



STRATEGIC INVESTMENT TRADING MODEL FOREIGN EXCHANGE MARKET, STOCK INDICES, USING STATISTICAL SOFTWARE, COMPANY INVERQUITO SOCIEDAD AN ORNIMA IN THE ECUADORIAN SECURITIES MARKET LAW

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Summary: *The project aims to propose a strategic trading model to invest in the stock market of currencies and indices, so that the model generates profitability for investors. The model is composed of an intraday trading strategy designed based on stock market indicators, these being moving averages, parabolic sar, volume, zigzag indicator that determines the maximum and minimum prices of certain financial instruments. In addition to strategy the model consists of technical and fundamental analysis, risk management, decision making and trading plan. The financial instruments in which the results have been verified after applying the strategy for 12 months with a total of 500 results, 254 in indices and 246 in currencies are the parities EURUSD (Euro / US Dollar), GBPUSD (British Pound / US Dollar) and EURGBP (Euro / British Pound) as currency instruments, while as index instruments it has been applied to the NDQ100 (Nasdaq 100), US 30 (Dow Jones 30) and S&P500 (Standard and Poor's 500) indices. The results obtained and subsequently analyzed allowed to develop the proposal of the strategic trading model, properly structured, this being a model to help traders generate profitability according to agreement.*

Keywords: *trading, currencies, indices, strategy, analysis, risk, trading*

BACKGROUND

This document presents the proposal of a strategic trading model to invest in currencies and stock indices, from Ecuador for the company Inverquito, an entrepreneurship and investment academy that develops in three areas: training in financial markets, investment and entrepreneurship academy, and investment advisories.

At present there are no trading models to invest in the stock market in the form of intraday trading from Ecuador, its limited access to this type of information generates that investors (traders) do not generate profits and lose their invested capital.



Therefore, a strategic trading model is required that has the necessary elements to generate profitable trading operations, in order for investors in the currency and index stock market to generate profitability through the use of an efficient trading model. And consequently achieve consistency in day trading.

PROPOSED MODEL

The proposed model is structured with the following characteristics:

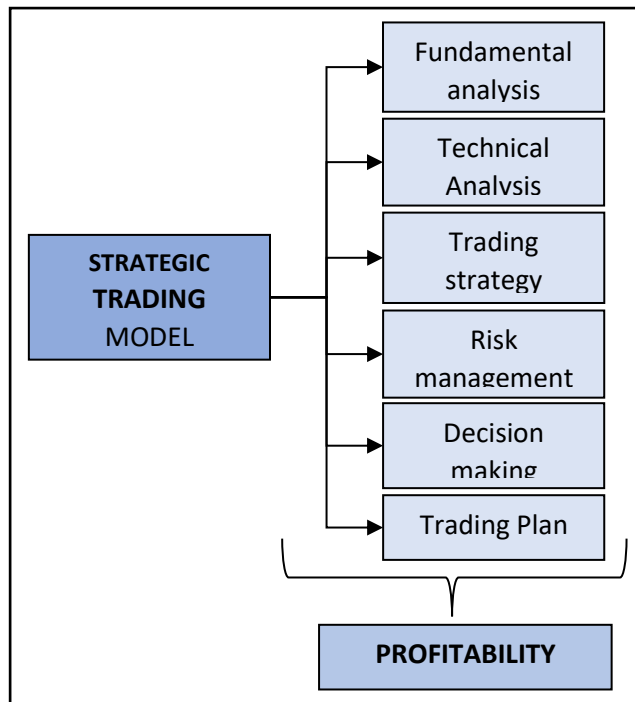


Figure 1. Trading model

FUNDAMENTAL ANALYSIS

General fundamental analysis

It consists of analyzing the news of the general state of the economy, focusing mainly on what is related to currencies and indices. For example:

- ✓ Presidential elections of the United States: In this case the operator decides not to operate because supply and demand are uncertain, because this fact influences the currencies that include USD, which leads to influence the prices of the shares that form the stock indices.
- ✓ Pandemics
- ✓ Wars

For general fundamental analysis, the use of Investing and FXStreet tools is proposed:

Specific fundamental analysis

It consists of analyzing the economic factors directly related to financial instruments individually.

Tools for fundamental and specific analysis

- ✓ Investing

Level of impact	Representation	Meaning	Duration
Festivity	Festividad	Market with irregular behavior	Not operated all day



Low		Unusual movements	It is not operated from the beginning until one hour after the specified time of the fundamental fact
Middle		Unusual movements	It is not operated for one hour before and 1 hour after the specified time of the fundamental fact
High		Unusual movements	Not operated all day

Table 1. Parameters of the Investing tool

✓ FXStreet

Level of impact	Representation	Meaning	Duration
None		Market with irregular behavior	Not operated all day
Low		Unusual movements	It is not operated from the beginning until one hour after the specified time of the fundamental fact
Middle		Unusual movements	It is not operated for one hour before and after the specified time of the




			fundamental fact
High		Unusual movements	Not operated all day

Table 2. FXStreet tool parameters

Technical analysis and trading strategy

In technical analysis, the historical data of the Japanese candlestick trading charts is studied, applying the trading strategy.

Trading strategy

The day trading strategy is composed of the following indicators:

- ✓ 3-period simple moving average
- ✓ Exponential moving average of 26 periods
- ✓ Parabolic SAR short with a pitch of 0.08 and maximum of 0.08.
- ✓ Parabolic SAR medium with a pitch of 0.004 and maximum of 0.09.
- ✓ Zigzag with a depth of 4 periods, deviation of 5 and recoil of 3 periods.
- ✓ Volume. Determines the existing supply and demand in the present tense.
- ✓ Fibonacci with a limit of 19.1% to sink losses and 161% of the trend.

Graphical representation of trading indicators



Figure 2. Graphical representation of trading indicators

Temporality for analysis with trading strategy

Analysis (temporality A):

- ✓ 4 hours in currencies.
- ✓ 1 hour in the indexes.

Operative (temporality B):

- ✓ 15 minutes in currencies.
- ✓ 5 minutes in the indices.

Steps to apply the trading strategy

a. Step 1 of the strategy: Zigzag indicator

The function of the zigzag indicator is to show the maximum and minimum prices closest to the last price candle in temporality A (4H in currencies and 1H in indices).

- The nearest high price is traced by a resistance line.
- The nearest minimum price is plotted by a support line

When the price reaches the resistance line the trend is considered to be heading towards being an uptrend (to buy), but the opportunity to execute a purchase is not yet confirmed.



When the price reaches the support line the trend is considered to be heading towards being a downtrend (to sell), but the opportunity to execute a sale is not yet confirmed.

b. Step 2 of the strategy: 3-period simple moving average indicator

The function of the 3-period simple moving average indicator is to make 1 of the 2 confirmations of opportunities to execute trading operations.

