, money, exchange and derivatives, counseling services, counseling services regarding insurance, fiduciary, social security, debit cards, cheque books, credit and leasing, among others (2021 Annual Report)
- Investment banking: through the brokerage house and banking platforms, *Actinver* caters to legal persons, institutional clients, small-, medium- and large companies that need counseling services, financial products, credit, transactional services in exchange markets, money, capitals, derivatives or investment funds, debt or capital emissions. According to the Bloomberg platform, investment banking remains as one of the main bankings. The main functions of investment banking are corporate promotion with customized attention and service. Another activity of this business line is the structuring and placement of capital value and debt in the Mexican market. Thanks to the distribution network and clients of the issuer, investment banking has the capacity to broadly pulverize the placements it participates in (2021 Annual report)

Throughout its history, the issuer has been building, acquiring, and/or developing the necessary corporate infrastructure to integrate an investment bank model in Mexico. It has profited from the opportunities of participating in different markets, at different times, and it has also divested from the non-strategic. As an example of divestment is the sale of *Afore Actinver* to *Metlife* in 2008 (*Actinver*, 2022).

² The following text is of informative character and the list of all the funding it operates is not regarded as necessary, neither is its composition, given its variability.

The market needs and its evolution, the development of a business model according to the strategic plan, as well as the commitment to customer service, have led the issuer to develop a business platform that provides a wider array of needs and brings financial solutions under one roof.

In 2021, Actinver catered to their over two hundred thousand clients, with over two thousand employees, around 600 consultants, with 48 financial centers located in 22 states across the Republic.

Dated on March 11, 2021, through an ordinary and extraordinary annual shareholders general assembly, it is approved that the company adopts the regime of “sociedad anónima bursátil de capital variable” (public stock corporation with variable capital), with the corresponding statutory reforms. As a result of these modifications, the company name is changed to the current *Corporación Actinver*.

Figure 4 presents a simplified organization chart with the main companies that make up the organizational structure of *Corporación Actinver*.

Figure 4. Organization chart with the main companies that make up the organizational structure of *Actinver*.



Source. Presentation for investors, second quarter, 2022.

Actinver's Financial Statements

Next, the summary of *Actinver's* Balance up to the third quarter of 2022 and 2021 is shown.
(1MXN=\$0.05143 usd; x-RATES, 2022).

RESUMEN DEL BALANCE GENERAL

ACTIVO	3T22	2T22	3T21	Variación %	
				2T22	3T21
Disponibilidades	8,628	5,148	6,373	68%	35%
Inversiones en Valores	50,612	47,985	65,600	5%	(23%)
Total Cartera de Crédito (Neto)	27,527	26,504	25,326	4%	9%
Otras Cuentas por Cobrar (Neto)	8,118	2,909	13,482	179%	(40%)
Total Activo*	103,174	90,708	115,882	14%	(11%)
Pasivo	3T22	2T22	3T21	2T22	3T21
Captación	45,928	47,508	31,391	(3%)	46%
Acreedores por Reporto	29,108	20,769	59,059	40%	(51%)
Otras Cuentas por Pagar	9,849	3,721	11,026	165%	(11%)
Total Pasivo*	95,649	83,618	109,068	14%	(12%)
Capital Contable	3T22	2T22	3T21	2T22	3T21
Capital Contribuido	1,865	1,678	1,678	11%	11%
Capital Ganado	5,647	5,402	5,117	5%	10%
Total Capital Contable*	7,525	7,090	6,814	6%	10%

* Incluye todas las cuentas del Activo, Pasivo y Capital, respectivamente

Source. Press release third quarter Actinver, 2022.

The following information presents the summary of *Actinver's* balance of the third quarter in 2022 and the third quarter in 2021(1 MXN= \$0.05143 USD; X-rates, 2022).

