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Latin American Integrated Market (MILA)

"A step in the development of Latin American financial markets"

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EXECUTIVE SUMMARY

Latin American emerging economies have growth substantially during the last decade, gaining participation in international investors' portfolios. The necessity of having more developed financial markets in these countries has been recognized not only by investors, but also by governments, which are mainly concerned to achieve sustainability of economic growth. Since this has become a common goal for governments in Latin America, financial integration and economic agreements have become part of the strategy for the development of the region.

The objective of this study is to provide an overview of a current financial integration process, which is the Latin American Integrated Market (MILA) formed by Chile, Colombia and Peru, which is an initiative of the economic integration called the Pacific Alliance that also includes Mexico. The first stage of this integrated market, a common stock trading platform, offers possibilities of diversification for investors, becoming more attractive and developing financial markets size. However, there is a long way to go in order to improve the different dimensions of financial markets development such as depth, efficiency, access and stability.

The study identifies the potentials of this integration, as a result of the member's synergies and diversity, recognizing the advantages over other economic blocks in the region and the challenges for the future development that this market faces. This not only highlights the aspects that should be developed such as equity market and bond market, but also suggests new areas that have not been considered by this integration such as new financial instruments and potential additional markets.

The findings in this study suggest that despite the notorious individual economic growth of each MILA country and that their integration has allowed them to compete against the giant in the region, Brazil, the full potential of the integration has not been materialized. MILA has only advanced 20%, which is the result of the abolition of several direct transaction cost and the integration of stocks systems, but advancing the remaining 80% will require more complex developments such as homogenization of financial regulation, financial reporting and economy policies, which are the cause of several barriers for financial integration. As it is concluded through this study, as countries' economic development increases, the importance of financial markets increases. Therefore, policy makers will need to continue improving financial markets, so they do not become a limiting factor to the economic development.

CONTENTS

INTRODUCTION

Since the 90's, the amount of studies that analyze the relationship between the financial systems and the economic growth has increased. The majority of these investigations have found that a well-structured and efficient financial system is a key factor for long term economic progress. The idea is supported by the fact that financial systems have an impact on the decisions of saving and investment, and they also represent the base for a financing supply of the economy's more productive sectors (Ferreiro, Gomez, Rodriguez, & Correa, 2007). Financial systems develop five key functions that allow and help the generation, allocation and use of capital resources: producing of ex-ante information about possible investments and capital allocation; investment monitoring and performing of corporate governance after providing financing; diversification and management of risk; pooling of savings; easing the exchange of goods and services (Levine, Finance and growth: theory and evidence, 2005).

In order to accelerate the economic development, it is necessary to increase the investment capital supply through a growth of internal savings and an enhancing of the economic capacity to capture increasing foreign capital investments flows. But even more important to these developments, economies must be capable to guarantee an efficient allocation of these resources in order to achieve the highest investment level possible (Ferreiro, Gomez, Rodriguez, & Correa, 2007). With the aim of accelerating the economic growth during the last decades, Latin American economies have reduced regulations on financial markets and national financial systems. During the late 80's, it was well-defined that Latin American countries were suffering a lack of investment capital and inefficiency of local banks and financial intermediaries (Ferreiro, Gomez, Rodriguez, & Correa, 2007). However, several studies have concluded that this deregulation in Latin American markets has not had the expected results and even though many of these economies have registered considerable positive economic growth rates during the last decade, this evolution is not explained by the deregulation in financial systems.

Financial systems offer different mechanisms of financing for corporations. Despite of bank loans being the most popular source of financing for Latin American corporations, other sources such as equity and bonds have gained some importance for these corporations. The way that bank loans and bonds become complements and substitutes has been discussed by several authors and due to the development of corporate debt markets in emerging countries, there has been a shift of financing from the traditional bank loans to debt instruments such as corporate bonds. Nonetheless, there are

limits on the ways that corporate bonds can substitute ordinary corporate loans. This study takes into consideration this relationship between these two markets and supports the idea that the development of one of these markets has an impact on the progress of the other, and therefore, an impact on the cost of financing.

Since the time Latin American countries obtained their independency, several agreements have been signed up by these in order to generate competitive advantage in different scopes and compete with other economies around the world. These agreements have attempted to generate integration in many different levels such as political, military, trading and financial, being the last one a main concern during the last decades. The Pacific Alliance is the last attempt of integration across Latin American countries, promoting the free movement of goods, services, capital and people between Chile, Colombia, Peru y Mexico. As a result of this integration and with the main purpose of achieving a financial integration across financial markets in the Pacific Alliance, the Latin American Integrated Market (MILA) started operations two years ago. Even though this market only included equity markets from Chile, Colombia and Peru, the project is planned to extend onto fixed income markets and will be followed by Mexico shortly. This market has been created as a tool to compete, not only against the Brazilian market, but also as a mechanism to integrate its members to the global economy.

The main goal of this paper is to find the link between the integration of financial markets in MILA and the long term economic growth for its members. This study investigates how a more developed financial markets, not only could offer more competitive financing for corporations, but could also assure an alternative supply of capital during periods in which banks liquidity limits the credit. It is recognized that cheaper and more stable financing sources for corporations, which are the driving force of the economy, guaranteeing a considerable and sustainable economic growth in the long run for these countries. However, as this initiative progress, it is important to determine the key drivers for the integration in these economies and how these can be improved in order to contribute to the economy in general.

This paper is inspired by all the efforts that Latin American countries have done during the last decades with the intention to achieve a higher and sustainable economic growth in the long term and the importance of bringing recommendations in maturing initiative.

PROBLEM STATEMENT

The main problem identified by this study is stated below:

Does the Latin American Integrated Market have a positive impact on the financial systems of its members, improving access for financing and sustainability of long term economic growth?

DELIMITATION

This study focuses on the effects of integrations of financial systems, specifically financial markets, on the development of the private sector. It does not focus nor tries to address the impacts that this kind of integration has over the financing capacity of the government and other public agencies, therefore, sovereign debt is not considered by this study.

A financial integration has several effects on financial institutions, affecting the sources of finance as well as the potentials for investments; therefore, the environment for intermediaries such as financial institutions is also affected. However, investment opportunities for financial institutions are subject to several regulations both local and international accords for example the Basel II and Basel III agreements. Hence, this document does not try to explain directly how a financial integration impacts the investment opportunities for financial institutions, but rather it uses the effects of the integration over investment opportunities as a variable to explain the impact to the sources of finance.

During the time the paper was being written there were several meetings between the members of the Pacific Alliance and other countries that were interested on joining this selected group. As a result of this, Costa Rica is currently in process to join the alliance and Panama is discussing its inclusion as well. However, the scope of this research was set on December 31st, 2012, therefore, the analysis is elaborated base on the configuration that this alliance had by that time.

Finally, it is important to mention that 2008 and 2011 were both years heavily volatile and negatives regarding returns. Since volatility is an important topic in this study, this situation makes more appreciable the effects of diversification, however, it also makes difficult to obtain conclusions regarding returns.

DATA

All the data used in this study was gathered in local currency and its value in American dollars (USD) was calculated using the official exchange rates publicized by the central banks of each country. There are basically two sources of data used during the analysis, these are described below:

First, historical data of the equity indexes of MILA and countries members of this market. This data was gathered using DataStream and it corresponds to the daily price's indexes from January 1st of 2003 to 31st of December of 2012, which represent 10 years of data. Additionally, due to the fact that MILA started operations in May 2011, Google Financials was used to gather data of the index in this market, since this was the only source that had a simulation of the index from 2007. This allows comparing all the indexes in a longer period, which improves the study's conclusions.

Second, Bloomberg was used to collect the information of issuances made by corporations in Chile, Colombia y Peru January 1st of 2003 to 31st of December of 2012 and all the active securities in these markets at December 31st of 2012 according to Bloomberg. This included financial and non-financial corporations, but excluded banks or government agencies that could have issued bonds in order to finance government expenditures. However, information gathered from Bloomberg contained mistakes; therefore, it was corrected by the authors based on information contained in other reports from different financial entities of the countries studied. Different methodologies and criteria is used to build these reports, as a result, these will differ in the results i.e. total amounts. Nevertheless, the evolution's trend of corporate bonds in these countries is similar, for that reason it is believed that data after corrections is close to reality.

STRUCTURE

This paper is structured in four chapters. Chapter I reviews some theoretical and empirical papers elaborated by different authors that have researched about financial integration and the development of financial markets. This chapter includes the main theories that are applied to reach the conclusions in this paper. Chapter II reviews the integrations and alliances between different Latin American countries in order to understand the motivations behind the Pacific Alliance, as well as an economic review of selected economies. Chapter III gives a better understanding of the Latin American Integrated Market (MILA) as a tool of the Pacific Alliance for the financial integration, including an analysis of members markets' performance. Furthermore, this chapter includes a benchmark of financial markets with selected countries from the region. Chapter IV develops an

analysis about the opportunities that MILA has as well as recommendations. The study is finalized with a discussion of the implications of MILA on the ongoing financial markets development process in Latin America and, exposing the main findings.

CHAPTER I: LITERATURE REVIEW

In this section, a review of relevant theory about financial integration, postulated by certain authors, is elaborated. These studies have been popular for more than 30 years, counting from nowadays to the past; thus, not only there are researches from the 80s, such as those elaborated by Stulz, but there are also more recent authors that have contributed to this topic, such as Hardouvelis, Malliaropolus and Priestley (2006). Based on the findings of these investigations, a theoretical framework is created, allowing an analysis on the performance of the Pacific Alliance, especially on MILA, as a tool for financial markets' integration of members that participate in this alliance. Additionally, some micro and macroeconomic theories, that point out the relationship between different sources of financing, the cost of capital and the long term economic growth, are appraised in this segment.

1.1 FINANCIAL INTEGRATION

Since the term "Globalization" became popular in different levels such as business and culture, cross border trade of goods and goods market integration have been studied by several researches. In the last decades, these studies have focused on the flows between financial markets and the impact of financial integration on the sources of financing, this has included authors like Brennan and Cao (1997), Divecha, Drach and Stefek (1992), Harvey (1995), Stulz (1981), Portes and Rey (2005) and Wilcox (1992).

As economic integrations become more popular, the numbers of empirical studies that analyze how these integrations have a positive impact on the cost of financing also increases. Hardouvelis, Malliaropolus and Priestley (2006) studied the integration among financial markets in the Eurozone since the Economy and Monetary Union (EMU) was formed on January 1, 1999. This study shows that the launch of a single currency in the Eurozone was positive for the integration of financial markets, however, more important than this was the economic synchronization as a the result of the Maastricht criteria for joining the Eurozone, which created a convergence of inflation and long-term interest rates, and therefore the convergence of real risk-free rates.

René Stulz (1999) argued that international financial integration causes a decrease in the cost of capital due to two reasons. First, the expected return demanded by investors in the individual assets available generally drops, because investors do not worry about the securities' risk as individual assets, but instead about the impact of securities in their portfolios. This is the result of more

diversified portfolios, which allow investors to improve the risk – return ratio. Second, companies become less concerned about the agency costs of raising funds, which increases expected cash flows for investors by improving the control and monitoring on management and shareholders.

Economies activities around the world differ from each country to other. This is the result of competitive advantages, which cause that every country increases the investment in the industry that it is more competitive, generating more value. Subrahmanyam (1975) assumed a hypothetic scenario, where financial markets from two different countries (A and B) are fully segmented. Investors in those countries are only able to invest in securities available in local markets. This means that these investors bear all the risk of the specific industry in which the country's economy is specialized. When barriers are removed and investors from country A are able to invest in securities in country B, and vice versa, foreign investors share the risk of the local industry with the local investors and the risk in foreign economies is shared by both group of investors as well. This opportunity of being exposed to different sources of risk, which can offset each other due to portfolios diversification, is one of the main reasons for financial integration.

