

STOCK EXCHANGE IN EMERGING MARKETS: INTEGRATED LATIN AMERICA MARKET (MILA) - AN OPPORTUNITY FOR INVESTMENT

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Abstract

How to cite this paper: Farfan, K. B., Lizarzaburu, E. R., Ampuero G. B., Preciado, L. B., Cisneros, J., & Noriega Febres, L. E. (2017). Stock exchange in emerging markets: Integrated Latin America Market (MILA) - an opportunity for investment. *Corporate Ownership & Control*, 14(4-1), 227-239. doi:10.22495/cocv14i4c1art5

How to access this paper online:
<http://dx.doi.org/10.22495/cocv14i4c1art5>

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ISSN Online: 1810-3057

ISSN Print: 1727-9232

Received: 18.10.2016

Accepted: 27.12.2016

JEL Classification: G10, G15, G24, N26

DOI: 10.22495/cocv14i4c1art5

The paper is an overview about the Integrated Latin America Market (MILA) until December 2014, including the Mexico Stock Market in the analysis. The paper describes how the market has been developing during the last five years, showing some aspects about the market capitalization, the most traded shares and the S&P MILA Andean 40 index. Besides the paper shows the benefits about the MILA to investors and the relation between the stock exchange index and the exchange rate in those markets, using a correlation model.

Keywords: Integrated Latin America Market, MILA, S&P MILA Andean 40, Stock Market, and Market Capitalization.

****Acknowledgement:** Collaboration - assistant: Mr. Leonel Pacari, student at ESAN university

1. INTRODUCTION

Nowadays, companies are always trying to keep up with modernization and globalization; in order, not to lose competition or share market of their main public and this result as an implication for companies with different core business. In this sense, they aimed to raise funds from investors who are interested to monetize their surplus. Once that these two necessities are identified both sides start to look for alternatives, the one which maximize their conditions (Fradique-Méndez & Abogados, 2014) so, they went to the market and start evaluating, it will depend on the condition of the companies. Most of the time small businesses just stay with the banks, which works as a financial intermediary. However, bigger business and

companies have the conditions to negotiate directly with others and establishes certain conditions according their needs, and all this through a direct finance system (Stock market and bond markets - S&P, 2014).

Latin America Markets and governments show some instability and their different sectors results affected and beaten by the problems that government tries to manage. (Serfinco - Comisionistas de Bolsa, 2015). The consolidation of stock markets has become an unavoidable process in a globalized world where movement of capital is at the forefront of globalization (Pulido and Martinez 2013). Finance and corporate governance, becomes a strategic tool with high added value, and whose social impact is high. It is in this context to consider the role and evolution of

the bags (Hamon, Jacquillat and Saint, 2007). Latin America can not be left out of this movement, which - takes the challenge of integration.

The three economies of the region (Peru, Chile, and Colombia) took the decision of gather volume, force, funds and desire of growing and lunch MILA The Integrated Latin America Market. (Lizarzaburu Bolaños, et al, 2015). Because of the integration among Chile, Colombia, Peru and Mexico (2014), these countries pretend to take and advantage of becoming a more diversity stock market.

Vargas and Bayardo (2013), set out the benefits and challenges of the Latin American Integrated Market, posing as benefits which trading platforms among member countries, aimed at greater efficiency of financial markets (Cortes and Corzo, 2009) are shared (Rojas y Castro 2016). Besides the plus that, for example the Stock Market of Santiago characterized because of the retail sectors, which have a strong presence in this country. Moreover, the Stock Market of Lima known due the mining companies that work in companies. (Diario Gestión, 2015).

In July 2014 the entry of Mexico to MILA is made official, made the first transaction in December of the same year. In July 2011, the stock index S & P MILA ANDEAN 40 in association with Standard & Poor's (S&P) and, whose release date and first measurement available formalizes is the August 29, 2011, and measures the performance of 40 stocks more liquid traded on MILA excluding Mexico. In July 2014 S & P Launches Family stock indices S & P MILA PACIFIC ALLIANCE which is responsible for measuring the performance of shares traded in MILA in full (Colombia, Peru, Chile and Mexico) (Rojas y Castro 2016).

This paper focus in explain the benefits that the first years of the MILA have generated to their economies and how in emerging markets there are a relation between the stock market and, the exchange rate.

2. THE INTEGRATED LATIN AMERICAN MARKET – MILA

2.1. Definition

The Integrated Latin American Market, since now we will refer to it as MILA. The MILA is the result of an agreement signed between the Santiago Stock Exchange, the Colombia Stock Exchange and the Lima Stock Exchange, as well as Deceval deposits, DCV (Depósito Central de Valores) and Cavali. These entities since 2009 began the process of creating a regional market for trading in equities of the three countries. After several months of doing different tests with the participation of the major players (brokers, regulators and stock exchange) from the three markets and governments, the market was launched in May 30, 2011. MILA started into operation to open a world of opportunities for companies from Chile, Colombia and Peru, considering the industry of Mutual Funds and family offices. They can buy and sell shares and other financial assets of the three stock exchanges, simply through a local intermediary or its own Stock Exchange Market (following the local regulator, there are not a “MILA” regulator, each country has it own regulation). In December 2014,

the entry of Mexico to MILA was formalized, with the incorporation of Mexican Stock Exchange and Indeval. (Bolsa Mexicana de Valores). Besides it is important to mention that Mexican Stock Exchange has a participation in Lima Stock Exchange.