RESUMEN DEL ESTADO RESULTADOS CONSOLIDADO

CONCEPTO (mdp)	3T22	2T22	3T21	VARIACIÓN VS 2T22		VARIACIÓN VS 3T21		2022	2021	VARIACIÓN ANUAL VS. 2021	
				\$	%	\$	%			\$	%
Ingresos por intereses	2,086	1,735	1,390	351	20%	696	50%	5,365	3,932	1,433	36%
Gastos por intereses	(1,688)	(1,349)	(1,043)	(340)	25%	(646)	62%	(4,211)	(2,988)	(1,223)	41%
Margen Financiero	398	386	347	11	3%	51	15%	1,154	944	210	22%
Estimación preventiva para riesgos crediticios	(29)	(118)	8	89	(76%)	(37)		(133)	(9)	(124)	
Margen Financiero Ajustado por riesgos crediticios	369	268	355	101	37%	14	4%	1,022	935	86	9%
Comisiones y Tarifas Netas	803	765	793	38	5%	10	1%	2,378	2,253	126	6%
Resultado por intermediación	294	214	262	80	37%	31	12%	716	663	53	8%
Otros ingresos (egresos) de la operación	65	43	15	23	53%	50	324%	99	215	(116)	(54%)
Gastos de administración y promoción	(1,112)	(1,132)	(1,078)	20	(2%)	(34)	3%	(3,378)	(3,126)	(252)	8%
RESULTADO DE LA OPERACIÓN	419	158	347	261	165%	72	21%	837	940	(103)	(11%)
Margen Operativo	27%	12%	24%	1,511 pb		300 pb		20%	23%	(326pb)	
RESULTADO NETO CONTROLADORA	288	97	237	191	196%	51	22%	552	641	(89)	(14%)
Margen Neto	19%	8%	17%	1,129 pb		220 pb		13%	16%	(267pb)	
INGRESOS TOTALES*	3,325	2,849	2,553	475	17%	772	30%	8,830	7,332	1,498	20%
Ingresos Operativos antes de Estimación preventiva para riesgos crediticios**	1,559	1,408	1,417	152	11%	142	10%	4,348	4,074	273	7%
Estimación preventiva para riesgos crediticios	(29)	(118)	8	89	(76%)	(37)		(133)	(9)	(124)	
INGRESOS OPERATIVOS NETOS**	1,530	1,290	1,425	241	19%	105	7%	4,215	4,066	149	4%

Notas:

INGRESOS TOTALES: Ingresos por intereses, más comisiones y tarifas cobradas, más resultado por intermediación más otros ingresos de la operación.
 INGRESOS OPERATIVOS: Ingresos Totales menos gastos por intereses, menos estimación preventiva para riesgo crediticios, menos comisiones y tarifas pagadas.

Source. Press release third quarter Actinver, 2022.

The most important expenses for a financial institution like *Actinver* are their interest expenses and management and promotion expenses.

General profiles of Actinver's investor

Regarding the Vision of *Corporación Actinver, S.A.B. de C.V.*, the fact that their clients achieve investment goals depends on many factors, most of them hard to control. It is enough to analyze the performance, since the beginning of the pandemic until today, of the different indexes of the most important Stock Exchanges to understand that reaching decisions is not simple. **Figure 5** shows the market's volatility index (VIX).

Figure 5. Volatility Index (VIX) measured in percentage points in the last year.



Source. Chicago Board Options Exchange, 2022.

Knowing the client's risk profile, knowing how the different financial assets that can be accessed operate, and the way of managing the risk of each portfolio can be decisive in the final outcome.

Taking into account the financial literacy in Mexico, the existing regulations, and *Actinver's* history with their clients, three general investor profiles have been defined at the issuer, based on the risk each is willing to take.

- Conservative: invests in instruments with the lowest possible risk as they are more worried about the safety of their investment.
- Moderate: looks for higher profits, nevertheless, they must assume a moderate risk.
- . Aggressive: looks for higher profits which forces them to assume much higher risks.

On January 9, 2015, the *Comisión Nacional Bancaria y de Valores* (National Banking and Securities Commission) published at the Official Gazette of the Federation (Secretaría de Gobernación, 2015) general provisions applicable to the financial entities and other persons who provide investment services. In Annex 3 of given provisions, the elements to determine the client's profile in mentored investment services are specified. Some of these elements are, for instance, the client's knowledge and experience, their situation and financial capacity, and their investment goals (Secretaría de Gobernación, 2016). Thus, it is common to apply a questionnaire as a tool that aims at establishing the profile of each of their clients, and each institution is in charge of making their own.

"These simple questions will suggest the type of investor you are and will determine which portfolio adjusts better to your profile so you can start investing as soon as possible" (Perfilador Bursanet, 2021).

Two factors are considered:

Investment horizon: is the time you have thought about leaving your money invested before making withdrawals or completing a goal.

Volatility: price and performance variations that different investment instruments can have.

Figure 6. Questions associated to establish the investor's profile using the *Bursanet* © profiler

The image displays five sections of a questionnaire, each with a title and a progress indicator at the bottom.