- Confirmed purchase: The moving average is applied in temporality B to make the first part of the confirmation of a buying opportunity, where it breaks the price marked by the resistance line drawn, that is, it must visually break the resistance line.
- Sale confirmation: The moving average is applied in temporality B to make the first part of the confirmation of a sell opportunity, where it breaks the price marked by the support line drawn, that is, it must visually break the support line.

c. Step 3 of the strategy: Parabolic indicators short sar, medium parabolic sar and exponential moving average of 26 periods

The function of the parabolic indicators and exponential moving average of 26 periods within the strategy is that they must be in temporality B in an uptrend in case of analyzing a purchase opportunity and in a downtrend in case of analyzing a sale opportunity.

d. Step 4 of the strategy: Fibonacci indicator

The indicator has the function of setting the points of the take profit and stop loss prices.

For purchase, the Fibonacci indicator notes:

- The take profit point above the entry point.
- The stop loss point below the entry point.

For selling, the Fibonacci indicator notes:

- The take profit point below the entry point.
- The stop loss point above the entry point.

The take profit has 3 levels marked by the Fibonacci indicator:

- Option 1 of the take profit is the gains corresponding to 61.8% of the marked trend.
- Option 2 of the take profit are the gains corresponding to 111.8% of the marked trend.
- Option 3 of the take profit are the gains corresponding to 161.8% of the marked trend.

The stop loss has 1 level marked by the Fibonacci indicator:

- In the strategy, the stop loss (limit of losses to be assumed) corresponding to 19.1% of the trend marked with the Fibonacci indicator.

Identification of purchase opportunities

For a buying opportunity to be confirmed, in addition to verifying the existence of market participants through the volume indicator, the strategy must comply with the following:

1. The zigzag indicator marks the nearest minimum price in temporality A, to be traced by a resistance line.
2. The simple moving average indicator of 3 periods breaks in temporality B the price traced with the resistance line, corresponds to the first part of the confirmation of the opportunity to execute a purchase transaction.
3. The 26-period exponential moving average and parabolic sar indicators should be in an uptrend, finally confirming the existence of a real opportunity to execute a buy trade. It is at this point that the purchase trading operation is executed.
4. The maximum profit point (take profit) and the limit loss point to assume (stop loss) are established, applying the Fibonacci indicator.

Identification of sales opportunities

For a buying opportunity to be confirmed, in addition to verifying the existence of market participants through the volume indicator, the strategy must comply with the following:

1. The zigzag indicator marks the nearest maximum price in temporality A, to be traced by a support line.
2. The simple moving average indicator of 3 periods breaks in temporality B the price drawn with the support line, corresponds to the first part of the confirmation of the opportunity to execute a sale transaction.

3. The 26-period exponential moving average and parabolic sar indicators should be in a downtrend, finally confirming the existence of a real opportunity to execute a sell operation. It is at this point that the trading operation for sale is executed.
4. The maximum profit point (take profit) and the limit stop loss point are set

RISK MANAGEMENT

Specifies the size of the buy or sell position (lotage), stop loss levels, take profit and break even.

Lotaje

The lotage is applied according to the size of the account.

Account Size	Index Lotting	Lotage in foreign currency
100	Do not trade	0,01
200	Do not trade	0,02
300	Do not trade	0,03
400	Do not trade	0,04
500	0,01	0,05
1000	0,02	0,10
1500	0,03	0,15
2000	0,04	0,20
2500	0,05	0,25
3000	0,06	0,30
3500	0,07	0,35
4000	0,08	0,40
4500	0,09	0,45
5000	0,10	0,50

Table 3. Recommended lotage, according to the proposed model

For the present research work, the lotage of 0.01 in indices and 0.05 in currencies has been applied.

Stop loss

It is the loss limit. The maximum loss level should be marked by means of the Fibonacci indicator at 19.1%.

Take profit

It is the limit for taking profits. The expected level of profit per trade should be marked by means of the Fibonacci indicator, starting from level one 161.8% (corresponds to 61.8% of the trend), level two 211.8% (corresponds to 111.8% of the trend) to level three 261.8% (corresponds to 161.8% of the trend).

Use de break even

Profit levels are assumed by dragging the stop loss towards the take profit levels each time it reaches the next one. This is:

- When the price reaches take profit level 1 (161.8%), the stop loss moves to the entry point.
- When the price reaches level 2 of take profit (211.8%), the stop loss moves to the level (161.8%).
- When the price reaches take profit level 3 (261.8%), the stop loss moves to level 2 (211.8%).

The use of break even within the strategy has the following advantage and disadvantage:

- Advantage: ensures profit while advancing to each next level of take profit.
- Disadvantage: In case of a setback, the trade is closed due to the stop loss moved taking the profit marked with the stop loss, so it does not reach the expected profit level when it comes to a price retracement.

DECISION MAKING

Decision making directly influences the results, this is because the decisions predense to be presented on the following aspects:

- ✓ Operaciones stop loss o take profit digitado con error
- ✓ Operations with batching typed with error
- ✓ Execution of transactions with confusion in financial instruments



- ✓ Trades opened at market close
- ✓ Execute trades by analyzing the market without strategy
- ✓ Execute trades without following the trading plan
- ✓ Do not close trades at the price indicated by the strategy: stop loss and take profit
- ✓ Surprise fundamental news

Steps of risk decision making

- 1) Identify and define the problem
- 2) Gather relevant information
- 3) Identify and analyze alternatives
- 4) Anticipate results and weigh the impact of the alternative
- 5) Select an alternative
- 6) Carry out the decision
- 7) Review and monitor

PLAN DE TRADING

It is the guiding tool that comprises the steps to trade.

Steps

1. Perform fundamental analysis.
2. Choose the financial instrument to trade, from the group of indices or currencies.
3. Choose the temporality of 5 minutes in indices and 15 in currencies.
4. Determine the lotage with which it is going to operate.
5. Perform technical analysis by applying the trading strategy.
6. Identify the opportunity of a purchase or sale operation.
7. Set the take profit and stop loss.
8. Execute the trading operation.
9. Verify the data of the operation.
10. Wait for the transaction to reach the marked result.
11. Result: Record the result in the log. If the result is gain, do not proceed to step 12. If the result is loss continue to step 12.
12. Check if steps 1 to 8 were executed correctly. If the result is YES corresponds to transactions of 13% in indices and 9% in currencies with loss applying the strategy. If the result is NO feedback should be executed on the use of the strategy, technical and fundamental analysis, risk management, decision making and execution of the trading plan.

III. ANALYSIS OF RESULTS

The trading strategy was executed over a period of 12 months, in the currency financial instruments EUDUSD, GBOUSD, EURGBP and in the index instruments SXP500, US30 and NDQ100, with a total of 500 data obtained, these being 254 in indices and 246 in currencies.

After the execution of the trading strategy the following results have been obtained.

