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PERSONAL FINANCE AND INVESTMENTS IN MEXICO

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Abstract: The objective of this work is to become a tool that allows informing and promoting financial education in Mexico. It provides some simple tips in order to improve personal finances and introduces fundamental investment concepts. The work begins by offering three simple tips to improve personal finances. Then some basic investment concepts are presented, to later explain the fundamental ideas necessary to start investing. Below, some of the most common investments in Mexico are briefly explained, giving great importance to passive management and ETFs. Finally, how the stock market works is briefly explained. The general recommendation of this article is that, regardless of personal income or economic situation, it is possible to invest and take care of our resources in order to achieve our financial goals in the short, medium and long term, and thus improve our quality of life.
Keywords: Finance, Investment, Action, Stock Market, Diversification.

INTRODUCTION

In the difficult times we are experiencing, it has become clearer than ever that it is necessary to be prepared for emergencies and have a solid personal economy. The topic of finances is fundamental in the daily lives of all people without exception, since everyone manages the money they obtain or earn in one way or another. For this reason, it is of utmost importance to have a certain level of financial education and know basic investment concepts. However, in the current educational system in Mexico, topics related to personal finances and money management are rarely taught. Issues such as; How much will I pay for a loan? How much will I earn from an investment? How to know the degree of risk of an investment? How to pay less taxes? What do I need to know to start investing? What is the best way to invest? Where can I invest? How to obtain good returns? or simply How can I save more? This article answers all these questions, describes some of the most common and safest options for investing in Mexico, and gives the necessary guidelines to start making money work for us, and not the other way around.

METHOD DESCRIPTION

SIMPLE TIPS TO IMPROVE PERSONAL FINANCES

USE CREDIT RESPONSIBLY

Having a credit card can be a good thing if you know how to use it. It is mainly used for emergency cases, since it allows payments to be made several days after using it. It also allows you to create a good credit history, which will allow you to obtain greater loans with better conditions in the future (lower rates) [1].

It is important to clarify that using and paying a credit card is not the same as requesting financing for several months with it. That is, get into debt. You must be very careful with the latter, since credit card rates are very high. The most important thing to know about having a credit card is [2]:

- Days of the period, taking into consideration the cut-off date.
- Average balance, debt
- Rate (whether annual, monthly, etc.)

The total to be payed after a period is equivalent to:

Average balance * rate

You must definitely avoid making payments with interest. The most important thing is to manage yourself well and know how much you spend and what the cut-off date is.

TAX DEDUCTION

You can save by filing an annual tax return, because this generates a deduction, that is, we get our tax money back [1]. For this, you must know that some expenses have this quality; tuition, medical expenses or retirement savings plans and must be included in the declaration. Not everyone is required to file a tax return, but everyone can do so, if any of the expenses mentioned above are incurred, so that we can get money back or a credit balance.

Example:

From a salary of $10,000 per month, annual income is $120,000, assuming tax-deductible expenses were $20,000 throughout that year. In the end, the taxes deducted from the salary are not based on the 120,000 pesos, but only on the difference. That is, over 100,000 pesos.

Difference: $120,000 (salary) – $20,000 (deductible expenses) = $100,000; charging taxes on this amount and *giving* back the taxes of the $20,000.

A STRATEGY TO SAVE MORE

This strategy consists of, when a salary increase is received, no matter how small it may be, a certain percentage of that increase is allocated to savings, so that it does not feel like a reduction in income.

For example:

From a salary of $10,000 pesos, you start earning 20% more. That is, 2000 pesos more. If from the beginning or before beginning to receive this increase it is established that 50% of this increase will be saved, the result is that the salary received will be $11,000 pesos, and $1,000 pesos will go directly to a savings account, so you won't feel like a loss in the amount of income.

INVESTMENT BASICS

TYPES OF INCOME

- Active income.- They are generated as long as recurring and fixed hours of work are dedicated.
- Passive income.- Income is generated on a recurring basis, even if it is no longer worked, it is a result of the past. It requires that time, work and money have been invested previously. Investments are passive income. Regardless of the salary, you can start having sources of passive income.