- Section 1: HORIZONTE DE INVERSIÓN**

1) Invertiré y tengo planeado hacer retiros a partir de:

Options: A) Menos de un año, B) De 1 a 3 años, C) Más de 3 años, D) Indefinido.

Progress: 20% de avance
- Section 2: HORIZONTE DE INVERSIÓN**

2) Estaría cómodo pensando que tendré rendimientos si invierto mi dinero en un periodo de:

Options: A) Menos de un año, B) De 1 a 3 años, C) Más de 3 años, D) Indefinido.

Progress: 40% de avance
- Section 3: VOLATILIDAD**

3) Considero que mi experiencia como inversionista es:

Options: Nada, Poca, Buena, Avanzada.

Progress: 60% de avance
- Section 4: VOLATILIDAD**

4) ¿En cuáles de estos instrumentos has invertido?

Options: A) Ninguno, B) Fondos de inversión, C) Acciones en directo o reportos, D) Todos los anteriores.

Progress: 80% de avance
- Section 5: VOLATILIDAD**

5) Imagina el siguiente escenario:

En tres meses, el mercado de valores baja el 25% en su valuación y tu portafolio tiene esa pérdida. ¿Qué harías?

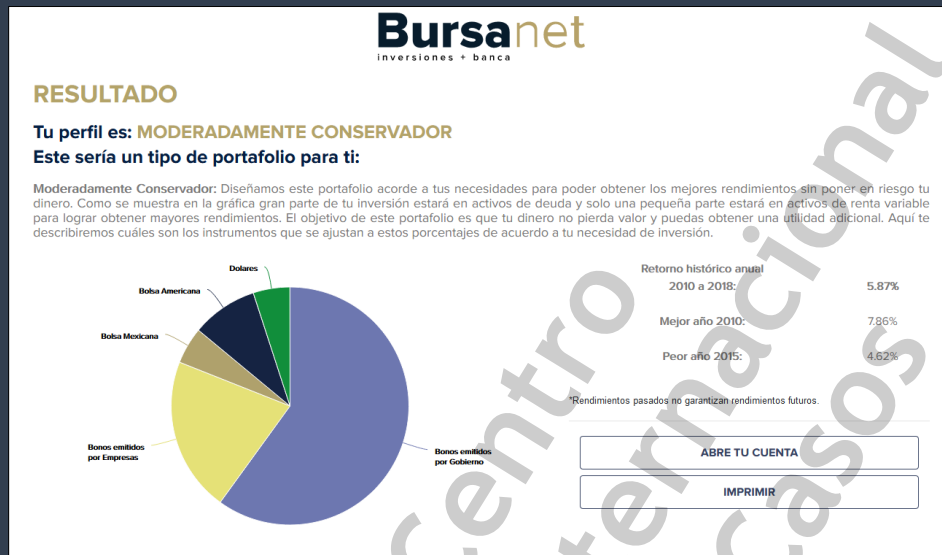
Options: A) Vendo todo, B) Vendo una parte, C) Esperar, D) Comprar más.

Progress: 99% de avance

Source. Bursanet Activer Profiler, 2021.

Once the potential investor answers these questions, the platform will deliver a client profile. Figure 7 shows an example of the result given through the questionnaire.

Figure 7. Example of the result of a client profile using the *Bursanet* © Profiler.



Source. Bursanet Actinver Profiler, 2021.

Next, you can find the link to go through the [questionnaire](#) and get to know the investor's profile previously presented.

From a regulations point of view, in order to establish the investors' profiles previously mentioned and offer their products, *Actinver* is regulated by the following financial authorities:

- SHCP (Secretaría de Hacienda y Crédito Público) - <https://www.gob.mx/shcp>
- Banxico (Banco de México)- <https://www.banxico.org.mx/>
- CNBV (Comisión Nacional Bancaria y de Valores) - <https://www.gob.mx/cnbv>
- CONSAR (Comisión Nacional del Sistema de Ahorro for el Retiro) - <https://www.gob.mx/consar>
- CNSF (Comisión Nacional de Seguros y Fianzas) - <https://www.gob.mx/cnsf>
- IPAB (Instituto for la Protección al Ahorro Bancario) - <https://www.gob.mx/ipab> y
- la CONDUSEF (Comisión Nacional for la Protección y Defensa de los Usuarios de Servicios Financieros) - <https://www.gob.mx/condusef>.