Monthly results

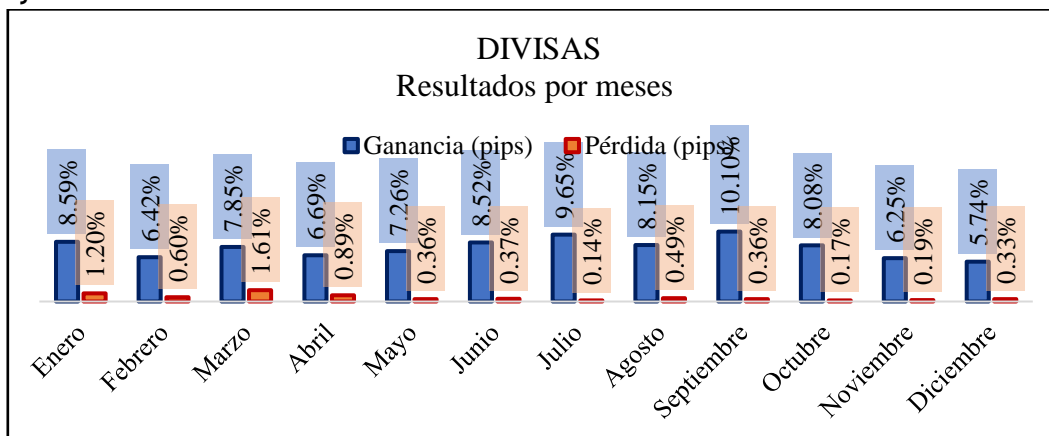


Figure 3. Results by months, currencies.



The gains of the currencies are greater than 5% and losses equal to or less than 2% with respect to the total pips produced in each month, corresponds to the all months.

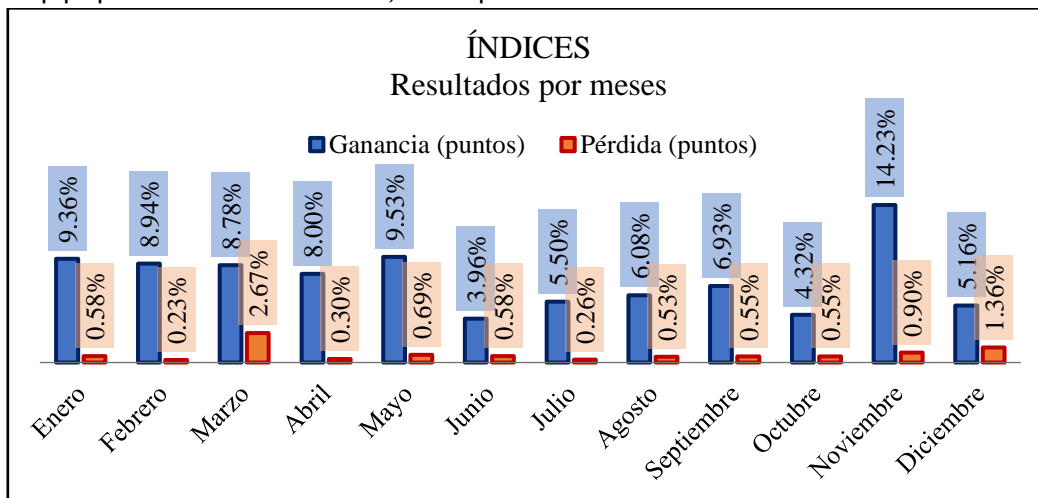


Figure 4. Results for months, indexes.

It is evident that the best months where trading transactions have been made correspond to the months of highest profitability, where more points have been earned that are above 5% monthly pips with respect to their total generated monthly. These two months of January, February, April, May, July, August, September, November and December correspond to 74% of point gains with respect to the total points obtained for each of the months.

Results by days

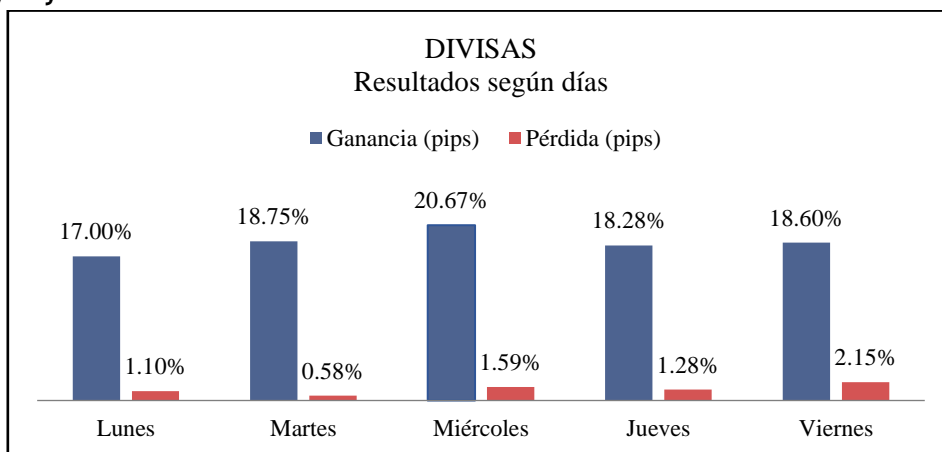


Figure 5. Results by days, currencies.

Taking into account that no day exceeds 2% of the total pips generated, the results indicate that the best days to execute trading transactions are the days from Monday to Thursday, since they have profits equal to or greater than 18% and with losses less than 2% of the total pips generated.

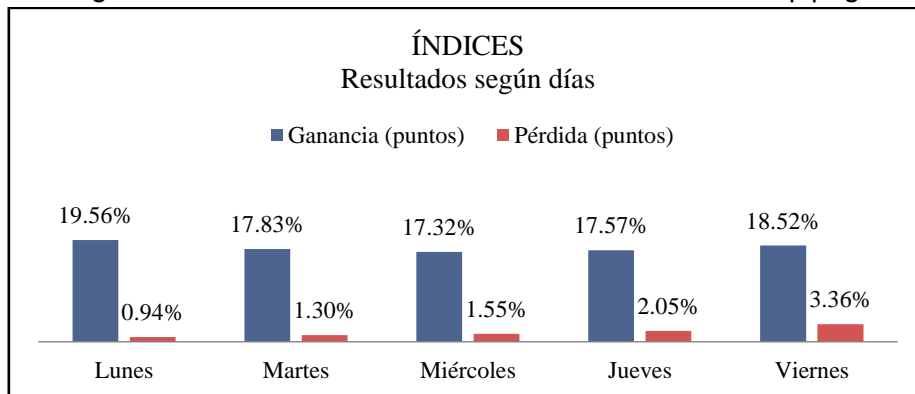


Figure 6. Results by days, indexes.



The figure indicates the best days to trade are the days from Monday to Thursday. It does not include Friday, because it has 3% losses with respect to the total points generated.