To start having passive financial income you need money. However, there are very affordable amounts to start with. There is also non-financial passive income. Some examples are; royalties, books, software, courses, room rental, sale of products on the Internet, etc.

DIFFERENCE BETWEEN SAVING AND INVESTING

Due to inflation, purely saved money loses value over time, but by investing the value increases, a good investment must at least outperform inflation [3]. The reason the value of invested money increases is called *compound interest*. Which is a wonderful phenomenon that allows you to multiply the amounts invested. Compound interest consists of reinvesting the initial capital plus interest, which in turn produces more interest, becoming a beneficial cycle for the investor.

COMPOUND INTEREST FORMULA

Compound interest = Amount * $(1 + \text{Rate}\%)^N$

Where N = number of years invested

Example:

$\$10\,000 * (1 + 10\%)^{35} = \$281\,024$

By leaving the amount invested for many years, very interesting results can be obtained. But you have to pay attention and special care that the same effect applies to debts. Without much effort you can save, invest and earn a lot, with effort real miracles are done. Even with an appropriate strategy, with effort, perseverance and dedication, you can reach a point where you can live off of investments, what many call financial freedom and this can also be estimated [4].

IMPORTANT CHARACTERISTICS OF INVESTMENTS

- Time is very important.- Since each year you earn more, as seen in the compound interest equation, the longer an amount is left invested, the greater the final profit will be.
- Recurrence effect.- If in addition to the initial capital of the investment, a certain amount is contributed to the investment from time to time, the return (profit) increases much more.
- For example, someone who starts without investing a large amount from the beginning, but saves 100 pesos every day (36,500 per year) and allocates them to his investment, with a rate of 7%, will save 504,300 in 10 years, and in 16 years old will reach a million pesos.
- Rate effect.- The higher the investment rate, the greater the return obtained, 1% more rate makes a lot of difference.
- Liquidity.- Refers to the ease of having the invested money, since in many investments a period must be met. If the money cannot be withdrawn from the investment easily, the investment is said to be illiquid.
- Risk.- All investments carry a certain level of risk that their value may decrease, or that they may be lost completely. In

addition, there are several types of risks, but in general terms, if the investment in question is backed by some solid entity, such as a large bank or the government of a country with a strong economy, the risk associated with it is lower.

START INVESTING

WHAT IS THE BEST TIME TO INVEST?

It is always a good time, the sooner the better, due to the time factor.

EARNINGS FROM AN INVESTMENT

Similar to a credit card, the profit on a personal investment is calculated by multiplying the initial amount by the interest rate:

Annual interest (profit) = amount * annual rate%

Example: $10 000 * 10% (0.10) = $1000

Interest per days = amount * annual rate% * #days/360

Example: $10 000 * 10% (0.10) * 90/360 = $250

However, many investments have taxes, and these must be subtracted from the final profit. Depends on the type of instrument:

Interest per days = amount * (annual rate% - taxes%) * #days/360

Example: $10 000 * (10% - 1%) * 90/360 = $225

If the investment lasts several years or cycles, the effect of compound interest comes into play and the amounts grow exponentially.

QUANTIFY THE RISK OF AN INVESTMENT

One of the main risks associated with an investment is its degree of volatility, that is, how much or little its value changes in a certain period of time. The larger these changes are, the more risky it is considered. To calculate volatility, standard deviations are used, a statistical calculation that estimates how the data moves around the average. Greater standard deviation = more risk.

Example:

The historical results of two investment options show that they have the same average annual return; 10%.

In option 1 the results are stable and close to the average: one year has a return of 9%, another 10% and another 11%.

In option 2 the results are volatile: one year there is a return of 10%, the next 5% and the next 15%.

As a result, the standard deviation associated with option 2 will be greater, indicating that it is riskier. There is a formula that allows you to compare two investment options with different characteristics, taking into account the volatility, return and rate risk [5]. Formula to compare investments that have different conditions:

$$Sharpe = \frac{Yield - Risk\ free\ Rate}{Standard\ deviation}$$

Risk-free rate → rate of the safest government investment in the country.

You must choose the option that has a greater *sharpe*

This is a simple way to select an investment, however, there are more aspects to consider when choosing the best option. It must also be considered that there are more types of risk; degree of liquidity, whether the entity backing the investment is certified or solid, whether the same conditions will be obtained when reinvesting at the end of the period, etc. It is important to always look at the risks, not just the returns.