Market Information

Operadora Actinver (<https://www.actinver.com/web/actinver/casa-de-bolsa>) has a platform of products and services that has enabled it to differentiate its brand and gain recognition in the market. According to the numbers published by the AMIB ([Asociación Mexicana de Instituciones Bursátiles](#)), (The Mexican Association of Securities Intermediaries), *Operadora Actinver* is the fifth largest investment fund operator in the country, with over \$191 billion pesos (MXN) in administration (1 MXN= \$0.05143 USD; X-rates, 2022), at the end of 2021. By the same date, also based on AMIB's numbers, *Actinver Casa de Bolsa* is ranked second in the country regarding number of clients, with over ninety-five thousand accounts (2021 Annual report).

The issuer has a unique business model focused on offering customized services; their platform is integrated to be able to present customized services and products under the same roof to meet the clients' financial needs. The more than \$520 billion pesos (MXN) in assets under custody up to December 2021, concentrated by *Actinver*, are the result of their organic growth throughout time and of the ability to make strategic acquisitions according to their business plan.

The Mexican Financial System

The Mexican Financial System is currently made up by multipurpose bank institutions, development banking, brokerage firms, and other financial entities like insurance companies, reinsurers, surety companies, credit unions, savings and loan societies, exchange bureaus, factoring companies, general deposit warehouses, financial lessors, mutual societies, retirement funds managers, and multiple purpose financial societies, among others.

The Banking System in Mexico

According to information of the *Comisión Nacional Bancaria y de Valores* (CNBV) (National Banking and Securities Commission), today the Mexican Banking System has 50 registered entities. At the end of 2021, these institutions have a total credit portfolio of \$5.5 trillion pesos (MXN), which reflects a compound annual growth rate (CAGR) of 6.3% from 2015 to 2021.

Investment Funds

The investment funds Mexican market has 30 operators that manage \$2.8 trillion pesos (MXN) by the end of 2021. *Actinver*, with 7% of the total assets of the sector, is ranked in 5th place.

Stock Market

Operadora Actinver is competing with other 35 exchange bureaus authorized by the SHCP (Ministry of Finance and Public Credit) to carry out intermediation operations in the Mexican stock market. Among other, the operator carries out purchase and sales operations and securities report; counseling provision services to investors related to securities investments; counseling provision services to mercantile companies and other entities related to securities operations and in financing terms; and carrying out securities transactions through the Stock Exchange electronic systems.

According to AMIB, *Actinver* is one of the five main competitors in the securities intermediaries market, where *Inbursa*, *BBVA-Bancomer*, *Banorte*, and *GBM*, are the most important participants, as between them, 75% of securities in custody are concentrated (2021 Annual report).

Financial Literacy in Mexico

For any institution that offers financial products it is essential to know and/or establish their clients' profile, so any information on the subject is useful for them to offer the right products for each. In April 2019, the "Comisión Nacional Bancaria y de Valores" (CNBV) (National Banking and Securities Commission), published the results of the Financial Inclusion National Survey (Comisión Nacional Bancaria y de Valores, 2018) applied in 2018. The ENIF includes questions targeted at the adult population (18 to 70 years old), that seek to obtain information about their knowledge, behaviors, and financial attitudes. With the data obtained, the financial literacy index for Mexico is being built, considering:

Financial knowledge: this enables the understanding of financial concepts and the making of numerical calculations that help make financial decisions about topics like the value of money in time, interest rates, return, inflation, and diversification.

Financial behavior: this sub-index is in turn divided into financial control (budget, punctual payment of credits), financial resilience, and informed decision-making.

Financial attitudes (comparing decision-making in the present regarding the future).

Some of the results obtained in the survey are shown in Tables 3,4,5,6,7, and 8, considering the three criteria mentioned above.

Table 3. Financial literacy index for Mexico (general).
Source. Comisión Nacional Bancaria y de Valores, 2019.

Table 4. Financial literacy index for Mexico (por sexo).

	SUBÍNDICES (0 a 100 puntos)			Índice de alfabetización financiera
	Conocimientos financieros	Comportamientos financieros	Actitudes financieras	
HOMBRES	67.40	49.20	64.30	58.80
MUJERES	64.30	47.30	65.60	57.30

Source. Comisión Nacional Bancaria y de Valores, 2019.

Table 5. Financial literacy index for Mexico (by education level).