As elaborated by René Stulz (1999), the impact of diversification when financial integration occurs is illustrated by a simple example. The model, which is explained below, contains the following main assumptions:

- Investors make their investment decisions based on the expected return and the variance of their portfolios.
- The world is constituted by a large number of small countries.
- The expected value and variance of every single local market portfolio are the same across all the countries.
- Returns of all the local market portfolios around the world are uncorrelated.

Under these assumptions, when the barriers are removed and become open to each other, creating an integrated market, the expected return of each investor is not determined by how they invest their wealth across countries. On the other hand, the variance of each investor's portfolio is inversely correlated with the number of countries in which part their wealth is invested. Therefore, as more countries are included in these portfolios, the variance's portfolios decrease. Consequently, as portfolios turn into more diversified portfolios, including more securities from the different

countries in the world, the variance of the expected return becomes insignificant. Hence, the risk premium also becomes trivial for investors.

The idea that all risk can be entirely diversifiable is only possible in this unrealistic world assumed by René Stulz (1999). In real life, this is impossible to achieve regardless to the number of assets included in investors' portfolios. Type of risk such as systematic risk cannot be diluted by diversification.

Emerging markets have increased their participation in international equity portfolios during the last decade. As these markets become more important for investors' portfolios, the number of authors that analyze this shift also upsurges. Bekaert (1995) studied how the tradeoff between the diversification benefits and the opportunity costs is an issue that is associated with the investment barriers of investing in these markets. One of the main objectives of his study was to identify the integration's level of emerging markets with developed economies and how this integration is determined by the existence of investment barriers. There are three types of investment barriers that have been likewise identified by researches regarding financial integration:

- Legal barriers, which are developed due to differences in the legal statuses between local and foreign investors (i.e. ownership rights, taxes)
- Indirect barriers, as a result of differences in the information available for local and foreign financiers, accounting standards and investors' protection.
- Emerging market's specific risks that can have an impact on foreign investment. These barriers are represented by the components of the risk premium; liquidity risk, political risk, economy policy risk, macroeconomic instability and currency risk.

Bekaert (1995) identified a group of barriers form those mentioned above which have an effective impact on creating limitations for international integration in emerging markets. According to Bekaert, the countries that are less integrated with the world market are those that present the following factors:

- Poor credit ratings
- High and volatile inflation.
- Controls on the exchange rate
- Low quality on regulatory accounting standards

- Insufficient country funds or cross-listed securities.

Despite the existence of investment barriers in emerging countries, it is clearly observable that markets are not totally segmented (Stulz R. , 1981). As it was stated by Barr and Priestly (2004), local markets are partial integrated into the world market, since part of the returns of securities traded in these markets are explained by risk factors that affect the world market, therefore, it is clear that a correlation between them exists. Foreign investment has entered in emerging countries, as a result of the higher average returns that this markets offer, which are superior to the opportunity-cost of investing in these markets. Furthermore, the unusual relationship of these markets with the developed ones represents an opportunity for diversification (Harvey, 1993). However, as foreign investment increases in these markets, correlations with the world market also increase. This was concluded by Harvey (1993) in his empirical study about correlation on emerging markets. This study involved the parallel of twenty emerging economics, including Chile, Colombia and Mexico, between 1976 and 1992. This and other papers elaborated during the 80s and 90s, which analyzed correlations between emerging markets and the ones of these markets with the world market based on the CAPM, were heavily criticized due to high imperfections of financial markets in emerging countries. As it was argued by Mullin (1993), low correlations during some periods were the result of minimum trading, attributable to the small size of these markets. However, the development of emerging markets during the late 90s has helped on supporting the veracity of this kind of studies.

The concept of financial integration arises as the necessity of eliminating the barriers for transactions across markets from different countries in order to liberate these economies. Knowing that markets are imperfectly competitive, the integration of two or more markets creates a process of price adjustment in order to mitigate these differences (Sutherland, 1996). As a result of this, the volatility of many economic variables is also affected by the financial integration. Sutherland (1996) constructed a model to analyze these volatilities based on the findings of Obstfeld and Rogoff (1995) when they studied how equilibrium prices are established after the integration of two countries in a single period model. Two modifications were included by Sutherland in order to capture the effect of financial integration on the instability of economic variables. First, he included some restrictions to the mobility of financial capital from a country to other. Second, the model was configured in a multi-period instead of a single one, this, with the aim of studying the different effects in both, the short and long run. The model identifies three types of shocks that economies

are exposed to when different markets are integrated. Money supply shocks, goods demand shocks and labor supply shocks can be generated by variances in factors such as interest rates and exchange rates between the integrated markets [1]. Sutherland's pronouncements suggest that financial integration tends to decrease the volatility of the economic variables in a short run. Only in the case of monetary shocks, which occur when the supply of money in the economy is affected, volatility of the nominal exchange rates increases significantly.

During a financial markets integration process, stock market liberalization becomes a crucial stage. This liberalization is seemed as the decision of a government, which allows foreign investors to trade securities in the local market (Henry, 2000). This is achieved through the elimination of barriers and transaction cost, which were mentioned previously. Henry (2000) states that equity price index increases in emerging markets as result of market liberalization, generating an abnormal equity index return of 3.3% on average. This is interpreted as a lower cost of equity for local companies, which is the result of the risk sharing between local and foreign investors.

1.2 THE ROLE OF FIANNCIAL SYSTEMS ON ECONOMIC GROWTH

Pan and Wang (2013) summarize two different points of views regarding the role of finance on the economic growth. They mention that there are two major positions on the existing literature. The first one explains that well-developed financial system can make the economy more productive and enhance the economic process. Furthermore, a developed financial system reduces asymmetric information between savers and investors, improves risk sharing, and decreases transaction costs. The second point, which is also supported by Lartey and Farka (2011), indicates that financial crises have a negative effect on economic growth and the effect of the impact is directly related to the level of financial development. Therefore, countries with more developed financial systems are more affected by the crisis than those who are still developing.

Pan and Wang (2013) concludes that for well developed countries, government regulations and monitoring of financial systems are necessary and key to avoid and reduce the chances of financial crisis. While for countries with developing financial markets, government policies should try to promote financial reforms to develop them.

[1] See Sutherland (1996) for further discussion about these issues.

In order to understand the development of financial systems across countries, it is necessary to benchmark them. Cihak, Demirgüç-Kunt, Feyen and Levine (2012) develop a methodology that has started to be used by international institutions such as the World Bank. This study acknowledges that financial systems are multidimensional and have four major characteristics: depth, access, efficiency and stability. Financial systems tend to be different subject to the components of these four characteristics. As part of the study, it is proven that as economies develop, the relative importance of services provided by financial markets increases with respect to those provided by banks (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012). Sehgal, Ahmad and Deisting (2012), after analyzing 75 countries for the period 1990 to 2009 conclude on similar line that banks play important role across all income groups. Savings are a key driver for economic growth for low and middle income groups; the economic growth propels stock market development for low income countries and reinforced the middle income group. At the same time the stock market emerges as a driver for economic growth for high income countries.

The four characteristics are measured separately for financial institutions and financial markets (both equity and bond markets), leading to matrix (4 x 2) of financial system characteristics which is applied in subsequent chapters to the Pacific Alliance countries.

1.2.1 FINANCIAL DEPTH

Financial institutions: The variable to measure the financial depth that has received the most attention is private credit. Private credit development is defined as deposit money bank credit to the private sector as a percentage of GDP. Demirgüç-Kunt and Levine (2008) demonstrate the relation between financial depth, approximated by private sector credit to GDP, and long-term economic growth. Their cross-country regressions confirm a strong positive relationship between these two variables. This measurement isolates credit issued to the private sector and excludes credit issued to government agencies and public enterprises. Private credit also excludes credits issued by central banks.

Cihak, Demirgüç-Kunt, Feyen and Levine (2012) extend the study of King and Levine (1993), in which they perform several regressions between Real Per Capita Growth, Real per Capita Capital Growth and Productivity Growth as dependable/endogenous variables with Financial Depth as independent /exogenous variable. They find a strong correlation between financial depth and economic growth over the time period 1960 to 2010.

Financial markets: The most common measure of the stock market is the market capitalization to GDP. It is possible to obtain cross-country data on stock and bond markets (both sovereign and corporate). For bonds, it is the outstanding volume of debt securities (private and public) to GDP and, for the stocks it is the market capitalization to GDP.

The measure of stock market development used is the value traded, which equals the value of market transactions as a share of GDP. This indicator also considers the size and activity of the market, not simply on the value of listed securities. This is done in order to incorporate the close relationship between the trading of ownership claims on firms and economic development as evidenced by Levine and Zervos (1998).

The relative size between financial institutions and financial markets is also important (Demirguc-Kunt, Feyen, & Levine, 2012). The ratio between these two variables is called financial structure ratio. It can be used to identify the degree to which the financial system is relatively bank-based or market-based. The financial structures are different across the world where the annual average value of the financial structure ratio is 279. In countries such as Australia, India, Singapore, and Sweden have this ratio at or below 2.35 (10th percentile), while Bolivia, Bulgaria, Serbia, and Uganda are examples of countries where this ratio is over 356 (90th percentile). There is an indication that as the financial system develops the importance of the financial markets relative to the banks increases.

1.2.2 FINANCIAL ACCESS INCLUSION

Financial access inclusion aims to measure the capability of the financial system to allocate financial capital based on the quality of a project and entrepreneurship regardless accumulated wealth and social connections. An effective financial system provides financial services to a range of firms and households, not only to large corporations. Therefore, this dimension tries to go further than the depth, by trying to measure the degree to which the public can access financial services. (Čihák et all 2012). The idea behind this measurement is that a low financial access indicates that financial services are concentrated in few economic players good investment opportunities are missed.

Financial institutions: There are several variables used to measure access to financial institutions, however, it is recognized that the number of bank accounts per 1,000 adults is the more representative measure of financial access inclusion. Other variables in this category include the

number of bank branches per 100,000 adults (commercial banks), the percentage of firms with line of credit (all firms), and the percentage of firms with line of credit (small firms) (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

It is important to note that these variables also have weaknesses. For example, the number of bank branches has become a poor indicator with the move towards branchless banking and the popularization of e-banking. Furthermore, the number of bank accounts does not reflect that some persons can have several bank accounts.

Financial markets: The data over access to financial markets is rarer. In order to approximate access to stock and bond markets, concentration is used as a measure of this indicator. The logic behind this, it is that a higher degree of concentration leads to greater difficulties for access for new or smaller issuers. The variables used include percentage of market capitalization outside the 10 largest companies, the percentage of value traded outside of top 10 traded companies, government bond yields (3 month and 10 years), ratio of domestic to total debt securities, ratio of private to total debt securities (domestic), and ratio of new corporate bond issues to GDP.

1.2.3 FINANCIAL EFFICIENCY

Financial efficiency on institutions tries to measure the cost of intermediating credit. Overall a higher efficiency allows increasing the resources that can be allocated in the financial systems.