MILA is the first initiative of transnational market integration¹ (focusing in bonds and equity) without merger or corporate integration globally, using technological tools and the adaptation and harmonization of regulation on trading in capital markets and securities custody of the three nations (Lizarzaburu et al., 2016)

Among the most important features of MILA is the fact that no market loses its independence or regulatory autonomy but maintain growth premised together as integrated market, given the complementarities of their markets. Likewise, all negotiations in MILA market is made in local currency without having to leave their countries and entries through local intermediaries, which further facilitates international operations through this tool. This bring mention the two main characteristics of the MILA market. In one side we have that none of the participating market loses their independence and regulatory autonomy. However, they maintain the promoting of the growth together as an integrated market. Then, the second peculiar characteristic of this market is that every trade at MILA market is made in the local currency of the country where is made, without the necessity of going out of the country which facilitate impressively the international operations through this market. (Bolsa de Valores de Lima). Today, MILA is the first market integrated by number² of listed companies in Latin America, the second largest market capitalization and third by trading volume. (Bolsa de Valores de Santiago)³

2.2. Some characteristics of economies participating in MILA

2.2.1. Chile

Chile has a market-oriented economy characterized by a high level of foreign trade and a reputation for strong financial institutions and sound policy that have given it the strongest sovereign bond rating in South America, following the information from several rating agencies. Exports of goods (copper for instance) and services account for approximately one-third of GDP, with commodities making up some 60% of total exports.⁴ Copper alone provides 20% of government revenue. Growth slowed to an estimated 2.3% in 2015. A continued drop in copper prices prompted Chile to experience its second consecutive year of slow growth, elevated inflation and a depreciating currency. (CIA, 2016).

¹ Baquero-Herrera, M. (2013). Legal certainty and financial markets integration: The MILA case. *Law & Bus. Rev. Am.*, 19, 487.

² Malamud, A., & Gardini, G. L. (2012). Has regionalism peaked? The Latin American quagmire and its lessons. *The International Spectator*, 47(1), 116-133.

³ Agudelo, D. A., Barraza, S. E., Castro, M. I., & Mongrut, S. (2012). Liqueidez en los mercados accionarios latinoamericanos: Estimando el efecto del Mercado Integrado Latinoamericano (MILA).

⁴ <https://www.forbes.com/places/chile/>

2.2.2. Colombia

"Colombia's consistently sound economic policies and aggressive promotion of free trade agreements with several countries in recent years have bolstered its ability to weather external shocks"⁵. Colombia depends on energy and mining exports, making it vulnerable to a drop in commodity prices (it is important to mention Ecopetrol, the most representative company listed in this market). Colombia is the world's fourth largest coal exporter and Latin America's fourth largest oil producer. "Despite austerity measures put in place by the Colombia administration, GDP and foreign direct investment (FDI) fell in 2015, while the El Niño weather phenomenon caused food and energy prices to rise, with inflation spiking to 6.8%"⁶. In order to combat inflation, the Central Bank raised interest rates four times during the last four months of 2015, ending the year with a 25 basis point increase to 5.75%. Unemployment has continued to decrease and hit a record low of 8.9% in 2015, but the rate is still one of Latin America's highest. Nevertheless, Colombia's GDP growth rate makes it the region's best performer among large economies in 2015. (CIA, 2016)

2.2.3. Mexico

"Mexico's \$2.2 trillion economy has become increasingly oriented toward manufacturing in the 22 years since the North American Free Trade Agreement (NAFTA) entered into force"⁷. In 2012, Mexico formally joined the Trans-Pacific Partnership negotiations and formed the Pacific Alliance with Peru, Colombia and Chile. Although the economy experienced stronger growth in 2014-15 as a result of increased investment and stronger demand for Mexican exports, growth is restrained to "weak oil prices, structural issues such as low productivity, high inequality, a large informal sector employing over half of the workforce, weak rule of law, and corruption". (CIA, 2016)

2.2.4. Peru

"Peru is the world's second largest producer of silver and third largest producer of copper. The Peruvian economy grew by an average of 5.6% from 2009-13 with a stable exchange rate and low inflation, which in 2013 was just below the upper limit of the Central Bank target range of 1 to 3%. This growth was due partly to high international prices for Peru's metals and minerals exports, which account for almost 60% of the country's total exports. Growth slipped in 2014 and 2015, due to weaker world prices for these resources. Poor infrastructure hinders the spread of growth to Peru's non-coastal areas"⁸. The economy passed several economic stimulus packages in 2014 to bolster growth, including reforms to environmental regulations in order to spur investment in Peru's lucrative mining sector. However, in 2015, mining investment fell as global commodity prices remained low and social conflicts plagued the sector (CIA, 2016). In the next graphs, it is

presented the fundamental variables of the economies, which are part of the MILA.

The *figure 1* shows us, the production of each country that is part of the MILA. In aggregate terms, MILA'S GDP has been growing up constantly in the last 5 years, and Mexico is the largest economy in this group.

The *figure 2* shows the inflation ratio of MILA's members. In the last 5 years, neither country have inflation above five percent. Indeed, this group of countries has a similar performance in prices, due to the similar features in their economies.

In this *figure 3*, the exports of each country is constant in the last five years; except from Mexico, which could explain this behaviour due to the growth of this industry.

In *figure number 4*, the unemployment graph rate shows the uniformity in the labour market of the MILA's members, except from Colombia. It could be explained due to the divergence in the structure economy of Colombia.

2.3. MILA's mission and vision statements

According MILA's website, its mission is the following⁹:

"The integration of the stock markets and tanks Chile, Colombia, Mexico and Peru, seeks to promote the growth of the trading activity of the member countries, providing an efficient and competitive infrastructure, better and greater exposure of their markets and wider range of products and opportunities for local and foreign investors." In addition, the vision is the following: "Being the market more attractive values in the region."¹⁰ So in this way, the essential and reason why the MILA exists is that these three markets try to take advantage of their Stock Exchange Markets main characteristics. In this way, these four participants are looking for becoming more interesting for foreign investors.

Moreover, at the time that these countries gather all these four places; companies and agents are looking for being bigger and have a certain presence in the world of the stock markets. (MILA Mercado Integrado Latinoamericano)

Chile, Colombia, and Peru have called the attention of worldwide investors during the last years. The greater dynamism of their economic activities, the deepening financial markets and solid results of stock markets have fostered the introduction of these markets in the global investment map. Likewise, the combination of improved public institutions related to finance and the reduction of barriers to capital movements have increased the flow of inward investment in the Andean countries, mainly Chile, Colombia and Peru (Lizarzaburu Bolaños, et al, 2015). The MILA combine virtually markets in different countries to facilitate international transactions, within each independent market.