Schedule ranges

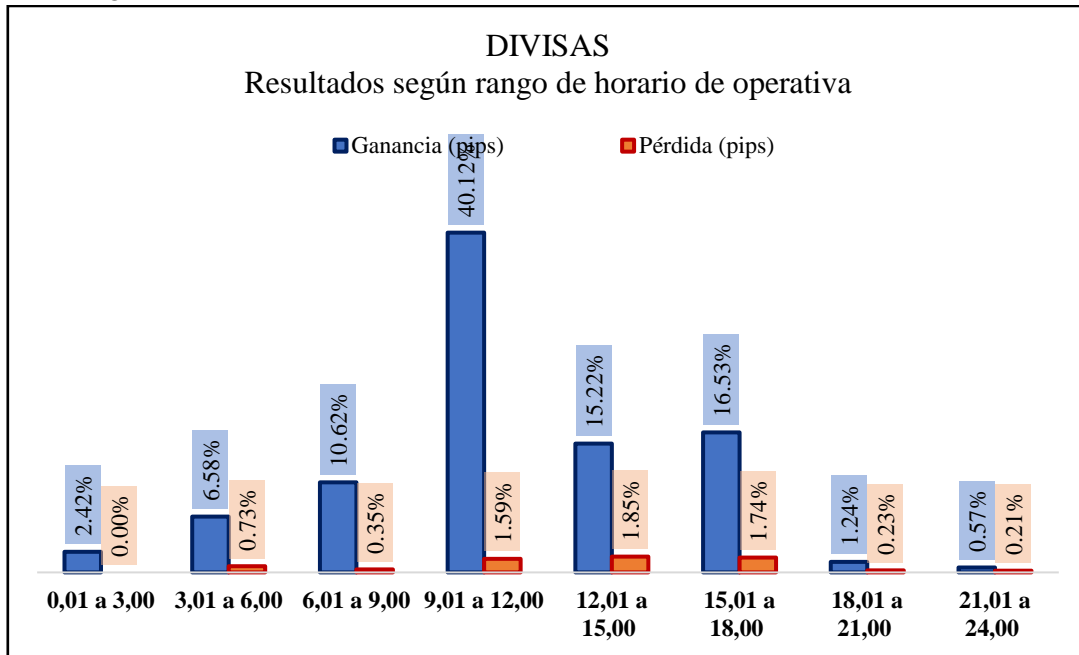


Figure 7. Results time ranges, currencies.

It can be mentioned according to the results obtained that the best time to trade is from 09h00 to 12h00, followed by all other hours, except the schedule from 18h00 to 24h00, and from 01h00 to 03h00.

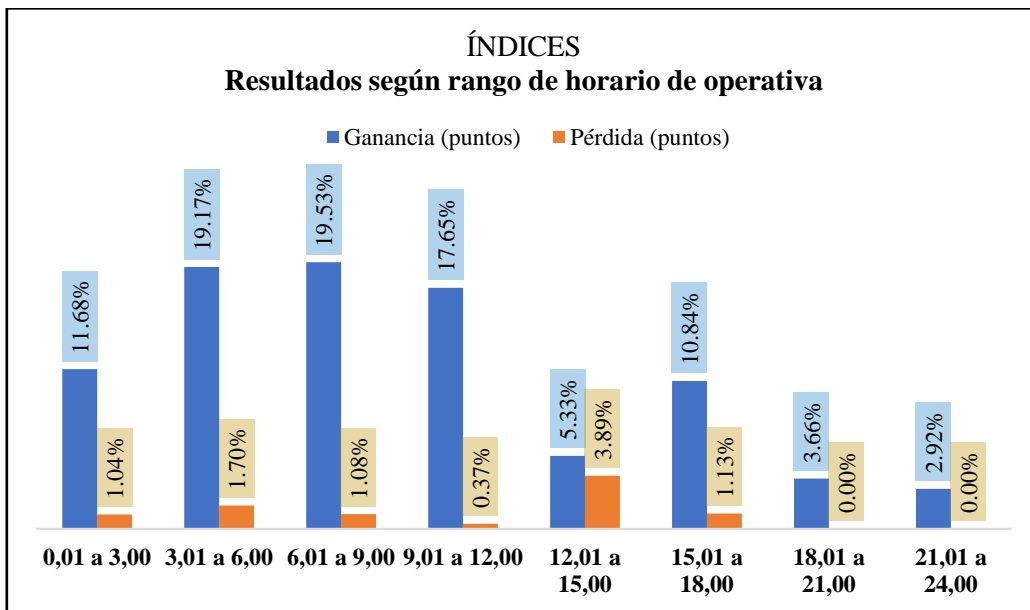


Figure 8. Results time ranges, indexes.

In accordance with the results obtained, the most recommended times to execute trading operations in the index market are from 01h00 to 12h00 and the schedule from 15h00 to 18h00.

Likewise, the schedule that should not be operated is the schedule from 12h00 to 15h00 due to the high level of loss it generates (4% loss vs. 5% profit), and the schedules from 18h00 to 24h00 that as well as its loss level of 0, also its profits are only 7% in total, when there are the schedules that present better possibilities.



Duration of transactions

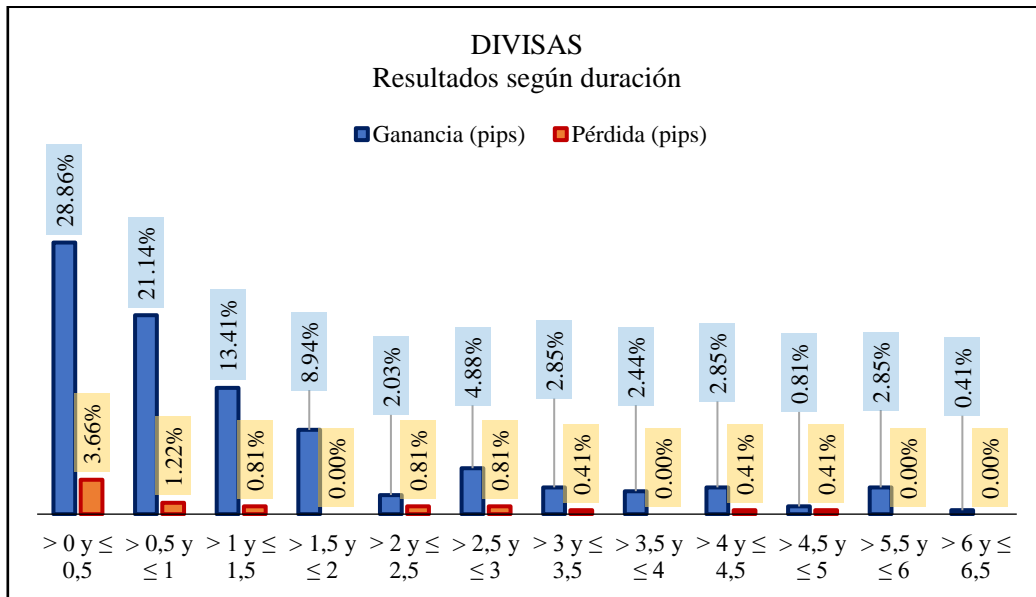


Figure 9. Results duration ranges, currencies.