Financial institutions: Financial efficiency on institutions includes indicators as overhead costs to total assets, net interest margin, lending-deposits spread, non-interest income to total income, and cost to income ratio. Related variables are return on assets and return on equity. Although efficient financial institutions tend to be profitable, the relationship is not very direct, for example, an inefficient financial system can post relatively high profitability, if it operates in an economic expansion, at the same time an efficient system that is hit by an adverse shock can generate losses. Therefore, these measures of efficiency are not without flaws (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

Financial markets: The efficiency of financial markets focuses more on measuring the volume transactions rather than the cost of transactions. The most common measure of efficiency in the stock market is the turnover ratio which consists of turnover to capitalization in the stock market. In the bond market, the most commonly used variable is the tightness of the bid-ask spread (with the

U.S. and Western European markets showing low spreads, and Vietnam, Peru, Qatar, Dominican Republic, and Pakistan reporting high spreads) and the turnover ratio. (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

1.2.4 FINANCIAL STABILITY

There are many areas covered by policy making with reference to financial stability such as systemic risk, stress tests, and other tools that measure the vulnerability of financial systems. The importance of financial stability on the macroeconomic stability leads that this topic is sometimes treated separately. (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

Financial stability is a part of the broader financial development process. For example, in a country where bank lending standards become very loose, with banks providing loans with a lack of risk management and loan monitoring, it will lead to a rapid growth. This will be interpreted as a sign of deepening and increased access to finance. Also, the financial sector can seem efficient, even more, if the loan approval process is weak, banks would be able to lower their costs, at least until the loans went into default. However, in all these situations, the system would be very unstable and ultimately would likely end in a crisis situation. (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

Financial institutions: A measure of financial stability over financial institutions is the z-score, which is a variable that explicitly compares buffers (capitalization and returns) with the potential for risk (volatility of returns). The z-score has gained traction as a measure of individual financial institutions "soundness" (e.g., Boyd and Runkle (1993); Demirgüç-Kunt, Detragiache, and Tressel (2008); Cihák and Hesse (2008)).

The z-score is defined as $z = (k+\mu) / \delta$, where k is equity capital as percent of assets, μ is return as percent of assets, and δ is standard deviation of return on assets as a proxy for return volatility. In other words, if returns are normally distributed, the z-score measures the number of standard deviations a return realization has to fall in order to deplete equity. (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

The z-scores have several limitations. The most important limitation is that the z-scores are based purely on accounting data. Also, it looks at each financial institution separately, missing the correlation between financial institutions that may cause loss to other financial institutions when a default occurs in one financial institution (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

One alternative indicator of financial instability is excessive credit growth. A developing financial sector is likely to report expansion in credit growth. A very rapid growth in credit is one of the most common factors associated with banking crises (Demirgüc-Kunt and Detragiache (1997) and Kaminsky and Reinhart (1999)). IMF (2004) estimated that about 75 percent of credit booms in emerging markets end in banking crises. These credit crises are normally the result of two factors; first over optimistic expectation about the future of income and assets price and second high capital inflows. (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

Financial markets: The most commonly variable used for measuring of stability is market volatility. Another variable is vulnerability to earnings manipulation. Earning manipulation is derived from certain characteristics of information reported in the financial statements of companies that can indicate manipulation. The measurement is defined as the percentage of firms listed on the stock exchange that are susceptible to such manipulation. In the United States, France, and most other high-income economies, less than 10 percent of firms have issues concerning earnings manipulation; in Zimbabwe, in contrast, almost all firms may experience manipulation of their accounting statements. In Turkey, the number is close to 40 percent. (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

Other variables that try to approximate a measure over volatility in the financial markets are the price/earnings ratio (stocks) and duration (bonds). These variables are used with the assumption that market prices contain expectations of future cash flows and growth instead of current fundamentals only (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

1.3 RELEVANT THEORIES

In the following section, relevant theories and how they are related to this topic are mentioned. When financial markets integrate, there are several theories that will impact. Overall there are four economic theories: Portfolio Theories, Agency Cost, Microeconomic Theories and Macroeconomic Theory. All of them are important to have an integral view of the changes.

1.3.1 CAPITAL ASSET PRICING MODEL AND COST OF CAPITAL

The CAPM model established by Jack Treynor (1961) William Sharpe (1964) and Jan Mossin (1966) has been used by several studies as the main tool to understand the impact of financial integration on cost of capital. In this model it is assumed that investors make their investment

decisions only based on the expected return and volatility of their portfolios as it was established by Markowitz (1952) in his portfolio selection model. Therefore, they do not evaluate individual assets as separate investments, but instead they evaluate these assets as small shares of their portfolios, contributing to the overall performance of their portfolios.

According to the CAPM model, investors require a risk premium due to the risk they have to bear. Therefore, the risk premium grows as the riskiness of the asset increases. The asset's risk is determined by the variance of its returns. Hence, if it is assumed that investors have the same risk-diversion degree and they use Markowitz portfolio selection model, an asset A, which its variance's return is the double of the one of asset B, and has a risk premium as twice as asset B. Under these assumptions, all investors construct their portfolios similarly and hold the same assets. As a result, this portfolio becomes the market's portfolio (M), which includes all the risky securities according to their market value (Bodie, Kane, & Marcus, 2011).

In the CAPM model, the risk-premium of the market portfolio is established by its risk and the investors' average degree of risk aversion (Ā) in that specific nation. This is showed in the equation (1). Since the market portfolio is the optimal portfolio in this country, its risk premium becomes the reward demanded by investors caused by the systematic risk, which cannot be diversified.

$$E(r_M) - r_f = \bar{A}\sigma_M^2 \tag{1}$$

The risk premium of each individual security in the CAPM model is represented as a proportion of the market portfolio risk premium. This relationship is explained by the beta (β) of each security, which determines how much of the security's return and market portfolio's return move together. Equation (2) shows how the beta of each security can be calculated from the covariance between the market and specific asset divide by the variance of the market. This also can be interpreted as the contribution of the risk of each individual security to the risk of the market. Hence, the beta of the market portfolio is always 1 and can also be calculated as the weighted-average value of all securities' beta at its market value.

$$\beta_i = \frac{\sigma_{i,M}}{\sigma_M^2} \tag{2}$$

Consequently, the risk premium of each security is expressed by this equation:

$$E(r_i) - r_f = \beta_i[E(r_M) - r_f] \tag{3}$$

When a company decides to develop a project, shareholders discount the expected cash flows of the project at their required rate of return, determined by the CAPM. In the same way, Investors discount cash flows for different kind of securities in financial markets, determining their market value (Stulz R. , 1999). As equation (4) shows, the expected return required by the market on a risky security is calculated as the risk free interest rate, plus, the risk premium of that specific security, which is the security's multiplied by the risk premium of the market.

$$E(r_i) = r_f + \beta_i(E(r_m) - r_f) \tag{4}$$

Such relationship between the market's risk premium and the risk premium in each individual security causes that all securities whose returns have a positive covariance with the market's portfolio, becoming more advantageous when the risk premium in the market's portfolio decreases. By reason of the covariance between the market portfolio and each security being positive, this advantage typically increases as the covariance rises. Higher positive covariance turns a beta also into higher and positive, which increases the impact of a reduction of the market's risk premium on the risk premium of this security. As a result, the impact of a reduction of the risk in the market's portfolio on the required rate of return is higher on those securities with higher covariance and therefore the present values of these securities also is positively affected.

When the cost of capital drops in a country because of financial integration, it is possible that not all the companies in the country are positively affected by this integration. Based on the CAPM, the country cost of capital is estimated as the value weighted average of the cost of capital across all companies (Stulz R. , 1995); hence, it could be possible that the cost of capital decreases for some companies but increases for others[2].

In addition, companies differ in their capabilities to access financial markets; some of them can only issue their securities in local markets, while large companies are able to do this in international markets. This situation is important to analyze the impact of financial integration on companies' cost of capital. When a company has access to foreign markets, its risk premium and its cost of

[2] This effect is observable in the globalization of financial markets. If a company has a low correlation with the local market portfolio but a high correlation with the world market portfolio, its risk premium increases when the local market is integrated with the world market. Consequently, the cost of capital of this company increases (Stulz R. , 1999).

capital is determined by the market in which it has issued its securities (Stulz R. , 1999). Financial integration does not have any impact on foreign companies' cost of capital, when the local market size is insignificant compared to the global market. The integration between these two markets does not have any impact on the global market's risk premium, but it has on the risk premium of the local market.

On the other hand, when companies only have access to local market, the effect of financial integration on their cost of capital depends of betas with local and global market. If the beta with the local market is high, but the beta with the global market is low, an integration of the local market to the global market generates a considerable decrease on the cost of capital (Stulz R. , 1999).

RISK PREMIUM COMPONENTS

Every time an investor recognizes a possibility of losing his investment, the necessity of demanding a premium for bearing that risk arises. As mentioned before, the CAPM model explains how the risk premium of each individual asset is calculated by using its beta. However, this risk premium is more than a simple calculation; it is composed by different types of risks which are used by investors to determine premium required to invest in that specific asset. These risks are classified according to different criteria by each author, and sometimes one or two more are included, but all together with the systemic risk represent the spread between the risk free rate and the return of any asset. Most studies agree on the existence of five main components of the investments' risk premium, e.g. credit and default risk, liquidity risk, industry or business risk, country-specific risk and exchange rate risk. For this reason, this study focuses on these five components in order to analyze how financial integration and its impact on diversification in financial markets have an effect on market risk premium.

CREDIT AND DEFAULT RISK

Credit and default risk are the type of risk linked to the capability that the issuing company has of paying interests or repaying the amount borrowed. The higher the probability to default, the higher the risk premium investors demand in order to invest in the bond (Longstaff, Mithal, & Neis, 2005). Additionally, the default risk takes into consideration how much of the principal's value can be rescued in case the borrower defaults on its debt. This feature is usually called recovery risk and determines which percentage of the principal still has value for the investor after a credit event as

default (Hull, 2010). This entails that when the recovery rate increases, so does the price of the bond due to the lower risk premium demanded by investors in that specific asset.

There are different tools that can be used by investors in order to mitigate the credit and default risk in loans and corporate bonds (Bessis, 2007). For example:

- Collaterals are assets that the lender can hold and sell when a credit event occurs in order to recover part of the principal.
- Guarantees from a third party are used in case the primary borrower fails in interest or principal payments.
- Covenants give lenders the right to terminate a debt contract in case the borrower does not meet certain parameters. These covenants can be financial, which can include different ratios as a measure of the borrower's credit health. They can also be qualitative, limiting the actions that the borrower is allowed to take.

Credit and default risk are positive correlated with the level of debt. Therefore, all other things being equal, a corporation with a higher debt to equity ratio is perceived by investors as a riskier company than one with lower debt to equity ratio. .

LIQUIDITY RISK

Models of asset pricing, such as the CAPM, assume zero transaction cost and investors can trade securities until they achieve the best portfolio. However, in reality, trading costs are very important for investors, these are not only included-fees that must be paid in order to be traded, but they are also a value in price that assets loose when they are negotiated (Bodie, Kane, & Marcus, 2011). The liquidity is measured by the ease and speed in which an asset can be sold at a fair market price. Hence, a perfect liquid asset is one that can be sold at any moment without any lost in its price.

The liquidity can be measured through the cost of liquidation, which is calculated by multiplying the market price by half of the bid-offer spread (Hull, 2010). The size of an issue has also an impact on the liquidity risk. Considering all the things equal, liquidity risk is relatively low for large issues, while it will be higher for small issues. This is due to the amount of investors that hold the asset, which for large issues is considerably high, creating a deep market in both ask and bid prices.

It is important to highlight that during financial distress the cost of liquidation increases substantially. This is caused by the volatility in markets, which increases bid-offer spread (*Si*) and consequently the cost of liquidation.

INDUSTRY RISK

Every single industry is influenced by different factors such as prices structure, input costs, competitors and specific government regulations. Characteristics of these factors differ across all industries, creating a unique combination for each economic activity. This leads to diverse levels and a distribution of net cash flows according to the industry or business in which they operate, creating businesses with different levels of risk. This type of risk is called industry risk (Carrieri, Vihang, & Sergei, 2004). Traditionally, it is measured by the beta's industry; the lower the beta is, the lower the risk in the industry.