5 <https://www.forbes.com/places/colombia/>

6 https://www.cia.gov/library/publications/the-world-factbook/files/print_2116.html

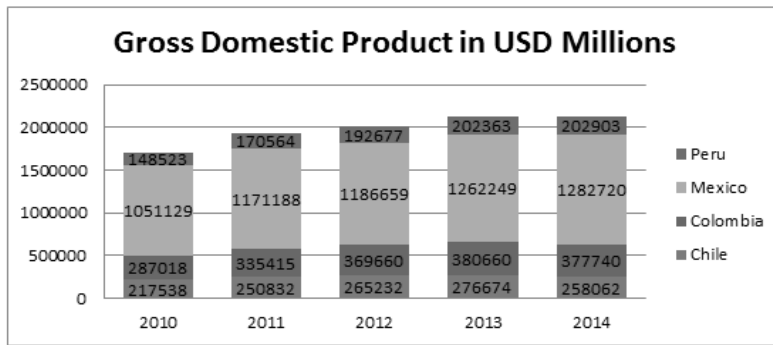
7 <https://www.forbes.com/places/mexico/>

8 <https://www.forbes.com/places/peru/>

9 <http://www.mercadomila.com/home/>

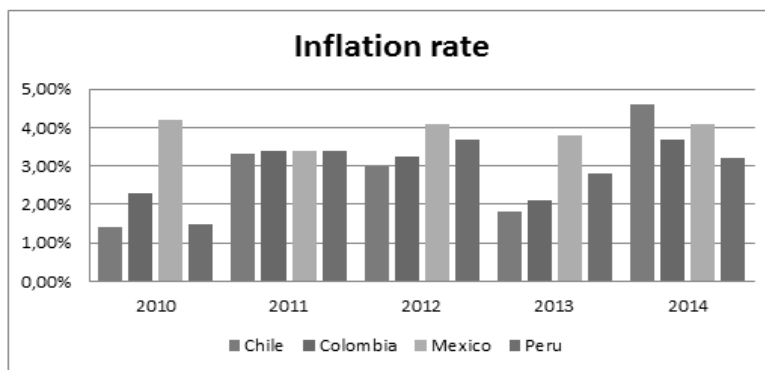
10 Romero-Alvarez, Y. P., Ramírez-Atehortúa, F. H., & Guzmán-Aguilar, D. S. (2013). Latin American Integrated Market (MILA): A Correlation and Diversification Analysis of the Stock Portfolios of the Three Member Countries in the Period 2007-2012. Cuadernos de Contabilidad, 14(34), 53-74.

Figure 1. GDP of MILA's members (December, 2014)



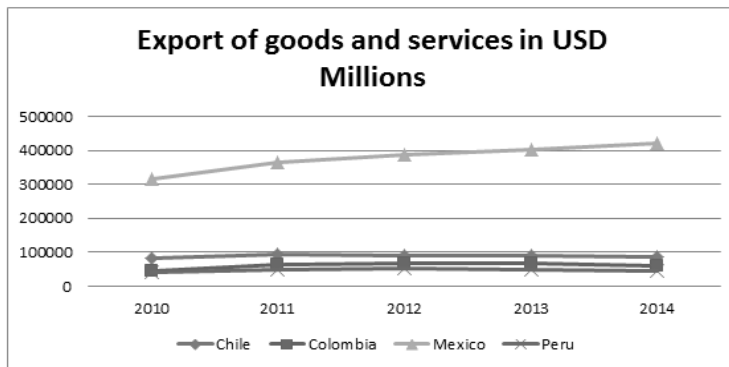
Source: Own elaboration

Figure 2. Inflation rate of MILA's members (December, 2014)



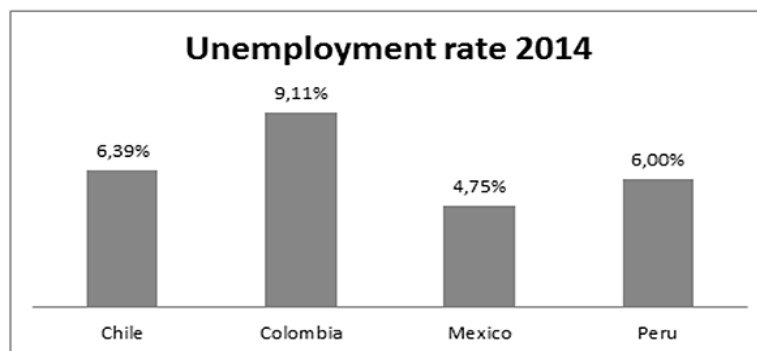
Source: Own elaboration

Figure 3. Exports of MILA's members (December, 2014)



Source: Own elaboration

Figure 4. Unemployment rate of MILA's members (December, 2014)



Source: Own elaboration

The process first conceptualized and agreed upon in September 2009 between the Santiago Exchange (Chile), The Colombia Exchange and the Lima Exchange (Peru) (Mellado and García, 2014).

Another key factor behind this integration process is a trend toward globalization of financial markets, which is more frequently every day. In the same line of thought, (Agénor, 2003) states that a key factor underlying the financial integration process is the search of investors for markets with higher rates of return than in their countries, and an opportunity of diversification in increasingly open and dynamic markets; all this, along with the concern of developing countries to attract more foreign capital flows. Thus, there is a latent need for regional markets integration, being MILA a first response to this need. (Hogue, 2011), states that MILA objective is to create economies of scale and to allow a greater scope for the trading of shares in stock markets and companies operating in the participating countries. Likewise, the author says that with this integration effort, there is an opportunity to increase diversification. This should produce risk reduction for market participants, thus risk premiums required and capital cost for regional issuing companies would decrease. Integration may also reduce the bid-ask spread through transaction cost reduction and liquidity increase. (Lizarzaburu Bolaños, et al, 2015).

2.4. Market integration model of Peru, Colombia, Chile and Mexico

This integration consists on the independence of each one of these stock exchange markets as independent companies¹¹. Therefore, in this manner, each stock market is managed separately and they remain their virtual platforms or electronic systems of negotiation, each one with their own negotiation rules and market administration. The integration of these markets understands itself as the link between the Central Value Depositories¹². With the purpose of effecting clearing and settlement of the trades that was made in the trading systems; as well as the registration and custody of securities traded through of the intermediated routing.