It is evident, according to the results that most transactions, exceeding 72% of the total transactions generated, do not exceed a duration of 2 hours or 120 minutes.

While the maximum that a trading operation can last does not exceed 6 hours.

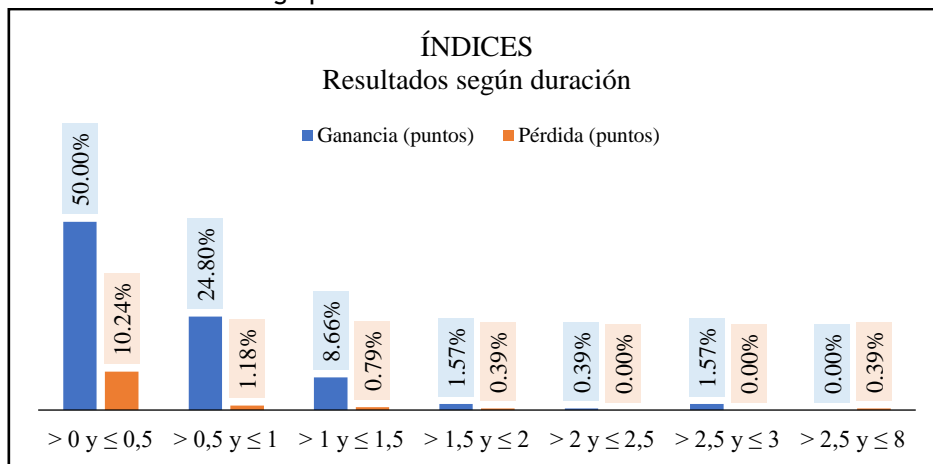


Figure 10. Results duration ranges, indexes.

It is obtained that the majority (75%) of transactions in the index market do not supra a duration of 1 hour. It is also shown that the maximum that an operation can last is 3 hours.

Transactions

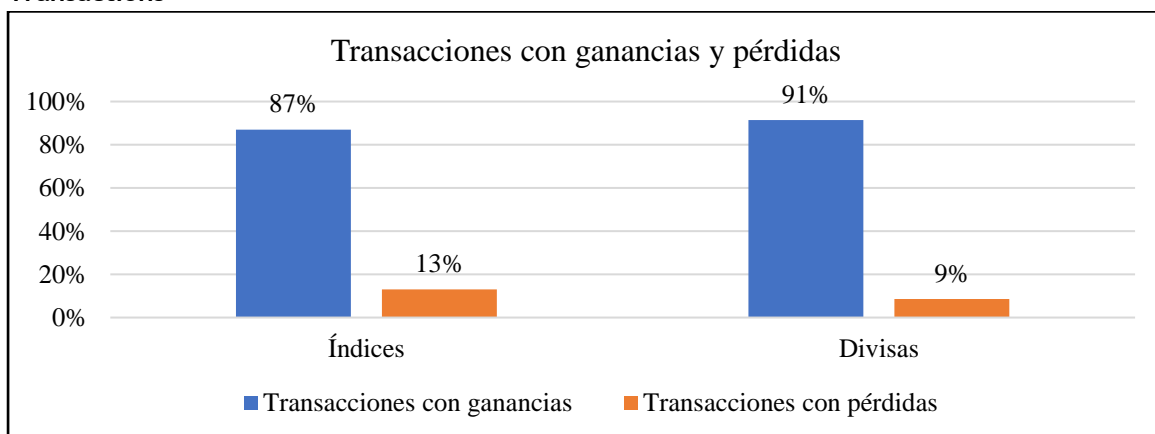


Figure 11. Transaction Results



According to the results obtained, 91% of transactions executed in the foreign exchange market are profit and the remaining 9% correspond to transactions with losses.

While in the index market 87% corresponds to won transactions and 13% to lost transactions.

It can be mentioned, agreeing with the results that there is a high profitability level both in the foreign exchange market and indices, being more productive the transactions executed in the foreign exchange market.

Profit and loss, in pips (currencies) and points (indices)

	Earnings	Losses	Total
FOREIGN EXCHANGE	3036,40	218,00	3254,40
	93,30%	6,70%	100,00%
INDEXES	4335,20	439,67	4774,87
	90,79%	9,21%	100,00%

Table 4. Results in pips (currencies) and points (indices)

According to the results obtained in the research, in the foreign exchange market the result in pips corresponds to 93% of profits and 7% of losses. As for the points obtained with the indices, 91% corresponds to profits and 9% to losses. It is understood that there is profitability greater than 90% with respect to 10% of points and pips obtained.

Monetary gains and losses

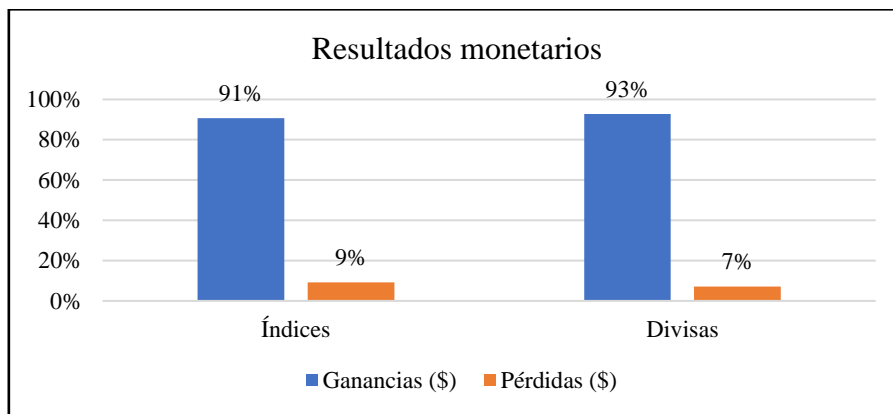


Figure 12. Monetary results

As for the monetary results obtained in the foreign exchange market, it corresponds to 93% of profits and 7% of losses. In the index market of the total 100% 91% corresponds to profits and 9% to losses. According to the results, it can be mentioned that there is a high level of profitability when trading in the foreign exchange and index market, it exceeds 90%.

ECUADORIAN LEGAL REGULATIONS AND THEIR LEGAL ANALYSIS

In Ecuador, investment trading in the foreign exchange market and stock indices is considered a relatively new issue that has currently taken and continues to take a lot of relevance, so it is necessary to mention and analyze the Ecuadorian legal regulations governing this issue.