Regarding financial integration, it is important to highlight a feature of the industry risk; those industries that are low correlated either with the local market index or with the global market index, represent high opportunities for the diversification of investors' portfolios when a financial integration occurs.

COUNTRY SPECIFIC RISK

This type of risk, in the case of corporate bonds and loan, is associated with the nation where the borrower is located. There are many factors such as politic situation and macroeconomic indicators that can have an influence on the financial situation of companies located in a specific country (Eaton, Gersovitz, & Stiglitz, 1986). Therefore, investors recognize these factors as sources of risk that can create uncertainty on the environment where corporations operate, which have an impact on their performance (Citron & Nickelsburg, 1987).

Country-specific risk becomes more relevant in the case of emerging economies. These economies are especially attractive for investors due to the higher yields that assets offer in comparison with developed markets. However, higher yield means higher risk, which is the result of unpredictable GDP growth rates and instable economic policies (Claude, Campbell, & Tadas, 1995). As a result, traditional asset allocation models used in developed markets tend to fail when these are used in emerging markets.

Nowadays, rating agencies such as Standard & Poor's, Fitch, Moody's and DBRS follow closely the economy and political situation of many countries around the world, frequently announcing ratings to classify the level of risk of investing in those nations. The same scale used by agencies to rate corporations is used to do so with countries. Each agency uses a different nomenclature to classify the level of risk, but all these systems are interpreted by analysts in the same way, which allow them to identify four main ranges for these ratings, e.g. default, speculative, investment grade and prime, being the later the safest investment[3].

EXCHANGE RATE RISK

This type of risk affects in two different ways the asset's value. First, it has an impact on the value of companies' imports and exports, which results in a decrease or increase of the net cash flows. This situation affects the company's value and all assets related to the business such as corporate bonds. Second, for international investors or the ones that hold liabilities in a currency different to their assets, this represents a risk when assets are required to be sold in other currency than investor's liabilities or expenditures (Jorion, 1991) and the exchange rate between the two fluctuates.

1.3.2 AGENCY AND TRANSACTION COSTS

The way that Martin and Rey (2000) see financial integration is a reduction or elimination of transaction costs between two or more markets. When financial markets are geographically limited (companies sell their securities only in local markets), investors face transaction costs in order to buy foreign securities. They constructed a macroeconomic model to study the impact of financial integration on the equilibrium demand and supply on asset markets. This model was based on the following assumptions:

- The number of financial assets is endogenous.
- Assets are imperfect substitutes.
- Cross border trading involves some transaction costs

[3] See Appendix A

Appendix A

- The investment technology is indivisible.

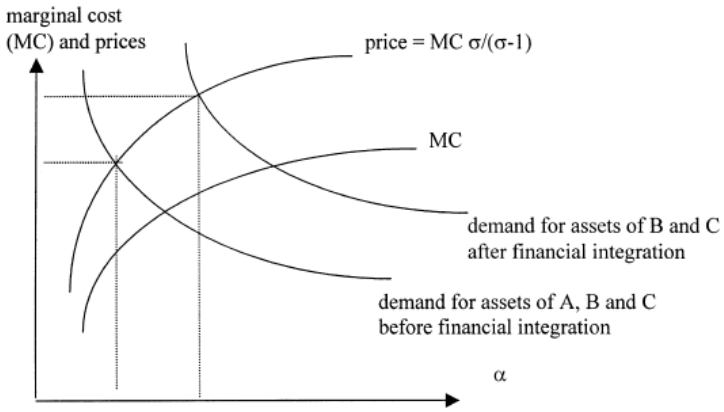
The idea that a creation of a new large integrated market will create attractiveness for both local and foreign investors, which will increased the amount of resources invested and trading frequency, is specially established by the second and third assumptions in this model. These are extended below:

Assets are imperfect substitutes: One of the purposes of financial integration is to increase investment possibilities for investors. Therefore, in order to achieve the higher benefit from integration, characteristics of assets in integrated markets should differ considerably. This means that investors are able to achieve a greater level of diversification, since assets are imperfect correlated. When the assets from isolated markets have similar characteristics, investors do not have any incentive to trade their current portfolio's assets in order to buy the new assets that will be available in the new integrated market, because there will not be any benefit at all from diversification.

Cross border trading involves some transaction costs: The existence of cross border transaction costs is essential to create the necessity of financial integration. The model interprets integration as the decrease or removal of transaction costs for the cross border trading between integrated countries. When these costs are cero, agents from different countries are able to buy or sell assets in other countries without incurring in a financial integration and any extra costs. Thus, a financial integration does not represent any change on the demand and supply of financial assets.

After a financial integration, demand for securities in the integrated area increases due to lower costs that foreign investors have to pay in order to buy these securities. Hence, prices in the integrated area also increase as a result of the demand/supply effect. This upsurge in price has a positive effect on the size of the market, as was stated by Shleifer (1986) in his study about demand curves in stock markets; there is a positive relationship between prices and the effective size of the market. Figure 1 shows how prices increase after financial integration.

Figure 1. Transaction Costs, Financial Integration and Assets' Prices



Source: Financial Integration and Asset Returns (Martin & Rey, 2000)

Finally, higher prices of the securities in the new integrated area not only motivate companies to issue riskier securities, but also allow smaller and riskier companies to access use capital market instead of banks. Because of investors in each country can diversify their risk by investing in other securities from different countries, they tolerate a higher risk in each local security as long as the overall risk in their portfolios is beneficed by diversification (Obstfeld, Risk-taking, global diversification and growth, 1995).

1.3.3 CORPORATE LOANS, BONDS AND EQUITY MARKETS. COMPLEMENTS OR SUBSTITUTES?

Brealy, Myers and Allen (2011) identify that there are three major sources of financing for the companies: internal funds (i.e. retained earnings), equity issues and borrowing (debt). The last two are external financing. Particularly, debt can be split in two large groups, bank loans and non-bank loans. Non-bank loans are also called securities by Brealy, Myers and Allen (2011) . It includes different kinds of items such floating rate bonds, zero coupon bonds, warrant, etc. For simplicity, other types of debt such as lease are excluded from this study. In resume, companies' sources of financing are classified by this study as below:

- ***Internal funds***. The proceedings cash flows from retained earnings plus depreciation.
- ***Equity issues.*** External financing proceeding from additional primary emission of stocks.

- ***Bank loans.*** Debt proceeding from contracts with financial institutions[4].
- ***Non-Bank loans.*** External financing proceeding from issuance of bonds and /or other debt securities.

Mallick and Yang (2011) analyze how a financial structure affects the performance of the company on the internal efficiency of firms and returns to their shareholders. The conclusions of their analysis are extremely important to understand the significance of the financial integrations as it is discussed in the next section.

DEBT MARKET AND EQUITY MARKET AND IMPACTS TO PERFORMANCE

Mallick and Yang (2011) consider, as part of their analysis, four different types of sources of finance: Bank Loans, Non-Bank Loans, Equities and Retained Earnings which are very similar to those identified by Brealy, Myers and Allen (2011). Using this classification, they analyze five different ratios:

- ***Bank Loan-to-sales:*** The research defines bank loans as all types of financing from any financial institution. The theory indicates that higher the level of such debt, lower will be the firm's performance. An environment with limited access to financial markets, as it occurs in bank-dominated financial systems, availability of financing may not lead to higher profitability or growth, because banks could discourage firms from investing in risky and profitable projects[5].
- ***Non-Bank Loan-to-sales:*** These liabilities primarily comprise the outstanding value of total bond issuance of a firm as a long-term source of financing. Theory indicates non-bank debt can have a positive or negative effect on the company. Campello (2006) finds that moderate debt taking is associated with sales gains, whereas high indebtedness leads to product market underperformance.
- ***Debt-to-equity (Leverage):*** This ratio compares the relationship of long-term debt to common equity It is expected via this ratio to capture the degree of financial riskiness of a

[4] It is know that there are financial institutions other than banks. For simplicity in this study, the loans of these non-bank financial institutions are considered as bank loans.

[5] See Weinstein and Yafeh (1998).

firm. The Pecking order theory indicates that firms use internal sources of financing first and then go for external sources of financing (Brealey, Myers, & Allen, 2011). This means that firms with higher profitability will prefer internal financing, leading to a negative relationship between leverage and profitability (Rajan & Zingales, 1995) and (Booth, Aivazian, Demirguc-Kunt, & Maksimovic, 2001).

- ***Retained Earnings-to-sales:*** Mallick and Yang (2011) propose that firms that have a higher proportion of internal funds will have better performance since internal performance is cheaper as it reduces the cost of equity capital and also the rate the market uses to discount expected earnings of such firms will be lower.
- ***Equity-to-sales:*** Studies do not provide any consensus about the direction and magnitude of the relationships between equity holdings and firm performance.

Mallick and Yang (2011) develop a model over the financial performance of the firm based the five ratios and whether the firm was above or below the mean of each of the ratios. In simplified version:

Financial Performance = f (relative ratio performance)

Mallick and Yang's (2011) analysis is applied to a large sample of firms (over 11,000) from a large number of countries (47), both develop and developing nations. The analysis was done during the period 1997-2007, and the results are:

- Firms with high bank loans-to sales ratio tend to have 1.11% lower profitability and 6.87% lower productivity. This suggests that a high debt (or bank loans) is likely to decrease the return to the shareholders and reduce internal efficiency of firms, leading to lower productivity.
- Regarding the effect of non-bank loans on firm performance the size of the effect ranges from -0.38% to -0.51%, which is less than half the effect of bank loans on firm profitability. From this set of results, it is conclude that non-bank loans do not negatively affect firm productivity and firm profitability which is contrary to bank loans. This is consistent with the theoretical finding in the literature that in equilibrium the riskier firms prefer bank loans,

while the safer ones tap the bond markets and the ones in between prefer to issue both equity and bonds[6].

- Higher the level of debt-to-equity ratio lowers the level of profitability (ranging from -1.12% to -1.24%). This suggests that high level of leverage is likely to reduce productive efficiency and returns to shareholders.
- Firms with high ratio of retained earnings to sales (treatment group) are more profitable (ranging from 3.29% to 3.42%) and more productive (ranging from 3.54% to 3.98%) than firms with a low values in this ratio.
- The ratio of equity to sales and firm performance does not provide a conclusion that is statistically significant. In general firms with high ratio of equity to sales are more profitable (2.22%) than firms with a low ratio. However the lack of statistically significance provides mixed evidence for the agency theory, especially over the principle that the agents of the shareholders (i.e., managers) might not add value given the divergent interests of owners and managers of a firm.

In conclusion, sources of finance affect the performance of firms and therefore the economy. The evidence mentioned indicates that when discussing external sources of finance, the best option for the firms is equity followed by non-bank loans and finally bank loans. The later having a negative effect on performance.

HOW CORPORATE LOANS AND BONDS SUBSTITUTE AND COMPLEMENT EACH OTHER

Financial institutions play a central role in most emerging economies around the world. Traditionally, they allow the allocation of household's savings, which are represented by the deposits in banks, to other households and companies that require financing through loans that they hold until maturity (Berlin, 2012). However, the necessity of having more sources of financing has motivated non-financial corporations to use financial markets instead on banks. Furthermore, financial corporations have also increased the use of bond markets in order to finance their necessities of liquidity, either by issuances of ordinary corporate bonds or by backed securities, which group different loans in a marketable security. As a result, bond markets have increasingly

[6] See Bolton and Fereixas (2000)

taken over the role played by traditional banks in these economies, as it occurred during the 80's in most developed economies.

During his speech to the Financial Markets Conference of the Federal Reserve Bank of Atlanta, Alan Greespan (1999) highlighted the importance of having multiple ways of intermediation such as debt securities and bank loans, in order to protect the economy during financial problems. This suggested that when either banks or bond markets suffered financial problems, the unaffected market will cover the supply declining from the market in crisis (Davis & Ioannidis, 2004). This was evidenced during the credit crunch, when bond markets were accessed by many corporations around the world due to banks' lack of liquidity.