The integration is the beginning of something more important for Latin America. It is the first step that small countries take so they can level out the road toward the integration of much larger markets with the incorporation of giants such as Brazil. That country is also interested in integration because it will attract a greater volume of capital movements to the region, more liquidity, diversification of savings and, as a result, wealth for everyone (Tornabel, 2016). What this intermediated routing means the following. "Routing" because, allows the sending of commands to the stock market with which you

have some agreement or relationship (in this case with the country members). In addition, it's "intermediated" because a local broker should mediate through a foreign broker the command, in the way that arrived to the foreign market. Important to take in attention, that the order goes directly to the trading platform under the responsibility of the foreign broker in the trading, clearing and settlement of transactions. (MILA Mercado Integrado Latinoamericano)

In the next *figure 5*, there is the behaviour of the different stock markets that are part of the MILA, the relation is positive. It means MILA is acting as an option of investment among the investors, taking the best of each country.

In the *graph number 5*, there are four indexes: SP MILA: MILA performance; SP MILAC: Colombia performance in terms of MILA performance; SP MILAO: Chile performance in terms of MILA performance; SP MILAP: Peruvian performance in terms of MILA performance.

From 2011 to 2013, MILA's performance tended to grow, however since 2013 to present, it started to go down. This could be explained by the reduction in investment in all emerging markets.

In the *graph number 6*, there are four IGBVL¹³: Bolsa de Valores de Lima General Sector Index; IGPA: Santiago Stock Exchange Index; IGBC: Colombia Stock Market Index; MXEF: MSCI Emerging Markets Index.

The performance of emerging markets has the same direction of the stock markets in Chile, Colombia and Peru.

In the *graph number 7*, there are three indices; SPX: American stock market index.

There is a similar behaviour in the stock markets of MILA and the Emerging markets, and an opposite direction between the MILA and the SPX index, due to the difference that exist between emerging markets and developed economies.

3. IMPACTS AND IMPLICATIONS OF THE INTEGRATED LATIN AMERICA MARKET

The MILA will allow to the SABs trading instruments listed on foreign exchanges associated, directly from their own platform. This would be possible thanks to the technologic mechanisms established between the participants.

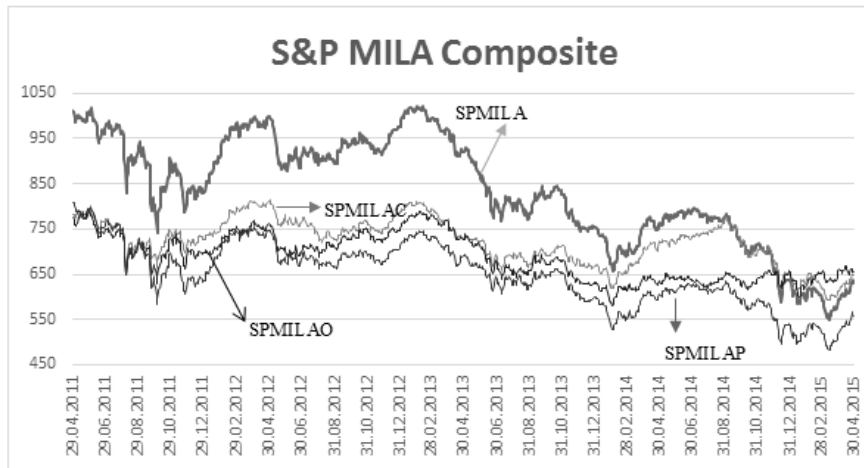
Broker Companies (Sociedad Agente de Bolsa - SAB) is a firm that buys and sells equity or fixed income and other securities for several entities such as retail companies, banks, institutional clients and other investors, through a stock exchange, in return for a fee or commission (in both sides, buy and sell). It adapts its services according to the profile of each client. MILA has 126 SABs which twenty-five in Peru, 43 in Chile, 34 Mexico, 24 in Colombia.

11 Huang, B. N., Yang, C. W., & Hu, J. W. S. (2000). Causality and cointegration of stock markets among the United States, Japan and the South China Growth Triangle. *International Review of Financial Analysis*, 9(3), 281-297.

12 Agudelo, D. A. (2012). Rendimiento ex-dividendo como indicador de eficiencia en un mercado emergente: caso colombiano 1999-2007. *Journal of Economics, Finance and Administrative Science*. Vol. 17,(33), 2012, pp. 38-47.

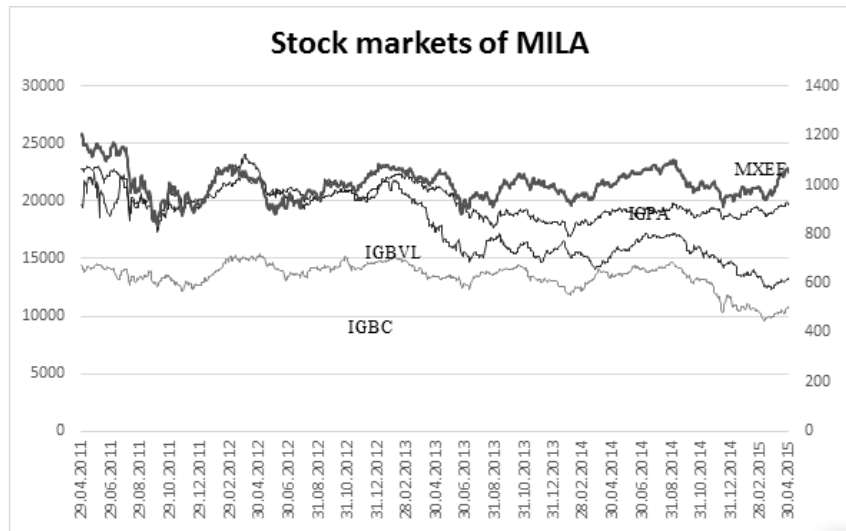
13 The index in BVL had changed and in 2016 are made by S&P - Standard and Poor's.