HOW TO OBTAIN BETTER RETURNS?

A higher performance is associated with a higher rate. That is, the higher the rate, the greater the profits at the end of the period. Obtaining a higher rate, in general terms, depends on the following factors [6]:

- Longer term (length of investment period)
- Greater risk (investments such as stocks on the stock market are more volatile and therefore riskier, but offer higher rates).
- Lower availability (lower liquidity)
- Greater diversification. Do not invest in a single strategy or type of investment, but in a whole set of different investment alternatives with different characteristics. Don't put all your eggs in one basket.
- Greater knowledge. You must never invest in instruments that you do not know how they work. Be informed a lot.

ACTIVE MANAGEMENT VS PASSIVE MANAGEMENT

To start investing, you must know that there are two ways to manage investments:

- Active investment.- Investment instruments are constantly selected, bought and sold, a lot of knowledge is required and it is usually the type of investment offered by investment funds, brokerage houses and brokers, which is why they charge commissions for this. job.
- Passive investment.- It consists of *replicating* a stock market index and does not require constant or specialized administration, since the investment instruments are determined by the index.

Stock indices are indicators that represent the largest companies listed on the stock exchange of a certain country or sector and serve to know the historical performance, or how well that stock market or group of companies is doing in general. Some of the best known are:

- Dow Jones Industrial Average (United States)
- Standard & Poor's (S&P) 500 (United States)
- Nasdaq-100 (United States)
- Price and quotation index (Mexico).

As a personal recommendation: choosing passive type investments is the best option, since as investment eminences such as Ray Dalio, Jack Bogle or Warren Buffett himself indicate, investment funds very rarely exceed the performance of the market (of the indices).) in long periods of time, in addition to the fact that the commissions they charge represent a large loss in the final profits [4]. In addition to this, because the indices include several companies, the principle of diversification is complied with, making them safer and cheaper. A well-known rule is that no one can predict what will happen in the stock market, in addition to the fact that past results do not guarantee future results, so we must be especially careful with people or entities that promise extraordinary returns or say that they can predict changes. in stock prices.

TYPES OF INVESTMENTS

CONSERVATIVE INVESTMENTS VS RISKY INVESTMENTS

Every investment has some degree of risk associated with it, and of course some are riskier than others. But in general terms, it can be said that investments associated with governments with solid economies are considered safe, since it is much more difficult for an entire nation to go bankrupt than for a company to do so. Likewise, the most famous type of high-risk investment is stocks and other stock market instruments.

As mentioned above, riskier investments offer higher returns, so it is important to know how to select an appropriate percentage between conservative and risky investments. A very general rule states that, depending on age and taking into consideration 100 years of life, these percentages must be selected [4].

Example: if you are 30 years old; 30% in conservative investments and 70% in riskier investments. If you are 60 years old; 60% in conservative investments and 40% in higher risk investments.

This is because there is more time to recover from losses, because the stock market, although variable and volatile, tends to always go up. But it all depends on each person's level of risk tolerance.

SOME OF THE MOST COMMON INVESTMENTS

- **Actions.**- Publicly traded, they represent a small part of a company's ownership and their value changes over time. You can earn income with them in two ways:
  - Capital appreciation.- Buy a cheap stock that can grow.
  - Dividends.- Many companies generate profits and distribute them among shareholders; the more shares you have, the greater the share you pay.
- **Fibers.**- They are similar to stocks because they are also listed on the stock market, they are certificates, trusts associated with real estate (residences, shopping centers, industrial warehouses, hotels, office buildings, etc.). You have access to the income generated from the rents of these real estate. There can be very diversified ones. They also have variation in price, like stocks, and capital appreciation.
- **FINTECH (Finance + Technology).**- It is a financial industry that applies new technologies to financial and investment activities. In Mexico they are regulated by the national securities banking commission.
- **Investment funds.**- Each investment fund is different and applies different strategies. One of the most important characteristics of investment funds is that the future rate is not known. Every day, instruments change price. Historical information may be known but future performance is not guaranteed. Important documents to review in order to choose an investment fund:
  - Information prospectus for the investing public
  - Key Document.
- **ETF.**- Exchange Traded Funds, for their acronym in English Exchange Traded Funds. They are funds that are listed on the stock market, but are invested indirectly (passive investment). Instead of choosing which companies to invest in, you choose which investment strategy to invest in.