As mentioned before, banks work as financial intermediaries, facilitating investment and lending between the individuals in the economy. In this way they provide savings and risk pooling to those individuals that can achieve diversification in their portfolios. Additionally, banks facilitate the commerce, working as payment mechanisms to transfer resources from an individual to other. On the other hand, financial markets can offer some of these tools in the economy, replicating what banks do or through other instruments, but because of they differ from banks in many aspects it is not possible for them to become a perfect substitute.

The way corporate bond markets and banks complement or substitute each other can be argued in different modes. Recently, in emerging markets there has been a turn of the traditional financing from financial institutions to financial markets and it has been observed how they can simultaneously play the same role (Berlin, 2012). This has been the result of the development that financial markets have had during the last decade, especially in these emerging economies. Hence, the approach to understand in which degree loans and bonds are substitutes or complements is based on the roles that financial institutions play in the economy and the way that financial markets replicate these functions.

SHORT-TERM LENDING

Banks have been the main suppliers of short-term financing, not only to non-financial corporations, but even also to other banks that will require financing for short periods. This financing includes overnight loans, treasury loans and some other credits with a maturity lower than one year. The fact is that this kind of loan is much easier to obtain through banks; usually corporations have a preapproved amount that is possible to borrow at any time from the bank, so the loan can be

executed in only few hours or days. Additionally, banks offer the possibility to renegotiate loan contracts[7].

By contrast, bond markets are more limited to supply short-term financing. Issuances require few weeks to expose the prospectus to possible investors in order to guarantee the demand of the securities during the public offer. For the shortest maturities, it is possible to access bond markets through commercial papers, which allow large corporations to meet debt obligations with a maturity lower than one year. However, this type of security is not baked by collateral, and therefore, only large corporations with excellent credit ratings are able to issue these papers at competitive prices (Mitchell, 1991).

LONG-TERM LENDING

With the exception of treasury loans and some especial loans, bank loans' contracts include a monthly or quarterly repayment schedule. Banks generally offer long-term financing to corporations with maturities from 3 to 10 years. However, maturities up to 20 years can be negotiated under special circumstances (Caprio & Demirgü, 1998). Long-term loans from banks are always required to be covered by collaterals, which are normally one or few company's assets. Additionally, contracts of these loans include restrictive covenants with the purpose of specifying what the borrower is able to do financially for the duration of the loan. These two mechanisms reduce the risk for the lender.

Traditionally, bond markets have been used by corporations for long-term financing. According to the Securities Industry and Financial Markets Association, corporations in United States issued, in average, bonds with a maturity from 7.2 to 13.7 years throughout the last decade. During this time, the borrower usually only has to make interest or coupon payments, and the principal fee is repaid at the maturity. Furthermore, financial markets innovation has allowed bond markets to offer endless possibilities of long-term financing for corporations. Nowadays it is possible to find even perpetuities in bond markets, which allow investors to secure coupon cash flows for an indeterminate period and allow the company to avoid executing principal payments during the bond's life, which reduces the bond's risk.

[7] See James (1987) for evidence on the uniqueness of bank loans

INVESTMENT MONITORING

As investors usually do, monitoring is a critical activity in the investment process. When the borrower is a public traded company, monitoring process is easier, since companies are required to disclosure financial information. In spite of this, the majority of the borrowers in Latin America are non-public traded companies. Therefore, this monitoring process becomes more difficult. Banks and bond markets use different methods for monitoring borrowers (Berlin, 2012). The first one tends to include covenants in the credit contracts in order to protect their investment. These covenants give the bank the right to terminate the loan in case the company does not make it up to certain predetermined financial ratios, returns or prices. Additionally, banks can use these covenants to place direct restrictions on a company's activity that avoids that the company could take an unnecessary risk, for example, restrictions on large new investments or on certain industries.

On the other hand, bond markets monitor by aggregating investors' information (Diamond, 1991). Prices in efficient markets incorporate the information of participants. Individuals such as mutual fund managers, hedge fund managers, and other investors base their economic decisions (such as buy, sell and invest) on the research carried out by either themselves or a specialist (e.g. rating agencies and industry analysts). As a result, securities overpriced are sold and those underpriced are bought by investors, generating a rise and a fall over securities' price according with the information perceived by investors.

INFORMATION GENERATION

Information about borrowers is represented by interest rates on the loans that they have obtained. As their financial health is better, the default risk decreases and therefore the lender's risk-premium also decreases. Thus, riskier companies have to pay higher interest rates for financing. The credit analysis performed by banks before providing a financing to corporations is crucial to determine the loans' interest rate. However, Parlour and Plantin (2008) argued that the possibility to securitize loans in order to sell them to investors, removing these loans from banks' balance sheet, has an impact on the efficiency of information production about borrowers. They found that when the benefits for banks from selling securitized loans become large, the equilibrium is determined by

bargaining between banks and investors, and therefore there is not information generation about borrowers[8].

Contrary, as it was mentioned before, markets generate information by aggregating investors' opinions and perceptions, which are based on researches performed by well qualified analysts. This is a more proficient process than those that banks do, since this is the result of multiple assessments with different interests. Even though markets produce more efficient information, they are limited to the information-disclaim that corporations have. Hence, this works for public listed companies much better than for those non-listed. In this aspect, banks have access to more information than markets.

RISK AND SAVINGS POOLING

Particularly for small investors and households, financial institutions act as a risk and savings pooling mechanism. This allows small investors to be exposed to more sources of risk, improving the diversification in their portfolios. On the other hand, households can deposit their savings in banks, being attracted by interest rates that they offer for this savings. Acting as financial intermediaries, banks lend savings from households to different corporations, which could not be possible without an intermediation.

Bond markets are not capable to offer these features directly to households and small investors. Due to transaction costs, direct investments in financial markets are limited to large amounts. Therefore, small investors can only access these markets through financial intermediaries' products such as mutual funds.

Finally, it is important to mention that bond markets also act as a supporting source for financial corporations. In this sense, bond markets not only complement services that financial corporations offer to companies, but they also have become essential for solvency and liquidity of financial corporations.

[8] See Palour and Pantin (2008) for an explanation of how the equilibrium is determined under the presence of large gains on loan securitization.

In conclusion, corporate loans and bonds work as substitutes in many ways, but they also complement each other in different situations. Demand and supply of funds in these markets are linked and the development in one market affects the other and vice versa. Thus, this study applies the microeconomic theory of substitute markets in order to fully understand the implications of corporate bond market development on the overall debt market equilibrium and interest rates. A model with two markets is briefly developed, using as example the relationship between the Bond Market and the Loan Market.

SUBSTITUTES MARKETS

The demand in the Bond Market Debt (DB) represents the entities that need financing, in this case, companies. The Supply (SB) in the bond market represents the parties that will offer the financing, in this case, investors.

The supply of financing funds in the bond market can be defined as:

$$SB = f(+iB, -\delta B) \tag{5}$$

This means the supply of financing has a direct relationship towards the real interest iB and an inverse relationship towards riskδB. In other words higher interest rates and lower risk increases the supply of financing.

The demand of financing funds in the bond market can be defined as:

$$DB = f(-iB, +RI) \tag{6}$$

This means that the demand of financing has an inverse relation towards the interest rate which represents the cost of financing; it has to pay and a direct relationship towards the return of the investment, which triggers the need of financing. In other words higher returns in new investment opportunities for companies and lower interest rates in financing increase the demand of financing.

Parallel to the Bond Market Debt (DB) is the Loan Market. The Supply (SL) in the Loan Market represents the parties that will provide financing through loan contracts, which are mainly used by banks. The Demand in the Loan Market (DL) is represented by the same entities as in the Bond Debt Market, but also it includes families, which would normally not have access to the bond market.

The supply of the Loan Debt Market can be defined as:

$$SL = f(+iL, -\delta L) \tag{7}$$

This means the supply of financing has a direct relationship towards the real interest iL and an inverse relationship towards the risk of the loan δL.

The demand of the Loan Debt Market can be defined as:

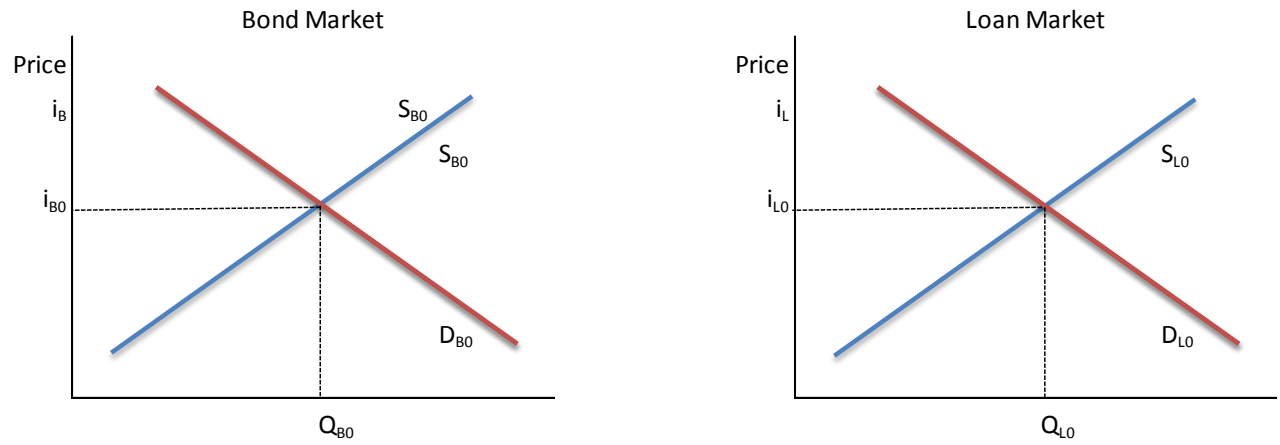
$$DL = f(-iL, +RL) \tag{8}$$

This means that the demand of financing has an inverse relation towards the interest rate it has to pay and a direct relationship towards the return of the investment which trigger the need of financing.

The Figure 2, illustrates both Bond Market and Loan Markets. At the initial moment, T0, both of them are at equilibrium with interest rates $iB0$ and $iL0$ respectively, where the interest rate represents the "price" or cost of financing. For those levels of interest rates the equilibrium quantity of financing offered and required are determined as $QB0$ and $QL0$. Since it is assumed that these two markets represent the total debt of corporations, then:

$$QB0 + QL0 = 100\%\ total\ debt \tag{9}$$

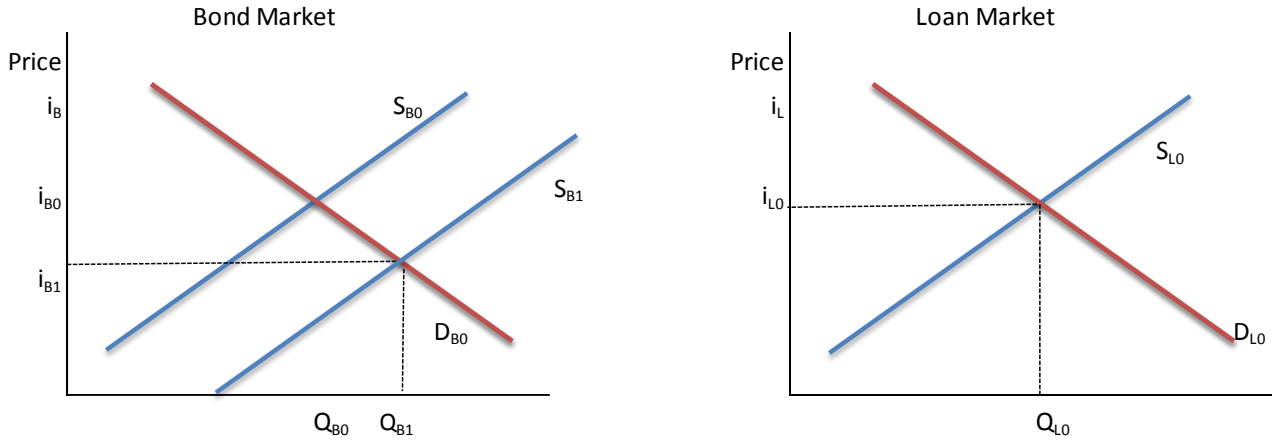
Figure 2. Bond market and loan market at equilibrium



As a consequence of the Financial Market Integration and as mentioned before, the adversity towards risk of financial instruments, δB, is reduced and investors demand a lower risk premium.