Figure 5. S&P MILA performance



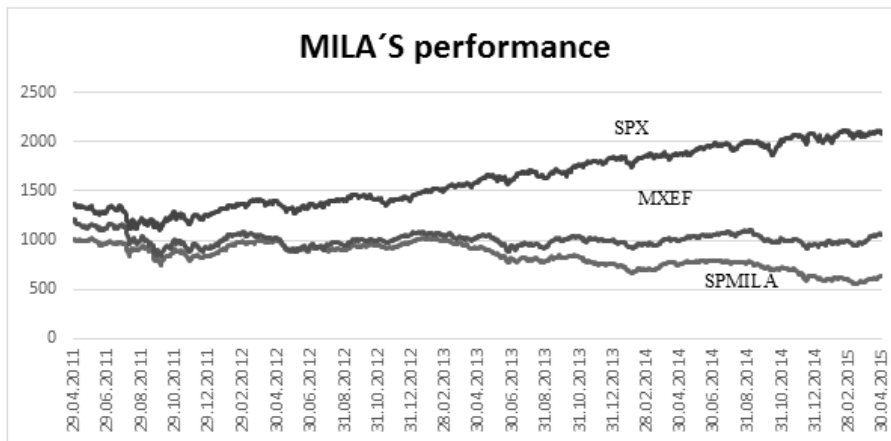
Source: Own elaboration

Figure 6. Stock market performance



Source: Own elaboration

Figure 7. MILA's performance



Source: Own elaboration

It is important to indicate that the MILA was created to promote the negotiation and integration of stock markets of Chile, Peru and Colombia. The fast developments of the Bovespa in Sao Paulo made the other smaller markets seek ways to protect themselves and compete. It was that or be devoured. (Romero Álvarez, 2013)

The MILA is a good idea to create visibility and maintain the concept of a single market composed of three countries; in a very beginning that give sufficient scale to attract new capital. MILA is to offer the investor on foot, retail, and investment opportunities in other countries that otherwise would not have.

Peruvian large stock exchange houses have tried to pole vault over to the markets of MILA without having worked hard to develop the Peruvian domestic market. Wanting to avoid the natural development of the retail market to engage with the other countries of MILA is the easy way out, but Peru needs a strong capital market and developed to keep growing, investing and saving. (MILA Mercado Integrado Latinoamericano)

4. DEVELOPMENT OF THE INTEGRATED LATIN AMERICA MARKET

4.1. Capitalization, volume of negotiation and more important stocks of MILA

Since its creation, the MILA has been developing because of the improvements and the growing amounts of participants that are interest in obtain some benefits of this mixed stock of exchange. For example, like the diversification of the different products that as an investor could trade.

Nowadays as a result of this growing and development, we can appreciate the Market Capitalization is around the billion dollars in December 2014; becoming the MILA into the first market in Latin America due to market capitalization and volume of operations that are trade in this place. (MILA Mercado Integrado Latinoamericano).

Figure 8. MILA's Market Capitalization 2014 in USD millions



Source: own elaboration

As it can be appreciated, the participation of Mexico is the biggest in comparison with the other three members of this market. This is because basically, the size of the capital market that Mexicans owns and the number of companies. Important to highlight also, that our country is occupying the last "position" in the level of market capitalization. Unfortunately, as it is well known Peru has not a good stability when politics and economics are referred. So this plays against the Capital Market and the investors who do not want to expose their fund to high levels of risk and as a

consequence we have a smaller market where companies can exchange different type of financial instruments. (Bolsa de Valores de Santiago)

In this sense, Mexico also obtains the first place when volume of negotiation we are talking (Lizarzaburu & Salguero, 2012). The Exchange Stock Market of Mexico overstocks more than the 50% of the level of negotiations that are trade in MILA Market. In addition, Peru the last position, we understand this because of the level of our Capital Market and the low development of itself. We can appreciate this information, in a summarized version with the following figure attached.

Figure 9. Total trading volume MILA 2014 in USD millions



Source: own elaboration

Following with the analysis of the development of the MILA market, it would result important to mention what the most negotiated stocks are in this market. According, to a report prepared by the Stock Exchange of Santiago appears the next scenario. (Arango Mejía, Jaramillo, & Valentina, 2012). Falabella, as Department Store Company well known in the region; in the

accumulated result is the most negotiated stock in the MILA with \$153 921 904, until December 2014 (Arango y Jaramillo 2013).

In this line, the list of the top negotiated stocks ends with the stock of Enersis with \$6 111 902, until 2014. This company is dedicated to the electric sector in South America.

Table 1. List of the most negotiated stocks at MILA market (December 2014)

<i>The most traded shares in MILA_Acumulated (USD)</i>	
S.A.C.I FALABELLA	\$153,901,904
PACIFIC RUBIALES ENERGY CORP	\$16,986,026
ECOPETRO S.A.	\$16,020,924
AGUAS ANDINAS S.A., SERIA A	\$10,073,799
E.CL S.A.	\$9,353,084
EMPRESA NACIONAL DE TELECOMUNICACIONES S.A.	\$9,128,767
GRUPO NUTRESA S.A.	\$8,860,286
COLBUN S.A.	\$7,913,801
SONDA S.A.	\$7,445,137
ENERSIS S.A.	\$611,190

Source: Own elaboration

4.2. Integrated Latin America Market Index – S&P MILA Andean 40

Stock index always tries to be a simple tool and easy to understand for the decision making process, for those investors and advisors of the stock market. Following with the review of the development of the Integrated Latin America Market, it is important to compare and appreciate the evolution of the S&P MILA Andean 40 index. "The S&P MILA Andean 40 is designed to measure the performance of the 40 largest and most liquid stocks in the Andean region (Chile, Colombia and Peru) that are traded on the platform of the Latin American Integrated Market (MILA), an integrated trading operation formed by the stock exchanges of Chile, Colombia, Mexico and Peru"¹⁴. Besides, the S&P MILA Andean 40 is an index class ("blue-chip") comprising the largest and liquid shares traded on this market (besides, some "liquidity" companies are linked to the use of corporate governance policies in order to project better or higher benefits to the investor).

For the methodology, it is the key indicator to track the performance of the MILA. It was designed to be easily replicated, maintaining its characteristic, namely the market regional stock. An also, it includes ceilings to ensure geographical diversity and limit the concentration in a single action (Farfan & Lizaraburu, 2016). In Table 2, it is appreciated the list of the forty stocks that composed the S&P MILA Andean 40 index. From this whole list, only 6 of them are from Peruvian companies what reflect the years on development that our brother countries have on the stock exchange markets. (Bolsa de Valores de Lima).