We can begin by mentioning the provisions of the Securities Market Law, which establishes the attributions of the Superintendence of Companies in the Securities Market, article 10.- Of the attributions and functions of the Superintendence of Companies.- In addition to the functions indicated in the Companies Law, for the purposes of this Law, through the Securities Market Administrations of Quito and Guayaquil and those created by the Superintendent. of Companies depending on the development of the stock market, will enjoy technical and operational autonomy and will have the following attributions:

1. Execute the general policy of the securities market dictated by the C.N.V.;
2. Inspect, at any time, the companies, entities and other persons involved in the securities market, with broad powers of verification of their operations, accounting books, information and any



document or instrument necessary to examine, without being able to oppose the banking or stock market secrecy, in accordance with the rules issued by the CNV, requiring the supervised institutions to comply with corrective and reorganization measures in the cases that may be available, considering that when the Superintendency of Companies must act in an entity subject to the supervision and control of the Superintendency of Banks and Insurance, it will do so through it or jointly;

3. Investigate complaints or infractions of this Law, its regulations, internal regulations and regulations of the institutions governed by this Law, as well as those committed by any person who, directly or indirectly, participates in the securities market imposing the pertinent sanctions, as well as inform the competent authority so that the corresponding criminal proceedings can be initiated, if applicable;

4. Ensure the observance and compliance with the rules governing the securities market;

5. Request or provide, directly or indirectly, public information in the terms provided for in this Law, regarding the activity of natural or legal persons subject to its control;

6. To know and punish, in the first instance, the infractions to this Law, to its regulations, resolutions and other secondary norms;

7. Authorize, subject to compliance with the established requirements, the realization of a public offering of securities; as well as suspend or cancel a public offer when there are indications that the information provided does not adequately reflect the financial, patrimonial or economic situation of the company subject to its control;

8. Authorize the operation in the securities market of: stock exchanges, securities houses, risk rating companies, centralized securities clearing and settlement depositories, fund and trust management companies, external auditors and other persons or entities that act or intervene in said market, in accordance with the general regulations issued for that purpose;

9. Organize and maintain the Securities Market Registry;

10. To order, by means of a reasoned resolution, the suspension or modification of the rules of self-regulation issued by the stock exchanges or trade associations created under this Law, when such rules could infer damages to the development of the market or contradict express legal or complementary norms;

11. Approve the Internal Regulations and the format of the contract for the incorporation of investment funds;

12. Ensure the stability, soundness and proper functioning of the institutions subject to its control and, in general, that they comply with the rules governing their operation;

13. Monitor that the advertising of the controlled institutions conforms to the legal and economic reality of the product or service that is promoted, to avoid disinformation and unfair competition; Advertising that is not related to the stock market is excepted;

14. Maintain, for dissemination purposes, an information center in accordance with the general rules issued by the CNV;

15. To register the self-regulatory trade associations that are created under this Law; 16. Provide for the suspension or cancellation of the registration in the Securities Market Registry of the institutions or securities subject to this Law or its complementary regulations, and such fact must be brought to the attention of the CNV in the immediately following session;

17. Establish adjustment plans and programs for compliance with the rules provided for in this Law;

18. Intervene as a private prosecutor or go to the competent authority, when presumptions are found of having committed one or more crimes against the stock market, or others typified in the Criminal Code or other criminal laws;

19. Provide non-financial public sector entities with the technical advice they require for the purposes of the application of this Law;

20. Exercise the other powers provided for in this Law and its regulations, based on the rules issued for this purpose by the CNV; and

21. After urgent consultation with the Minister of Economy and Finance, Superintendent of Banks and Insurance, Manager of the Central Bank of Ecuador and presidents of the country's stock exchanges,



the Superintendency of Companies, in order to preserve the public interest of the market as well as provide protection to investors, may temporarily suspend for up to a period of seven days, securities market operations in the event of disruptive or seriously distorting emergency situations leading to sudden price fluctuations

Already in the same legal norm invoked above we can also find in its article 20.- all the documents and requirements that are needed for registration in the Registry of the Securities Market; considering that for the registration of an issuer and its securities, a prior risk rating will be required, except in the cases provided for in this Law.

The registration of an issuer that is not accompanied by the registration of a specific security or at least one of the ordinary course of its business will not be admitted. The C.N.V. will regulate the registration and its maintenance, in order to ensure that the information derived from the registration and its maintenance allows the public to accurately identify the registered value or participant and its characteristics.

The Superintendency of Companies shall proceed to the corresponding registration in the Securities Market Registry as soon as the entities subject to its supervision and control have provided it with complete, truthful and sufficient information on their legal, economic and financial situation and have satisfied, when appropriate, the other requirements established by this Law and the rules of general application that are issued. Registration obliges those registered to disseminate this information continuously and to permanently comply with the corresponding requirements. All documents and information existing in the Securities Market Registry will be available to the public, except those that the CNV qualifies as reserved. The review of compliance with the requirements prior to registration must be made within fifteen days. If there are observations, the Superintendence of Companies shall suspend it until such observations have been addressed. The Superintendence will proceed to the corresponding registration in the Securities Market Registry, once they have complied with the requirements issued for this purpose by the CNV. in this sense, it is inevitable to ignore what the public sector establishes for the registration of securities, establishing that the registration of securities issued by the State and public sector entities, in exercise of the powers granted by their own laws, will be automatic and of a general nature, the legal basis that authorizes each issue and a description of the essential characteristics of said securities being sufficient for this purpose. (Securities Market Law, 2019)

There is also talk of the suspension of registration where the Superintendence may suspend by means of a reasoned resolution the registration of participants or securities subject to registration in the Securities Market Registry when:

1. For supervening reasons, a participant, value, act or contract, object of registration, will be temporarily unable to fulfill the function that corresponds to him;
2. No longer meets one or more of the requirements for registration;
3. In the opinion of the C.N.V. so requires the protection of the rights or interests of investors, third parties or the general public; and
4. Due to non-compliance with this Law, its complementary and self-regulatory rules and other rules issued by the CNV.

Such registration can be cancelled of a participant or a security in the Securities Market Registry may be:

1. Voluntary: when requested by the issuer in accordance with the rules issued by the CNV; or
2. Ex officio: when by reasoned resolution of the Superintendence of Companies it is determined as one of the causes that:
 - (a) The registration was obtained in accordance with the requirements or procedures established in this Act; (b) There are causes supervening a participant, value, act or contract, subject to registration, which definitively makes it impossible for him to perform the function that corresponds to him;
 - c) On the occasion of its offer in the market and during the validity of the issue, the issuer will deliver to the Superintendence of Companies and to the stock exchanges of



or disseminates to the general public, incomplete or confusing information or background; (d) The value does not maintain the requirements that made its registration possible;

(e) The rights conferred by the security have been extinguished; and

f) There has been repeated non-compliance with provisions of this Law, its complementary and self-regulatory rules, which are subject to administrative sanctions. In the cases of subparagraphs a) and c), the cancellation entitles those who are affected, so that they can request compensation from the issuer for the damages caused. This responsibility is independent of any administrative or criminal sanctions that may apply. (Securities Market Law, 2019)

OF THE PRIMARY AND SECONDARY MARKET

Primary market is one in which the buyers and the issuer participate directly or through intermediaries, in the purchase and sale of fixed or variable income securities and determination of the prices offered to the public for the first time.