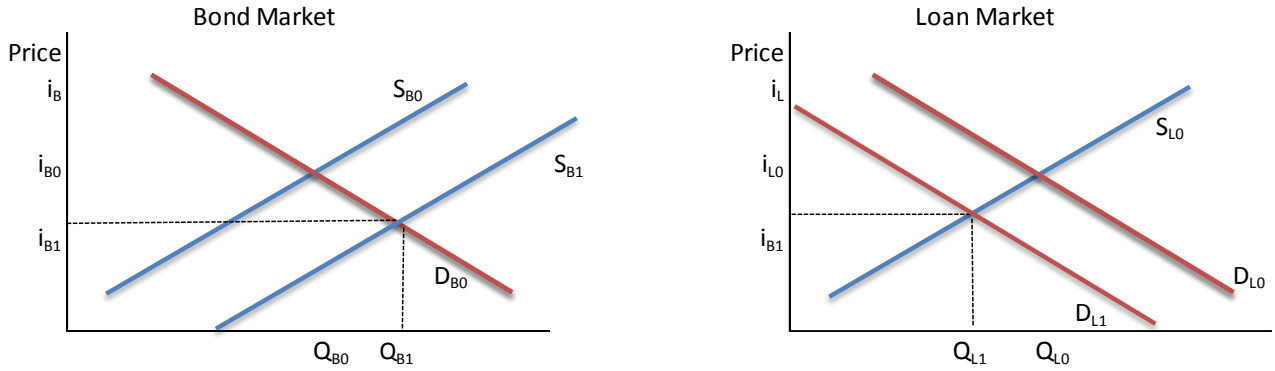
Since the supply of financing in the bond market is determined by $SB = f(+iB - \delta B)$, a reduction on $\delta B \downarrow$ represents an increase on $SB\uparrow$. This is illustrated by Figure 3.

Figure 3. Increase of financing on bond market



Since Bond Market and Loan Market are substitutes, the new equilibrium in the Bond Market as a result of lower interest rate equilibrium comes as at the expense of a reduction on the equilibrium quantity in the loan market, this represented by Figure 4.

Figure 4. Reduction on the equilibrium quantity in loan market



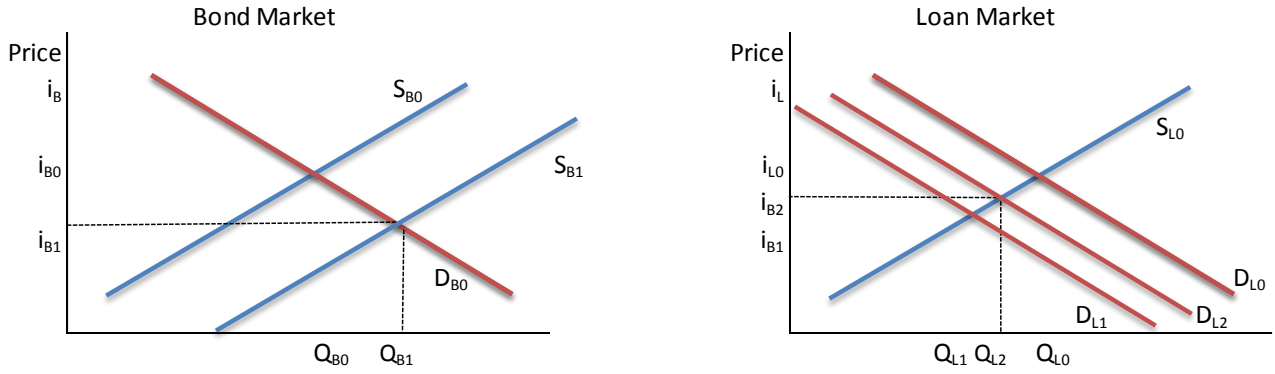
Up to this point the total amount of companies' debt has not changed and the financing remain the same as the initial moment in time:

$$QB0 + QL0 = QB1 + QL1 = 100\%\ of\ total\ debt \tag{10}$$

This means that so far there has been a redistribution of the quantity of financing between markets, loans and bonds.

However, since now the interest rate in the loan market is lower, this incentive other participants for which before the interest rate was prohibitive to request credit, expanding the demand for financing in the loan market to $DL2$.

Figure 5. Increase on the demand for financing in loan market

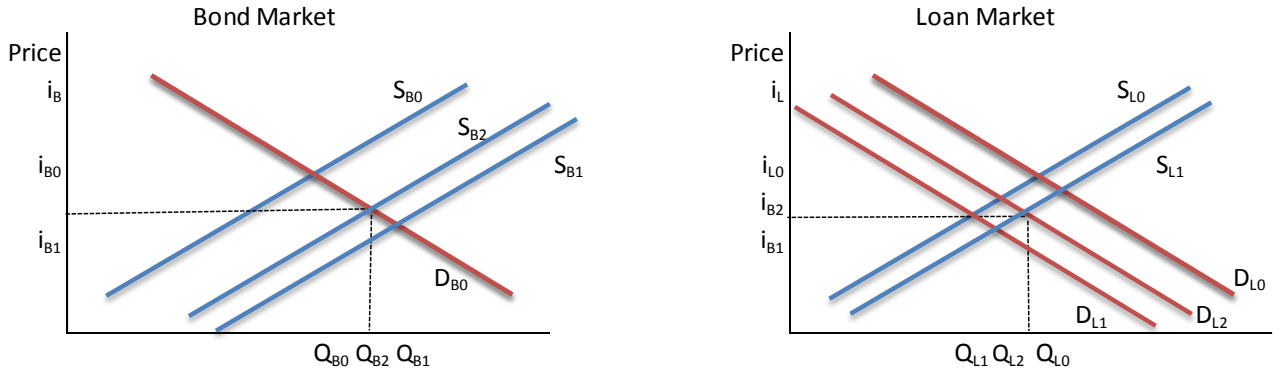


This new demand for credit could raise slightly the interest credit rate in the Loan Market, reducing the supply of financing in the Bond Market as it is shown in Figure 5. However it is important to note that the overall financial market increases, and therefore the amount of debt outstanding in the market is higher than the debt at initial time.

$$QB2 + QL2 > QB0 + QL0 \tag{11}$$

Finally, it is worth noting that the banks, which represent the main suppliers in the loan markets, can finance their operations at a lower cost via bond issuances. This new situation makes the supply on the loan market to increase. This is illustrated by Figure 6.

Figure 6. Increase of supply on loan market



1.3.4 IS LM MODEL

As it was described in the previous sections of this chapter, the overall effects from different theories indicate that a financial integration will lead a reduction on the cost of capital and the equilibrium interest rates. Therefore, the effects of the financial market integration will also impact the real economy on the long term. In order to demonstrate this effect, the present study uses the macroeconomic model IS-LM.

The IS-LM model is the abbreviation for Investment Saving – Liquidity Preference Money Supply. The model shows the general equilibrium between two markets, the first is the goods and service markets, the real economy; and the second is the money market and financial sector (Begg, Stanley, & Rudiger, 2003).

The IS curve is the Investment-Saving curve. It represents the equilibrium points of the real economy where the total investment equals the total savings. The endogenous variable is the level of income and the exogenous variable is interest rate (Begg, Stanley, & Rudiger, 2003).

The LM curve is the liquidity preference and money supply curve. It represents equilibrium points between the money market and the interest rates. The endogenous variable is the level of income and the exogenous variable is interest rate.

Since LM represents the preference to hold cash instead of financial instruments. As the interest rate rises, the opportunity cost of holding cash's increases.

EXPECTED CHANGES

There are two main outcomes that can be observed, as a result of a financial integration.

First, the LM curve is expected to move to the right. As the interest rates falls based on the effects of larger supply of financial sources, the effect is similar as a looser monetary policy (Begg, Stanley, & Rudiger, 2003). This means that investors are less interested in holding cash, but rather to invest it or use it. Therefore, the curve LM_0 moves to the new level LM_1.

Second, as a result of a lower interest rate, the IS curve is also affected. The lower interest rates reduces the preference for saving in the economy, increasing either consumption or/and or investment. Both of them are part of the aggregate demand, as Equation 14 shows.

$$GDP = Investments + Consumption + Public\ expenditure + exports - imports \quad (13)$$

This increases the IS curve from IS_0 to IS_1. This means that, all other factors remaining constant, the output and therefore the output per capita increases. Output is important as it is a main component and indicator of the economic welfare of a country[9].

[9] See Appendix B for a graphical explanation of this effect.

CHAPTER II: THE PACIFIC ALLIANCE

In order to understand the MILA initiative, it is necessary to review the Pacific Alliance. This the overall integration agreement between Chile, Colombia, Mexico and Peru and, MILA is the feature that seeks to integrate the financial markets. One important aspect of the Pacific Alliance is that Mexico has not been integrated yet into MILA; therefore, it is important to review both separately.

2.1 ANTECEDENTS TO THE PACIFIC ALLIANCE

It is important to place the Pacific Alliance in the context of the history of Latin American integrations that motivated the creation of this economic block. The efforts on integrations in Latin America date back from its independence in early nineteen century, driven by the leaders of the independence of the South American states. Following it is mentioned from a chronological perspective the most relevant integrations which were done during the late twenty century. These integrations have had a direct effect on the Pacific Alliance and or where its current members participate

2.1.1 LATIN AMERICAN INTEGRATIONS AND ASSOCIATIONS

LATIN AMERICAN FREE TRADE ASSOCIATION (LAFTA)

The first attempt for regional integration after the Second World War happened in the 1960 with the creation of the LAFTA. It tried to draw South American countries and Mexico in a large and consolidated block. The main purpose was the creation of a free trade area within 2 years. The project was discussions stalled. From LAFTA two projects emerged, the Andean Pact and the Latin America Integration Association (LAIA). The Andean Pact promoted closer cooperation and tighter regional planning; and the Latin American Integration Association (LAIA) a loosening of the framework to enable more global than regional trade (Tussie, 2009).

THE LATIN AMERICAN INTEGRATION ASSOCIATION (LAIA)

It was created in august 1980, replacing the LAFTA. It was formed by Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela. The long term objective was to create a Latin American common market through a gradual reduction of trading tariffs, creating preferential trade regional agreements. By 2007 there were 10 preferential trade agreements with 45 bilateral relations and 90 tariff chronograms. The LAIA had also as objective to

provide support to less developed member countries. The balances of the process are ambiguous, since the LAILA is just an umbrella and the expectations were very low since the start. Therefore, the ambiguous results did not raise any disappointment, passion or dispassion. (Veiga & Rios, 2007)

THE ANDEAN PACT AND THE ANDEAN COMMUNITY OF NATIONS (ANCOM)

The Andean Pact was established in 1969 under the LAILA umbrella and it was the result of the failure of LAFTA. The Andean Pact had the purpose of enhancing the participation of its participants, while aiming at the formation of a Latin America common Market. Five countries signed this agreement at its starting date Bolivia, Colombia, Chile, Ecuador, and Peru. Venezuela joined in 1973 but Chile withdrew in 1976 (Tussie, 2009).