Following, with the review of the development of MILA in the next chart we are comparing the MILA index with the most important indexes of each market member. So, in a situation showed; for example, the IPSA for Chile, the IGBVL for Peru, COLCAP for Colombia and the IPC for Mexico. Important to highlight that these all indexes positive correlation with the MILA Index, basically because the Integrated Latin America Market is like a mirror and reflects the same positions and reaction of each of all these markets. (Bolsa de Valores de Santiago) (S&P Dow Jones).

After reviewing the strong correlation that exist between the principal indexes of the member countries with the S&P MILA Andean 40, now we

are passing to analyze the benefits of this integration. Another important aspect to consider and analysis, it is the relationship between currencies and the stock markets in MILA Market following the analysis made previously by Ajayi and Mougoué (1996) or the study made by Nieh and Lee (2002) focused in the dynamic relationship between stock prices and the exchange rates for G-7 countries.

The data was taken from the Central Banks from each country and the Index information comes from Bloomberg and Reuters platforms, the numbers of observations was 1317 that represent the period of time analyzed.

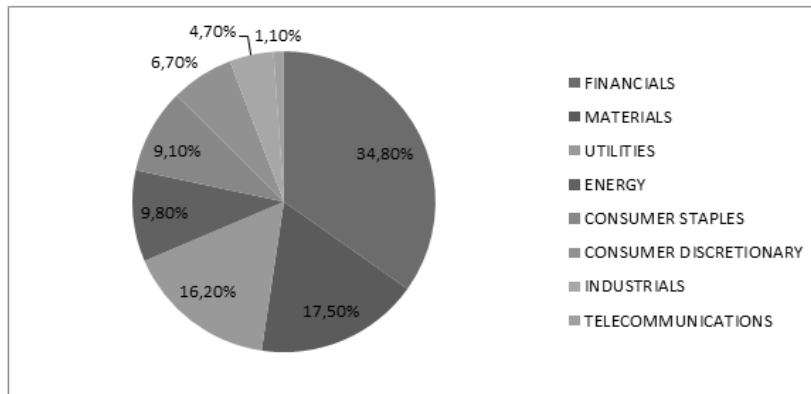
Table 2. List of the 40 stocks that composed the S&P MILA Andean 40 index¹⁵

<i>S&P Andean 40 MILA index- Stock</i>	
<i>Issuer Name</i>	<i>Country</i>
Antarchile S.A	Chile
Banco Santander Chile	Chile
Banco de Chile	Chile
Banco de Crédito e Inversiones	Chile
CAP - Cia de Aceros del Pacifico	Chile
COLBUN S.A	Chile
Cencosud S.A	Chile
Cervecerías Unidas S.A.	Chile
Cía. General Electricidad IND S.A	Chile
CorpBanca S.A.	Chile
Empresa Nacional de Telecomunicaciones S.A	Chile
ENDESA (Empresa Nacional de Electricidad S.A)	Chile
Empresas CMPC S.A.	Chile
EMPRESAS COPEC S.A	Chile
Enersis S.A	Chile
GENER S.A	Chile
Salfacorp S.A	Chile
Lan Airlines S.A	Chile
SACI Falabella	Chile
SOQUIMICH- Sociedad Quimica y Minera de Chile	Chile
Sociedad Matriz Banco de Chile S.A serie B	Chile
Vino Concha y Toto S.A	Chile
Alamecenes Éxito S.A	Colombia
Bancolombia S.A Prf.	Colombia
Banco de Bogota S.A	Colombia
Cementos Argos S.A	Colombia
Corporación Financiera Colombiana	Colombia
Ecopetrol S.A	Colombia
Grupo Aval Acciones y Valores	Colombia
Grupo Nutresa S.A	Colombia
Grupo de Inversiones Suramericana S.A	Colombia
Interconexión Electrica S.A-ISA	Colombia
Inversiones Argos S.A	Colombia
Pacific Rubiales Energy Corporation	Colombia
Alicorp S.A.A	Peru
Compañía de Minas Buenaventura S.A.A	Peru
Credicorp LTD.	Peru
Minsur S.A- Accs de Inversión	Peru
Southern Copper Corp	Peru
Volcan Compañía Minera S.A.A -B	Peru

Source: Own elaboration

¹⁴ <http://www-ewdc-stg.spindices.com/indices/equity/sp-mila-andean-40-index-cop>

¹⁵ <http://www-ewdc-stg.spindices.com/indices/equity/sp-mila-andean-40-index-cop>

Figure 10. Composition of the list of the 40 stocks that composed the S&P MILA Andean 40 index by sectors**Table 3.** Correlation between the currencies and stock markets of each member of MILA

	PENCur~y	MX~ur~y	COPCur~y	CLPCur~y	SPBLPGP~x	MEXBOL~x	COPLCAP~x	IPSA~x
PENCurrency	1,0000							
MXNCurrency	0,3209	1,0000						
COPCurrency	0,3894	0,4298	1,0000					
CLPCurrency	0,3761	0,5027	0,5344	1,0000				
SPBLPGPTIn~x	-0,3140	-0,3529	-0,3367	-0,3666	1,0000			
MEXBOLIndex	-0,1939	-0,4181	-0,3430	-0,3786	0,3672	1,0000		
COPLCAPIndex	-0,2094	-0,3178	-0,3389	-0,3100	0,3272	0,4317	1,0000	
IPSAIndex	-0,1932	-0,3359	-0,3340	-0,3295	0,4057	0,5257	0,4436	1,0000

Note: The Table 3 shows the correlation between the currencies of the MILA Countries in order to identify potential relations. The results shows that there are not correlation (positive or negative) between the currencies and the indexes.