MORE ABOUT ETFs

ETFs are purchased in a similar way to stocks on the stock market, but are not necessarily linked to them, as they can include many types of assets; bonds, raw materials, metals, etc. The performance of the ETF depends on how the investments within it perform. ETFs are generally indexed strategies. Indexed investments are passive strategies, because they only copy the same stocks or investments that an index contains [7]. An indexed ETF is highly diversified. Example: Vanguard S&P 500 (VOO), which replicates the US S&P 500 index. There are also inverse ETFs; when an asset goes down 10%, the ETF pays +10%, and conversely, if the same asset goes up 10%, the ETF pays -10%.

TRACs (Share-Referenced Securities) also replicate an investment strategy, but these are listed on the Mexican stock exchanges. For example, speaking of the CPI (Mexican index), there is a TRAC called NAFTRAC that replicates this index.

How to invest in Mexico?

In general, in Mexico you can obtain this type of instruments in the national market, even if they have been issued abroad, through the SIC (International Quotation System). They can be obtained at brokerage houses or through the internet. Afores are allowed to invest in these instruments.

STOCK MARKET

The stock market is a market where there are sellers and buyers who exchange money for investments. In this market, shares are mainly bought and sold, although there are more instruments [8]. Other names: stock market, equity market, capital market. It is one of the most regulated financial instruments and in the long term it can give very good results. Each country has one, or several stock exchanges. In Mexico there are two: Mexican Stock Exchange and International Stock Exchange (BIVA). The United States has several, including; New York Stock Exchange, NASDAQ, American Stock Exchange. In addition, there is a wide variety of companies to invest in (many stocks), NASDAQ has more than 3,300 stocks, including: Apple, Microsoft, Ebay, Intel, Netflix. In Mexico there are 139 companies listed, among them: Coca Cola, Semex, Bimbo, Televisa, Liverpool.

It is not difficult to buy and sell stocks. It can be done by phone, from an internet page or from an application. You can also buy shares on stock exchanges in other countries through a system called "International Quotation System". And not only stocks, but also other financial instruments from other countries. It depends on the regulations of each country.

Why does the stock price change? Due to 3 reasons:

- Company performance.
- Country or world economy.
- Psychological factors. Human beings have emotions, so sometimes we make unjustified purchases, euphoric purchases or panic sales. This issue can affect prices, especially in the short term, in a few days or a few weeks [9].

FINAL COMMENTS

CONCLUSIONS

Because having strong financial health is a basic need for any person, it is essential to manage our financial resources in the best possible way; study, compare options and of course invest. It is always a good time to start investing. Compound interest allows the profits of an investment to increase exponentially over the years, so it must be taken advantage of. Passive management is the best way to invest over long periods of time, a good option is through ETFs or index funds.

You must not invest in just one type of investment, that is, diversify. The stock market is a long-term instrument.

RECOMMENDATIONS AND CONSIDERATIONS ABOUT THE STOCK MARKET

- If you participate in the stock market, you must do so with an economic resource that will not be needed immediately.
- You can buy shares yourself, through an ETF or through a brokerage firm or broker. But if you open a contract at a brokerage house or with a broker, you

must always ask what commissions will be charged, because there are many types of these.

• All the money can be lost if the company goes bankrupt. Yes, it has happened, although it is rare, since the majority are solid companies. In any case, it is always important to diversify, make an adequate selection of companies and follow a good strategy. By following the above, good results are obtained in the long term.

• It is always a good time to invest. Throughout history, there have been moments of uncertainty (political, social issues or complicated economic situations like the one we are currently experiencing), but what depends most on investing or not is personal circumstances, that is, whether Have an amount that will not be needed in the short term and you have the possibility of leaving it invested for a long time, so that it appreciates in the future. Many people even take advantage of times of uncertainty to buy shares that are at a low price and in a few years have a good performance.

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