There were two major features in this agreement; first it created a supranational decision making structure. The second was on an economic level. Initially, the Andean Pact created high external protections while promoting intra-regional trade liberalization and regional industrial planning (Tussie, 2009). This tendency would not change until the nineties as Colombia and Peru open their economies with Free Trade Agreements with the United Stated and European Union.

The objectives are to promote harmonic development of the member countries through economic integration and social cooperation in order to gradually create a Latin American common market reducing external vulnerability (Baumann, 2008).

The Andean Community, the new name of the Andean Pact after its re-launch, had started negotiating trade agreements with the European Union but only Colombia and Peru conclude them. Venezuela left the group in 2006 due to disagreements with Colombia and Peru over their negotiations on free trade agreements with the United States. (Baumann, 2008).

THE SOUTHERN COMMON MARKET (MERCOSUR)

The Mercosur was created in 1991. It was composed by Argentina, Brazil, Paraguay and Uruguay. After the 1995 and 1999 global financial crisis, Mercosur became a symbol of resistance to neoliberalism (Tussie, 2009). It is seen as an association of developing countries that can stand in the way of the United States promoted free trade area. Internal political forces of the Mercosur have tried to push for a “political Mercosur”. According to Tussie (2009), the idea is that a progressive state led initiative must be recaptured from conservative hands, prioritizing the social and

representative dimensions of regional integrations. This is opposed to be just a trade and investment union. This idea has been reinforce with the incorporation of Venezuela. The Mercosur objectives are:

- To create a common, fee movement, market of goods, services and productive factors.
- To adopt a common external policy
- To Coordinate sector and macroeconomic policies

The Mercosur is an inter-governmental exercise without a supra-national structure such as the European Union. It has a common external tariff (CET), which cover 85% of the intra-regional trade (Veiga & Rios, 2007). However, a number of high non-tariff barriers remain in regional trade (Baumann, 2008).

There are two main differences between the Mercosur and the Andean Community of nations. The first is that in the later, there are no exceptions among the products affected by preferences, and the second is that the Andean Community has supranational organization while the Mercosur relies in intergovernmental decisions. The Andean Community and the Mercosur have completed bilateral trade concessions (Baumann, 2008).

THE UNION OF SOUTH AMERICAN NATIONS (UNASUR)

After the Mercosur and the Andean Community signed a free trade agreement in 2004 and both of them together with Chile, Guyana and Suriname established a new pact called South American Community of Nations. After 2007, it changed names and it was called Union of South American Nations (UNASUR) ever since. Its members are Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Suriname, Paraguay, Peru, Uruguay and Venezuela. The goal is to gradually form a free trade area in South America, as well as to provide economic complementarities among countries in the region (Baumann, 2008).

UNASUR goals wording are cautiously avoiding any direct mention of economic integration, stating: "*Economic and commercial cooperation to achieve progress and consolidation of an innovative, dynamic, transparent, equitable and balanced process focused on an effective access, promoting economic growth and development to overcome asymmetries by means of the complementarities of the economies of the countries of South America, as well as the promotion of*

the well-being of all sectors of the population and the reduction of poverty" ; later the text adds "*Industrial and productive integration*" (Sanahuja, 2012).

It is not correct to consider UNASUR on the framework of integration even though it is consider an agreement of regional integration. It does not engage itself on common topics related to market integration such as free trade zones and customs unions, or common policies associated with economic integration. It is rather an organization of political cooperation. Even more, CAN and Mercosur are not legally or politically part of UNASUR nor associated with it. This indicates a lack of consensus regarding the organization's role in forming a South American economic zone (Sanahuja, 2012).

THE G-3

It was formed in 1994 by Colombia, Mexico and Venezuela with the objective of eliminating trade barriers for goods and services, promoting compositions and investment. However, the internal trade was quite limited with exception to the trade between Venezuela and Colombia due to already existing conditions. In 2006 Venezuela abandoned the group as a result of the divergent economic policies between Colombia (pro-market) and Venezuela (Socialist) and therefore the G3 was dismantled.

THE NORTH AMERICA FREE TRADE AREA (NAFTA)

It started operations in January 1994 with the participation of Canada, Mexico and the United States of America and has been in operation until date. NAFTA is very different from other initiatives as it aims exclusively at creating a free trade area, with no further objectives related to development, even though the negotiated agenda goes beyond purely trade issues such as government procurement and property rights (Baumann, 2008).

THE ASSOCIATION OF CARIBBEAN STATES (ACS)

It was formed in July 2004 by Antigua, Barbuda, Bahamas, Belize, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Salvador, Granada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, St Lucia, St Kitts & Nevis, St Vincent & Grenadines, Suriname, Trinidad & Tobago and Venezuela.

It aims at promoting consultation, cooperation and concerted action with regard to cultural, economic, scientific and technological development, as well as trade liberalization and investment regulation among all the countries of the Caribbean. Its focus is concentrated in four major areas: trade, transport, tourism and natural disasters. It is seen with skepticism since: i) there are marked differences among member countries not only in trade policies, but also in political and cultural terms; ii) it lacks clear definition as to its long-term objectives, its mechanisms to coordinate policies and its potential relations with third countries; iii) Cuba´s membership raises questions as to how effective can be its future negotiations with the Unite States (Baumann, 2008).

THE CARIBBEAN COMMUNITY (CARICOM)

The CARICOM was formed in July 1973 by Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Granada, Guyana, Haiti, Jamaica, Montserrat, St Lucia, St Kitts & Nevis, St Vincent & Grenadines, Suriname and Trinidad & Tobago. The objective is the integration by a common market, coordination of external policy and functional cooperation of the Caribbean nations (Baumann, 2008).

THE CENTRAL AMERICAN COMMON MARKET

This market was formed in December 1960 by El Salvador, Guatemala, Honduras and Nicaragua. Costa Rica joined the group later in 1963. Their objective is to create a common market among member countries, achieving a free trade zone in 2001 with exception of some agricultural products. Given the importance of trade with the United States (and the risk of trade diversion) one major issue raised by these agreements is to what extent the relations on a new basis with the Unite States will affect regional integration efforts (Baumann, 2008).

THE FREE TRADE AREA OF THE AMERICAS (FTAA)

Discussions over the FTAA were spearheaded by the United States in 2001 and 2002, during the first Bush administration. Initially and for the first time the proposal had more supporters than opponents in Latin America, whose leaders had stop looking at Free Trade Areas with the United Stated as an invasion over their hegemony but rather as an extension of the NAFTA.

The initiative stalled after the events of September 11 and other problem areas began to arise such as the decisions of the Unite States to impose steel tariffs, the passage of the 2002 Farm Bill, and the proposal of the United States to set intellectual property rights that would exceed the

requirements set by the World Trade Organization inclusive of requiring a limit of licenses for local production of generic version of drugs with or without the patents holders approval. Other problems that lead to a push of this regional process included the United States refusal to discuss issues such as agricultural subsidies and demand to unlimited access to the Latin American markets for services (Agrisani, 2005).

BOLIVARIAN ALLIANCE FOR THE AMERICAS (ALBA)

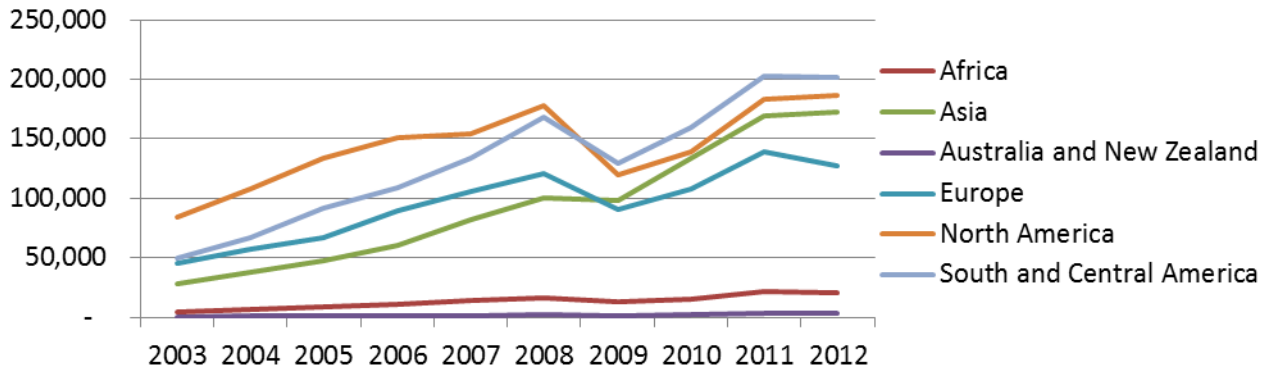
It is an initiative lead by Venezuela and Cuba as alternative for a free trade area of the Americas (FTAA). In 2004 Bolivia joined, and in 2006 Nicaragua joined too. The participants of the ALBA are countries with governments form the left of the political spectrum. Bolivia proposed a "people trades agreements" (Tratados de Comercio de los Pueblos in Spanish), this treaty was defined as "instruments of exchange between countries, with solidarity and complementary to the benefit of the people, as opposed to the Free Trade Agreements that strive to increase the power and domination of multinational companies". In addition to Bolivia, Cuba and Venezuela, the group has expanded and it also includes Antigua and Barbuda, Dominica, Ecuador, Nicaragua, and St Vincent and the Grenadines (SELA Latin America Economic System, 2010).

2.1.2 HIGHLIGHTS OF EXISTING INTEGRATIONS

There are a few conclusions that can be highlighted from the existing projects. First, the number of initiatives is large, and they seem to be uncoordinated and it is not clear what the goal of the integration is: Latin America, South America or all Americas (Malamund, 2012).

Figure 7. Destination of Exports from South and Central America

(Millions of USD)



Source: World Trade Organization.

Second, as it is illustrated in the Figure 7, the exports from South and Central American countries have grown in the last ten years four times. The growth of intra South and Central America trade has grown faster than with other regions. However, comparing the intra-regional trade, it is observed that the exports of most of the integration looks for a free trade zone, but the intra agreement commerce is low comparison to other regions. The intra trade of South and Central America in 2012 represented 28% of the total exports, behind the intra exports of Asia 56%, Europe 74%, North America 50% and being only higher than Africa 14% and Australia New Zealand 5%[10]. This is an indication that the economic and regional trade integration is still an ongoing process.

Third, most of the integrations attempts have not been successful due to a combination of low incentives (low trade among participants) and due to low starts and little progress across years. In addition, the high number of integration attempts are a result of lack of definition over what is the objective of the integration or how is it achieved, leading to further creation of new institutions without clarifying what will be done with the old ones (Malamund, 2012).

2.2. THE PACIFIC ALLIANCE

The Pacific Alliance started in 2010 as an initiative conformed by Colombia, Chile and Peru during 2010; it was shortly followed by Mexico. Panama is currently an associated state. In 28th of April 2011, the presidents of the four nations signed the Declaration of Lima, where they commit to move towards free trade of: goods, services, capitals and people (Peruvian Ministry of International Trade and Tourism).

As stated by the Colombian Minister of Trade, Sergio Diaz Granados, The Pacific Alliance does not replace, but rather complements and promotes the initiatives already in place. The objective of the Pacific Alliance is to diversify the economic relations of the region as whole, deepen trade between member countries as a method to accelerate its integration with other countries, in particular with the Asia Pacific region. (Colombian Ministry of Trade, Industry, and Tourism)

The four economies together are the largest trade block in the region. The trade of the Pacific Alliance is 35% larger than the one in the Mercosur. According to the World Trade Organization (WTO), the Pacific Alliance exported around 445,000 Million USD in 2010 which is 60% more

[10] See Appendix C

than the Mercosur exports (Argentina, Brazil, Paraguay and Uruguay) (Agencia Peruana de Noticia, 2012).