Table 4. Statistics information of MILA currencies

	Obs	Mean	Std. Dev.	Min	Max
PENCurrency	1317	0,0001234	0,0026453	-0,024	0,173
MXNCurrency	1317	0,0003774	0,0072394	-0,0379	0,427
COPCurrency	1317	0,0004308	0,0070884	-0,0336	0,417
CLPCurrency	1317	0,0003239	0,0059127	-0,0241	0,042
SPBLPGPTIn~x	1317	-0,0001964	0,012275	-0,1245	0,0861
MEXBOLIndex	1317	0,0002058	0,009219	-0,0588	0,043
COPLCAPIndex	1317	-0,0001364	0,0092245	-0,0439	0,043
IPSAIndex	1317	-0,0001084	0,0087617	-0,0692	0,058

Source: own elaboration

The correlation between each currency (USD/OTHER) and the respective stock market of MILA's members is negative. Which means, that the currencies move in the same direction that the indexes of the respective country. It could be explained due to an increase in a stock index reflects the positive expectations of the economy, which is reflected in an increasing in the value of the domestic currency. It makes the ratio (USD/OTHER) get lower, due to the demand of domestic currency is increasing along with the positive expectations of the economy and with the increase of the stock index.

These results are in line with those of Jääskelä and Smith (2011), who conclude that a change in terms of trade can have an impact on the value of the exchange rate. The higher the demand for national exports, the higher the demand for the national currency¹⁶. In the case of MILA's countries is acceptable to assume that the main companies that list in the stock market exports

products or services. It influences directly the exchange rate and the stock market.

The last idea is supported by (Hema Divyaa & Rama Devib, 2014). The study focus in how the import and export will affect by the exchange rate volatility. "In their results the depreciation in currency can cause importers to pay more amount of domestic currency and an appreciation in currency can encourage the exporters to export more there by it can increase the foreign currency reserves. Exchange rate and foreign currency reserves are highly correlated which influence the GDP¹⁷"

Stock index is another important factor influencing GDP as revealed by the current study and is it aligned with the study made by Divya and Rama (2014). Market indexes are better predictors of GDP growth. The market is a better and timelier forecaster of future GDP, because the market has a financial stake in getting it right. (Hema Divyaa & Rama Devib, 2014). So, the expectations about an economy depends on the performance of the stock

16 Bouraoui, T., & Phisutthiwatcharavong, A. (2015). On the Determinants of the THB/USD Exchange Rate. *Procedia Economics and Finance*, 30, 137-145.

17 Divya, K. H., & Devi, V. R. (2014). A Study on predictors of GDP: Early Signals. *Procedia Economics and Finance*, 11, 375-382.

market, and the same time the exchange currency influence the stocks markets.

Besides the Table 5 shows the information between the currencies and the index S&P Mila 40

and in this case it showed only a partial negative correlation between the index and the return of the Chilean Peso.

Table 5. Summary information and Correlation between the currencies and the S&P MILA Andean 40 index

	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
<i>SPMILAIndex</i>	1044	-0,0004041	0,0100496	-0,0680111	0,0426934
<i>PENCurrency</i>	1044	0,0001004	0,0022639	-0,007929	0,0173105
<i>MXNCurrency</i>	1044	0,0003029	0,0072012	-0,0379158	0,0427358
<i>COPCurrency</i>	1044	0,0003009	0,0053983	-0,0314717	0,0252254
<i>CLPCurrency</i>	1044	0,0002887	0,0057239	-0,0223703	0,0419741
	<i>SPMILA~x</i>	<i>PENCur~y</i>	<i>MX~ur~y</i>	<i>COPCur~y</i>	<i>CLPCur~y</i>
<i>SPMILAIndex</i>	1,0000				
<i>PENCurrency</i>	-0,3296	1,0000			
<i>MXNCurrency</i>	-0,4852	0,3240	1,0000		
<i>COPCurrency</i>	-0,5794	0,3288	0,3968	1,0000	
<i>CLPCurrency</i>	-0,6495	0,3626	0,4904	0,5354	1,0000

Source: own elaboration

Given the fact that the last results show us a negative correlation between each currency (USD/OTHER) and the stock market of MILA's members, it is normal to expect that the SPMILA INDEX have a negative correlation with each currency. Indeed, the intensity of this relationship is even greater than the previous relationship between the currency and each stock market. It could be explained due to SPMILA INDEX is a set of stocks with the highest performance from each MILA member. So, when the expectations of these economies are positive, the values of their best stocks increase, and at the same time it increases the value of the domestic currency. Moreover, there exist an aggregate effect, if the demand of each domestic currency increases, the effect pass through the aggregate stock index of the MILA's members, due to the high expectations of better performance of the best stocks of each country.

The exchange rate uncertainty induces risk-averse investors, especially those of the counterparties to the US, to reduce their financial activities¹⁸ and to favor domestic rather than foreign assets in their portfolios in order to minimize their exposure to uncertainty. (Caporale, Menla Ali & Spagnolo, 2015). So, the stock indexes of MILA's members are subject to the exchange rate, due to the aversion risk of investors.

"A higher rate of economic growth is definitely stimulated by the real investments"¹⁹, which indirectly generate positive externalities on stock market indicators and in the real sector. (Ioan Cuza, 2012). There is a double relation between stock market performance and the GDP. So the SPMILA INDEX is influenced by the economies of MILA's member, which in aggregate determines the performance of the index. "Real investments have a key influence on economic growth rates"²⁰ which it is expected to enhance the development of the stock market, and, market capitalization influence on real investments, and, in consequence, on the national growth rates. (Ioan Cuza, 2012)

5. BENEFITS OF PARTICIPATING IN THE MILA

Several authors had studied the benefits in the integration of the stock markets in past (Vargas and Bayardo 2013) and some of them, for instance indicates that there are some "integrated markets" for the relation between the expected stock returns (Champbell and Hamao 1992), other fund influence between the financial market integration, stock market integration and monetary integration (Kim et al., 2005). Some of the potential benefits could be the use of corporate governance practices in order to standardized this important in the "MILA's" companies.

5.1. Benefits for the investors

The investors with the MILA have more alternatives to choose for financial instruments, they have more possibilities of investment. In the same way, the MILA's investors have the opportunity to create and manage new investment portfolios. Following the line, they also have access to stock markets which issuing members are strongly positioned in the mining sector of Peru, service and retail sector of Chile and the financial and energetic industry of Colombia that will allow them to create much diversified portfolios. (Bernal Torres & Alfonso Camargo)

"The idea is to provide investors with a broader supply of shares and share issuers with additional sources of financing"²¹. The integration of stock markets enables the interchange of capital flows between the markets in a way that is much more expeditious. (Retamal Smith, 2010). MILA will enable any citizen in these countries to invest in a particular market as easily as he or she does in their own country of origin. Thus, one would expect that small investors, who previously were unable to find such diversification because of problems of scale, could now do so perfectly. So (Piedrahita, 2010) the integration is an enormous step for deepening the markets of the region.