AÑOS DE EDUCACIÓN	SUBÍNDICES (0 a 100 puntos)			Índice de alfabetización financiera
	Conocimientos financieros	Comportamientos financieros	Actitudes financieras	
Menos de 6	50.80	38.60	65.20	49.00
De 6 a 9	63.50	44.20	65.30	55.70
De 10 a 12	69.20	50.30	64.00	59.90
Más de 12	75.70	59.60	65.10	66.30

Source. Comisión Nacional Bancaria y de Valores, 2019.

Table 6. Financial literacy index for Mexico (by monthly income).

SALARIO MÍNIMO MENSUAL	SUBÍNDICES (0 a 100 puntos)			Índice de alfabetización financiera
	Conocimientos financieros	Comportamientos financieros	Actitudes financieras	
Sin ingresos	63.00	44.30	65.30	55.50
Hasta 1 s.m.	59.60	43.40	66.90	54.40
De 1 a 4 s.m.	67.20	48.80	64.10	58.60
Más de 4 s.m.	74.20	63.50	66.20	67.70

Source. Comisión Nacional Bancaria y de Valores, 2019.

Nota: "s.m." is the abbreviation for "minimum salary".

Table 7. Financial literacy index for Mexico (by level of financial inclusion).

NÚMERO PRODUCTOS FINANCIEROS	SUBÍNDICES (0 a 100 puntos)			Índice de alfabetización financiera
	Conocimientos financieros	Comportamientos financieros	Actitudes financieras	
Ninguno	61.00	40.30	65.60	53.20
Solo 1	64.00	45.50	64.00	56.10
De 2 a 3	68.30	50.60	64.10	59.70
Más de 3	72.90	61.90	66.40	66.60

Source. Comisión Nacional Bancaria y de Valores, 2019.

Table 8. Financial literacy index for Mexico (by town size).

TAMAÑO LOCALIDAD	SUBÍNDICES (0 a 100 puntos)			Índice de alfabetización financiera
	Conocimientos financieros	Comportamientos financieros	Actitudes financieras	
Menor a 2,500 hab.	58.20	41.60	66.20	53.00
2,500 a 14,999 hab.	62.60	47.30	64.30	56.40
15,000 a 99,999 hab.	66.20	48.60	63.60	58.00
100,000 y más hab.	69.70	51.00	65.00	60.60

Source. Comisión Nacional Bancaria y de Valores, 2019.

Nota: "hab." is the abbreviation of "inhabitants".

Benchmark

The instruments of lower possible risk are associated to debt instruments issued by the governments, in this case by the Mexican Government, which offer returns as of an objective interest rate established by *Banco de México*, according to the current monetary policy.

Sharpe ratio

One of the measures of risk-adjusted return most commonly used in financial markets is the *Sharpe Ratio* designed by William F. Sharpe. The idea underlying the *Sharpe Ratio* is to combine risk and return of a financial asset and the risk-free rate. For this, the difference between the portfolio return and the risk-free rate is divided by the risk measured as of the standard deviation.

The *Sharpe Ratio* formula is the next:

$$\text{Sharpe Ratio} = \frac{R_p - R_f}{\sigma_p}$$

Where

R_p = Portfolio return

R_f = Risk-free return

σ_p = Portfolio's standard deviation

Value at Risk (VAR)

In risk management, one of the most common metrics used is Value at Risk (VAR). These metrics calculates the minimum loss with a certain level of confidence over a predetermined time frame. Sometimes it is taught that it is the maximum loss, which technically is not incorrect, as the maximum loss in 95% of the years is the minimum loss throughout the other 5%.

The VAR formula is the next:

$$VAR_p = R_p - (Z \times \sigma_p)$$

Where:

VAR_p = Portfolio's value at Risk

R_p = Portfolio's return

Z = The corresponding value to the confidence level of the calculation (90 % = 1.28; 95 % = 1.65; 99 % = 2.33)

σ_p = Portfolio's standard deviation

The decision

Andrea is not well informed about investments, but she must make a decision this week on whether to accept the recommendations of *Actinver's* wealth manager, or if she should request adjustments to the proposals to start a long-term investment relation with this company. Being an investment with risk, Andrea believes that the benefit obtained from the investment should compensate for the risk she is taking. To a large degree, her decision to accept the investment will depend on the profits presented by the financial advisor for the investment term planned. What should be Andrea's decision to *Actinver's* wealth manager regarding the proposals she is being presented?

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