Secondary market, includes operations or negotiations that are carried out after the first placement; Therefore, the resources coming from those, are received by their sellers. Both in the primary and secondary markets, brokerage firms will be the only intermediaries authorized to offer such securities directly to the public, in accordance with the rules provided for in this Law and the resolutions issued by the CNV. Notwithstanding the provisions of the preceding paragraph, institutional investors may act directly in the primary fixed income market, in operations that do not involve securities intermediation.

Fixed-income securities are those whose performance does not depend on the results of the issuing company, but is predetermined at the time of issuance and is accepted by the parties. The issuer may place the fixed-income securities it issues on the primary or over-the-counter market, through a brokerage house, and may also place such securities directly on the primary over-the-counter market. In the secondary over-the-counter market, institutional investors will be able to buy and sell fixed-income securities for their own account. For these purposes, it is considered that fund and trust administrators, when acting for the funds and trusts they manage, make investments on their own account. All secondary market operations with instruments issued for the long term, that is for more than three hundred and sixty days, must be traded on the stock exchanges. (Securities Market Law, 2019)

In this regard, the Board of Directors of the Central Bank of Ecuador shall determine the conditions under which the Central Bank, within the provisions of the monetary and financial programme and only as an instrument of monetary control, may carry out open market operations, subject to the Organic Law on the Monetary Regime and the State Bank.

Securities negotiations between related companies, when they are registered in any of the country's stock exchanges, will be carried out through these entities. Trading in securities issued, guaranteed, accepted or guaranteed by a related company, whether to the buyer or the seller, must be carried out through the stock exchange. Any transaction carried out in the name of third parties, carried out by an authorized intermediary, with securities issued, accepted, guaranteed or guaranteed by companies related to that intermediary, must be carried out through an exchange. Fund and trust administrators may only buy or sell securities issued, accepted, guaranteed or guaranteed by companies related to said administrator, on the country's stock exchanges.

Variable income securities are the set of financial assets that do not have a fixed maturity and whose yield, in the form of dividends or capital, will vary according to the development of the issuer. In both the primary and secondary markets, equity securities registered on the stock exchange must be traded only on the stock market through the brokerage houses, with the exception of transfers of shares originated in mergers, divisions, inheritances, legacies, donations and liquidations of conjugal or de facto companies. Negotiations conducted in violation of the provisions of this article shall be null and void without, therefore, the transferee being able to exercise any of the rights granted by law to the shareholder. The legal representatives of issuers whose shares are registered on the stock exchanges must refrain from registering transfers of said shares without having previously presented the respective liquidation.



The securities derived from a securitization must be traded on the stock exchange, both in the primary and secondary markets, in special cases directed public offers or special auctions may be made.

Stock exchanges are authorized to implement trading mechanisms for securities not listed on the stock exchange, subject to authorization by the Superintendence of Companies. The shares of companies not registered in the Securities Market Registry may not be traded daily on the stock exchanges. However, periodically, as determined by the regulations of the respective stock exchange, special auctions of unregistered shares may be held, which will be announced publicly and with the necessary anticipation. (Securities Market Law, 2019)

Persons who directly or indirectly or through third parties own ten percent or more of the subscribed capital of a company registered in the Securities Market Registry, or who, as a result of an acquisition of shares, come to have such a percentage, as well as the legal representatives and administrators of such companies, where appropriate, whatever the number of shares they hold, they must inform the Superintendence of Companies and the stock exchanges of any acquisition or transfer of shares that they will carry out in that company five working days in advance of the respective transaction or transactions.

Natural or legal persons who directly or indirectly wish to take control of a company, registered in the Securities Market Registry, subject to the control of the Superintendence of Companies or Banks and Insurance, either through one or more acquisitions that individually or jointly involve the taking control of a company, They must inform the company, the public and each of the exchanges of the transaction they intend to carry out, at least seven working days in advance of the date on which the negotiation will be carried out. The C.N.V. will regulate the content and form of the information that must be provided. This notice will be valid for thirty days. This information shall indicate, at least, the price, term, term, form of payment and other conditions of the negotiation to be carried out, whatever the form of acquisition of the shares, including those that could be made by direct subscription.

OF THE BROKERAGE HOUSES

Article 56.- The Securities Market Law establishes that "... Casa de valores is the public limited company authorized and controlled by the Superintendence of Companies to exercise the intermediation of securities, whose sole corporate purpose is to carry out the activities provided for in this Law. To be constituted, it must have at least an initial paid-up capital of one hundred and five thousand one hundred and fifty-six (105,156) United States dollars, at the date of the opening of the capital integration account, which will be divided into registered shares..." (Securities Market Law, 2019)

The brokerage houses must comply with the parameters, indexes, ratios and other rules of solvency and financial prudence and controls determined by the CNV, taking into account the development of the stock market and the economic situation of the country.

Failure to comply with these regulatory provisions shall be communicated by the brokerage houses to the Superintendence of Companies within five days of the occurrence of the event and shall be remedied within the period and manner determined by said control body.

Financial groups, the institutions of the private financial system, may establish securities houses, if they constitute a subsidiary other than the entity that serves as the head of the group in which the percentage of its ownership is that authorized by the General Law on Institutions of the Financial System.

Brokerage houses may not carry out any kind of operation until they are legally constituted, have the authorization to operate and are members of one or more stock exchanges. Its securities intermediation functions shall be governed by the rules established for commercial commission contracts as applicable, without prejudice to the provisions of this Law.

Art. Article 57.- Intermediation and liability of securities houses.- Any order to carry out a stock exchange operation shall be understood with respect to the brokerage house and the principals, made on the basis that they are subject to the regulations of the respective stock exchange; and, in the



over-the-counter market, to the general rules issued by the CNV. The brokerage houses will negotiate in the securities market through operators registered in the Securities Market Registry, who will act under joint and several liability with their respective houses. The legal representatives, dependents and operators of a brokerage house may not be simultaneously of another brokerage house.

Brokerage firms may sign contracts with institutional investors so that under their protection and responsibility, they can carry out direct operations on the stock exchange. The C.N.V. will issue the special rules for these contracts. The brokerage houses that act in the purchase or sale of securities, are obliged to pay the purchase price or make the delivery of the securities sold, without being able to oppose the exception of lack of provision.

They shall be responsible for the identity and legal capacity of the persons they contract through them, for the existence and integrity of the securities they negotiate and for the authenticity of the last endorsement, where applicable; however, they shall not be responsible or liable for the solvency of the issuer. They may not use monies of their principals to meet outstanding or own obligations, or of other principals, nor may they offset the sums they received to buy or the price that will be delivered to them for the values sold, with the amounts owed to them by the buyer or seller client.