¹⁸<http://finance.wharton.upenn.edu/~bodnarg/courses/nbae/IFM/Chapter15.pdf>
¹⁹Carp, L. (2012). Can stock market development boost economic growth? Empirical evidence from emerging markets in Central and Eastern Europe. *Procedia Economics and Finance*, 3, 438-444.
²⁰idem

²¹ <http://knowledge.wharton.upenn.edu/article/the-benefits-of-mila-three-latin-american-stock-exchanges-unite/>

5.2. Benefits for the intermediators²²

The integration will promote and encourage more attractive and competitive stock markets for the investor. This will result in an increase of the type and number of financial products to distribute between their customers²³, the creation of much diversified portfolios by sectors that will show a lot of possibilities for their customers and also strengthen the technology sector as international standards. (Agudelo, Barraza, Castro, & Mongrut, 2012)

The companies will have the opportunity to attract a greater volume of capital and compete among themselves with new issues of shares in the stock markets (Leraul, 2016). Meanwhile, investors will be able to put their savings into different countries apart from their own, and they will be able to know and control them much better. (Tornabel)

5.3. Benefits for the issuers

Due to the huge possibility of alternatives, the issuers will see their benefit through a reduction in the cost of capital. They have an advantage because obtain the access to a bigger market from their own local market. Another benefit for this participants of the MILA is; for example, that the demand grow considerably catching the attention the interest of a bigger number of investors. Finally, as the other participants, the issuers may also improve their competitive in comparison to their similar in the region.

In addition, one would expect that greater competition between these stock markets would lead to lower transaction costs, more options for choosing among them, and possible mergers and acquisitions (Piedrahita, 2010). "Integration would make it easier to enter capital markets, which would translate into lower costs for financing, and better receptivity to public share offerings. Integration would benefit those firms that are listed on the stock markets that integrate, and even foreign firms, since it would provide them with a broader selection of potential buyers of their new shares"²⁴. It would increase the availability of brokers who can potentially negotiate share trades; it must increase the trading volume of the various shares. (Agudelo, 2010)

6. CONCLUSIONS

Financial integration has been being pushed by the expansion of regional trade and investment and liberalization of domestic financial sectors. In the specific case of the MILA, integration of stock markets represents for investors, entrepreneurs and intermediaries an important growth market but should take into account some variables difficult to control as the exchange rate. Investors, therefore, have to act taking into account the different economic realities of each country.

In the study, there is no evidence that there is a correlation or correlation between the currencies or their indexes, although there is evidence in the literature. It is expected in a second study with more data to establish better relations between currencies and indexes

For this integration continues to expand in an orderly way, the greatest contribution that governments can do is to coordinate efforts to improve the quality of information regarding the main financial assets that are traded on markets (Leraul, 2016). This improved information refers to progress towards the standardization of accounting principles, legal treatment, information requirements and quality.

The alliance is beneficial for the four markets, to the extent that a large basin of liquidity allows to access to more listed companies and because diversifies the variety of financial instruments traded forward is believed. All members should follow integration in order to reduce the cost of access to markets for cause, thus decreasing transaction prices. This benefits investors, the costs of management and transactions fall and then can achieve international diversification of their portfolios more easily. The alliance, finally, also benefits issuers allowing interest rates lower funding.

The integration of the markets and especially the MILA will be carried out in the next years, to the extent that there is an integration rather than a stock market, a monetary or currency one (spot exchange rate market), this to the extent that, for example, in Chile and Colombia there is no free Circulation of the dollar and Peru is a country where there is free circulation of the dollar.

In this research we do not propose the integration of the spot market in a regional way, but to the extent that there is no relation between the volume of that market (spot) and that of securities (bonds or shares) or that markets are similar (Not only referring to the circulation of the dollar, but perhaps to a market of derivatives), the development of MILA, despite the influx of Mexican or Brazilian Bourses, will not happen at the speed that the various agents are waiting for.

"The processes of stock market development and internationalization are caused by the common factors that share Chile, Colombia, Mexico and Peru"²⁵. The improvements in economic fundamentals and the introduction of reforms lead to more domestic stock market activity associated with a higher internationalization of stock issuance and trading²⁶.

The capital market integration and improvements in fundamentals have indeed a positive impact on the member of the MILA but it will be tangible in the following years. But this process has also helped countries and companies to obtain financing in international capital markets (debt or equity)²⁷, sometimes at the expense of domestic market development. With Mexico recently joining Chile, Colombia and Peru in the Integrated Latin American Market initiative, challenges have been experienced so far in

22 Leraul, D. J. (2016). Trading with Neighbors: Regional Stock Exchange Integration—The Mercado Integrado Latinoamericano. *Latin American Business Review*, 17(1), 49-71.

23 www.pwc.pe

24 <http://knowledge.wharton.upenn.edu/article/the-benefits-of-mila-three-latin-american-stock-exchanges-unite/>

25 Pulido, W. V., & Martínez, J. B. (2013). El MILA. Mercado de integración entre Chile, Perú y Colombia. *Revista de relaciones internacionales, estrategia y seguridad*, 8(1), 113.

26 <http://www.worldbank.org/>

27 [idem](http://www.worldbank.org/)

integrating their markets and the relevance of ensuring high standards across their four markets. Therefore, the globalization of markets has meant that corporate governance and information disclosure standards have been rising.

There are not a clear relation positive or negative between the exchange rate and the stock exchange market in the MILA economies so, in the future research and with more information (more than 1000 observations) and using Fama methodology it is possible to find relations and obtain positive (more than 0.7) or negative (less than -0.7) correlation.

Finally, the level of local stock market development in MILA is below what can be expected, given the region's economic and institutional fundamentals. The paper shows a shortfall in market capitalization, trading, and capital rising in the region. This suggests that certain intrinsic features of these countries are needed to study in order to explain this fact unearthed by the analysis (World Bank 2014).

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