Art. Article 58.- Of the powers of the brokerage houses.- The brokerage houses shall have the following faculties: 1. To operate, in accordance with the instructions of their principals, in the stock and over-the-counter markets; 2. Manage portfolios of securities or money of third parties to invest them in securities market instruments in accordance with the instructions of their principals. A portfolio of securities is considered to be a set of securities managed exclusively for a single principal; 3. Acquire or dispose of securities for own account; 4. Carry out underwriting operations with legal entities in the public sector, the private sector and with collective funds; 5. Provide advice and information on securities intermediation, finance and securities, structuring of securities portfolios, acquisitions, mergers, spin-offs or other operations in the securities market, promote sources of financing, for natural or legal persons and public sector entities. When the advice involves the structuring or restructuring of the company to which it is being provided, the brokerage house may acquire shares of the same, for its own portfolio, even if said shares are not registered in the Securities Market Registry. The term for maintaining these investments will be determined by means of a general rule issued for this purpose by the CNV; 6. Exploit its technology, its information and data processing services and others related to its activity; 7. Advance funds from its resources to its principals to execute purchase orders for securities registered in the Securities Market Registry, and must retain such securities as collateral until the funds are replenished and within the limits and deadlines established by the rules issued for this purpose by the CNV; 8. Be a shareholder or member of institutions regulated by this Law, with the exception of other securities houses, fund and trust administrators, risk rating companies, external auditors, the business or financial group to which the securities house belongs and its related companies; 9. Carry out price stabilization activities only during the primary public offering of securities, in accordance with the general rules issued by the CNV; 10. Carry out stock market reporting operations in accordance with the rules issued by the CNV; 11. Carry out "market - maker" activities, with shares registered on the stock exchange under the conditions established by the CNV, which must include minimum equity, indebtedness, position, among others; and, 12. The other activities authorized by the CNV, in consideration of an adequate development of the stock market based on the complementary nature that they have in relation to their main activity. Art. Article 59.- Prohibitions on brokerage houses.- Brokerage houses are prohibited: 1. Carrying out financial intermediation activities; 2. Receive by any means public recruitment; 3. To carry out negotiations with securities not registered in the Securities Market Registry, except in the cases provided for in numeral 5, of article 58 of this legal body or when they are carried out through the mechanisms established in this Law. 4. Perform acts or carry out fictitious operations or that have the purpose of manipulating or artificially fixing prices or quotations. 5. Guarantee returns or assume losses of its principals. 6. Disseminate by any means, directly or indirectly, false, biased, inaccurate or privileged information; 7. Marginalize profits in a transaction in which, having been an intermediary, he has proceeded to collect his corresponding commission; 8. Acquire securities that they were ordered to sell, as well as sell their own to whom they were



ordered to acquire, without the express authorization of the client. This authorization must be in a written document; 9. Carry out the activities assigned in this law to the administrators of funds and trusts; 10. Carry out "market-maker" operations, with shares issued by companies related to the brokerage house or any other company related by management, ownership or administration; and, 11. Be a shareholder of a fund and trust manager. (Securities Market Law, 2019)

In this way we can establish that although the Securities Market Law is a little obsolete, as a personal criterion of the author, there are Ecuadorian legal regulations that in one way or another govern the **investment trading of the foreign exchange market and stock indices.**

The Securities Market Law of 1993, obviously, began as a proposal for new legislation on the securities market. By way of background, the study of the Superintendency of Companies of 1984 (El Mercado de Valores en el Ecuador., 1984) tells it in the following terms: In implementation of the Comprehensive Programme for the Development of the Securities Market of Ecuador, which is being carried out by the Superintendency of Companies, two preliminary bills have been prepared which, in the opinion of this entity, they are considered indispensable to establish an agile and modern stock market. They are the Draft Law on the Securities Market and the Draft Law on Companies and Investment Funds. The draft of the Securities Market Law of 1993 (Ibidem), summarizes some problems for which it was created, for example, the stock market was not widely used, given the excessive taxes that the parties had to pay, distrust of potential investors, lack of timely, objective and complete information about the companies, securities issued and the functioning of the market; among others. The case of the Ecuadorian State has not been the exception, since, as of August 10, 2014, the innovative Organic Integral Criminal Code entered into force, which must necessarily conform to the modern Constitution of the Republic of 2008, which brought with it a set of new rights and guarantees, which should govern throughout the current legal system. including the penal field. However, there is no doubt that just as technological progress has achieved countless benefits to society as a whole by using computer media in an appropriate way, also the damages caused by the incorrect use of these, have become substantial, since they have focused on the destruction of protected legal assets such as information or integrity, despite major legislative efforts to establish legal norms regulating such conduct. In this virtue, through the characterization of new contraventions, what is sought is that the state sanctioning power transcends even intangible spheres by human hand, since that is the demand that the current society demands from the State, fundamentally that which has not had any training in relation to this new criminal forms and that without the greatest care access technological sources that are part of the daily life of the people, but who currently constitute potential criminal means, and therefore, enemies of personal security. Therefore, despite the existence of criminal legislation regarding computer crimes in Ecuador, the real problem comes from the problems that the authorities have in order to stop such a computer mafia worldwide, since such crimes come from foreign borders that on the one hand, in many cases presume real investigative challenges for the authorities, and on the other, they create perceptions of impunity and distrust in the psyche of those passive subjects of the infractions, due to the fact that these illicit ones cannot be effectively sanctioned and therefore generate legal uncertainty.

The Ecuadorian legal system, in the prevention and effective punishment of the improper use of privileged information of the securities markets, is based on the current Constitution of the Republic of 2008, which is responsible for wielding new rights or attributions for the inhabitants of the Ecuadorian territory, guaranteeing their effective compliance through various mechanisms, in which the authority is required to fully enjoy them; moreover, when, according to the innovative neo-constitutional spirit proclaimed by the Fundamental Charter, the State is constituted so that the rights enunciated therein are effectively and truly exercised by individuals and collectivities. Therefore, it is sought to cover the requirement of justice demanded by the constituents, in the various areas of social work, within which we must inevitably refer to the technological aspect, which has become a fundamental edge within Ecuadorian development, and which has also been seriously harmed by the criminal mafia, a situation that is the common factor that Ecuador shares with the rest of the countries of the world, especially with those where national criminal legislation is less rigorous for such infractions. (César Bustamante Chong, Mgtr., 2012).

CONCLUSIONS

- ✓ This work was developed for the company Inverquito S.A., which aims to propose a strategic trading model to invest in the foreign exchange market and stock indices from Ecuador, in order to generate profitability for the investor.
- ✓ To achieve the proposed model, a trading strategy was designed that was executed for a period of 12 months checking its ability to generate profitability.
- ✓ The model is adjusted with the necessary elements such as technical analysis, fundamentals, risk management, position taking and trading plan.
- ✓ The trading strategy designed with the proposed stock market indicators presents 91% of monetary gains with respect to 100% of what is generated in indices, while in currencies it corresponds to 93% of profits.
- ✓ The project must be executed under the conditions set out in the model, following the trading plan and in the temporalities executed with the aim of obtaining profitable results.
- ✓ It is necessary to reform the Securities Market Law so that legally a much more important treatment can be given to investment trading in the foreign exchange market and stock indices, making this financial, economic, but above all legal practice much safer, establishing as a priority the functions for the control body that in this case is the National Securities Council mainly.

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