2.2.1 DIMENSIONS OF THE ALLIANCE

The Pacific Alliance defines a series of goals that support the movability of different resources between the members, which are crucial for the economic development in this region. In this session, the advances on the goals regarding goods, services, people and capital are reviewed.

TRADE OF GOODS AND SERVICES

By the end June 2013, the countries of the Pacific Alliance had already agreed to remove trade tariffs up to 92% of the items. While the remaining are in progress for the immediate months (EFE, 2013). Peru's finance minister, Luis Miguel Castilla, said that member countries were also looking for ways to harmonize trade mechanisms, specifically "single window" policies, which bring under one roof all steps related to moving goods. One possible model is Chile's recently implemented Integrated System for Foreign Trade, which will be used for all exports by the end of the year and the government hopes, it will cover all imports by March 2014. Mr. Castilla said that the Alliance's four member-countries wanted to "integrate our export systems to make trade more fluid." (The Economist, 2013).

MOVEMENT OF PEOPLE

The main goals related to movement people include the facilitation of migratory movement and the free flow of business people, consular cooperation and work-study program for students, as well as cooperation and information exchange on migration flows. There are achievements already reached regarding this topic, they are mentioned below (The Pacific Alliance, 2013):

- Elimination of the visa requirement for Colombian and Peruvian nationals travelling to Mexico to undertake remunerated activities for up to 180 days.
- Establishment of the platform for academic and student mobility. In 2013, up to 100 scholarships are planned to be given per country for undergraduate and graduate students and professors. The first lot has already been awarded and the beneficiaries are currently involved in academic activities in the universities of the Pacific Alliance Members linked to the platform. Applications for 2013 are currently being received.

- Signature of the Tourism Cooperation Agreement, aimed at strengthening and developing cooperation based on the design of initiatives that seek to increase the movement of tourists between the participants.

In addition during 2012 the main immigrants in Chile came from two other Pacific Alliance countries being 1st Peru and 2nd Colombia. It was followed by other countries in the region such as Bolivia 3rd, Argentina 4th (Diaz & Rodriguez, 2013). In Mexico, in 2010, Colombia, Peru and Chile represents the 4th, 14th and 15th source of foreign born residents respectively. The top three countries are United States 1st, Guatemala 2nd and Spain 3rd (Instituto Nacional de Estadísticas y Geografía, 2011). In Colombia during 2007 and 2011, Venezuela was the largest source of foreign residents, followed by United States 2nd and Spain 3rd, Peru was number 6th and Chile is the 8th (El Tiempo, 2013). In Peru, during the 1994 and 2010, the foreign residents came from United States 1st, China 2nd, Argentina 3rd. Chile is the 6th, Colombia the 7th and Mexico is the 11th (Instituto Nacional de Estadística e Informática , 2012).

Overall it is observed a significant flow of foreigners from and across the Pacific Alliance in particular between Peru, Colombia and Chile; although it is not significant with Mexico, which can be explained by the distance as well as the previous existing visa requirements which have been just eliminated.

FREE MOVEMENT OF CAPITALS

The liberalization of the capital market is achieved through MILA. It is the agreement signed between the Stock Exchange of Colombia (Bolsa de Valores de Colombia), The Stock Exchange of Santiago (Bolsa de Comercio de Santiago, Chile) and the Stock Exchange of Lima (Bolsa de Valores De Lima, Peru). This integrated market and its performance are detailed in the following chapters.

Mexico is expected to enter, and it is in the agenda of the Pacific Alliance to accelerate the integration. MILA is already the second-largest bourse in the region after Brazil, and will become the largest when Mexico joins (The Economist, 2013).

2.2.2 COMPARISON WITH OTHER LATIN AMERICA INTEGRATIONS.

The Pacific Alliance puts focus on the economy and trade, to a large contrast to the ALBA alliance. It tries to link itself to the globalized word, especially Asia – Pacific. An example of this is that all four countries free trade agreements with the United States; Chile and Mexico have agreements with the European Union while Peru and Colombia Multilateral agreements. In addition Mexico, Chile and Peru are part of the APEC (Asia Pacific Economic Forum) which expands the possibilities of globalization (Malamund, 2012).

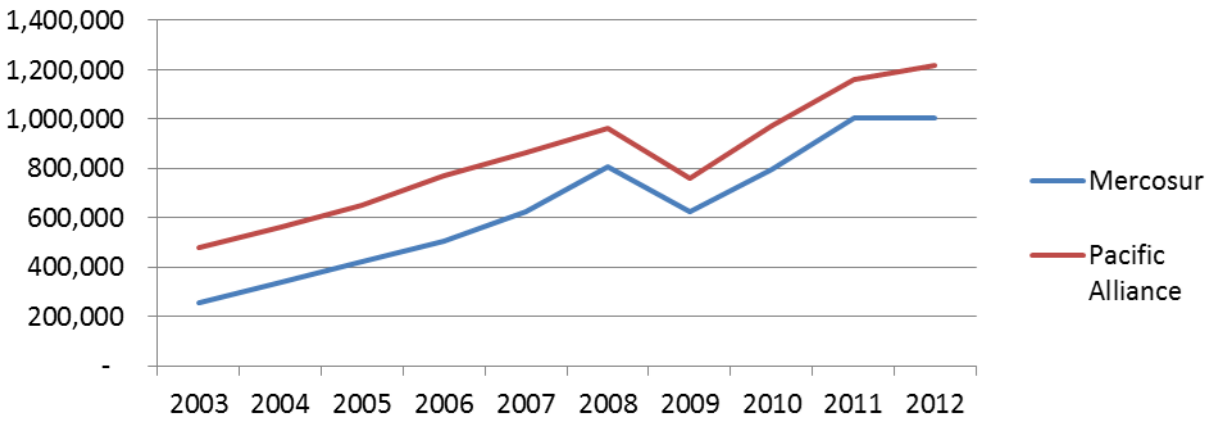
The Pacific Alliance is also a counter weight in the region to the Mercosur trading block. For Mexico, the second largest economy in Latin America, it is also a counter weight to the influence and leadership of Brazil.

As it was mentioned before, there are many integrations process ongoing in Latin America and some of them have similarities with the Pacific Alliance. However this study uses Mercosur as a benchmark because of the two following reasons:

- Mercosur contains Brazil, which is the largest economy in the region and therefore it represents the main competition as an economic block
- Mercosur policies are different than the Pacific Alliance. While the Pacific Alliance integrates to be able to compete and integrate with rest of the world, Mercosur integrates to be able to protect and raise barriers against the rest of the world witch will measure the performance of the different integration strategies.
- During 2012, out of the forty economies and territories of Latin America, the five countries of Mercosur represented 55% of the GDP of Latin America, while the four economies of the Pacific Alliance represented 35%. All the remaining economies represented only 10% (World Bank, 2013).

When comparing the total external trade (exports and imports) of the Pacific Alliance (Chile, Colombia, Peru, Mexico) and the Mercosur (Brazil, Argentina, Uruguay, Paraguay and Venezuela), the international trade of the Pacific Alliance is larger as illustrated in Figure 8. This is even more important considering the relation to the GDP of these economic blocks. The Pacific Alliance has a total GDP of 2 trillion USD; the Mercosur is 66% larger with approximately 3.3 trillion USD. (International Monetary Fund, 2013).

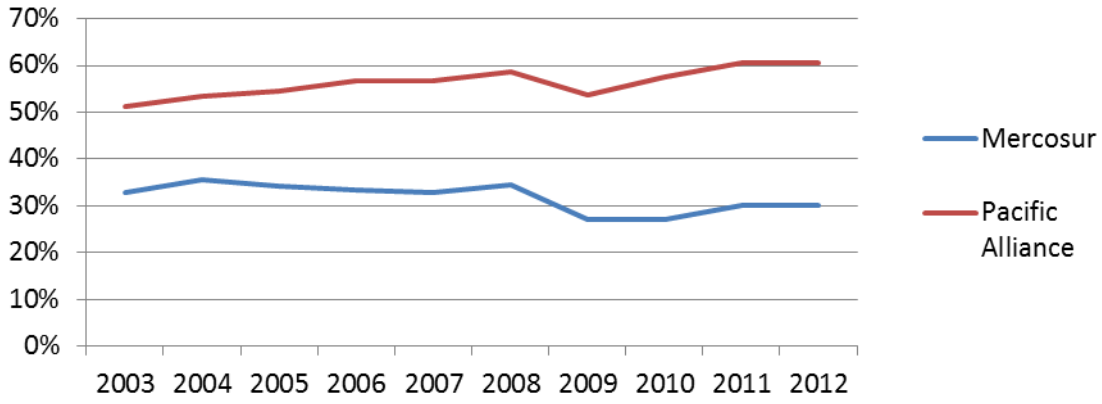
Figure 8. Total International Trade of Goods and Services: Mercosur and Pacific Alliance (Millions of USD)



Source: World Trade Organization.

Even more, a comparison between the Pacific Alliance and the Mercosur on the share of total trade as a percentage of the GDP, measured as the relationship between exports and imports over the GDP, shows that Pacific Alliance is consistently higher than Mercosur, and in the last years almost double. This is a much clearer indication of the degree of openness of MILA economies

Figure 9. Total International Trade as part of the GDP: Mercosur and Pacific Alliance

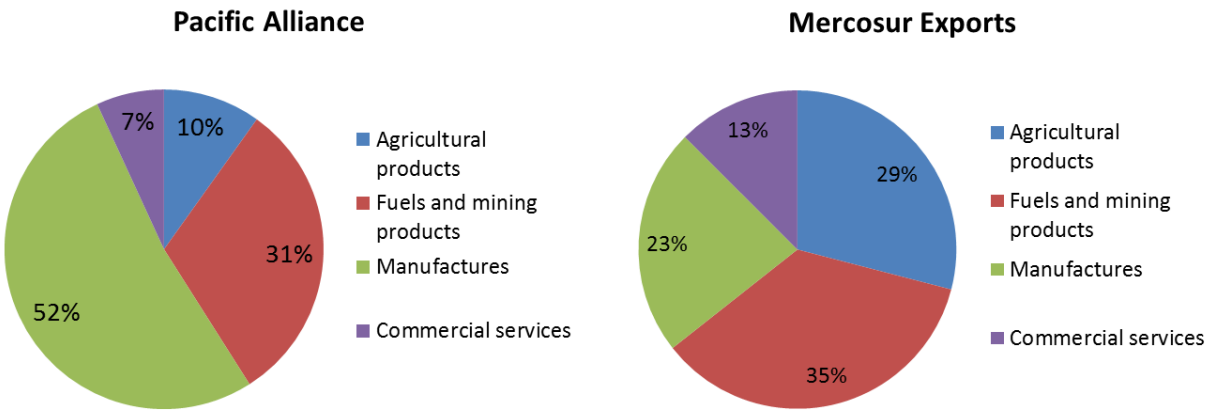


Source: IMF and World Trade Organization.

The composition of the goods and services exported from Mercosur and the Pacific Alliance indicates also difference in the main industry composition of the two economic blocks. The Pacific Alliance main component is manufactures, while the main exports of Mercosur are fuels. It is possible to conclude from this that the Mercosur exports are more of a primary/extractive nature, while the Pacific Alliance economies are providing a higher value added, for example the export of

commercial services of Mercosur has almost twice as much relative weight in Mercosur than in the Pacific Alliance.

Figure 10. Export Compositions Pacific Alliance vs. Mercosur 2012



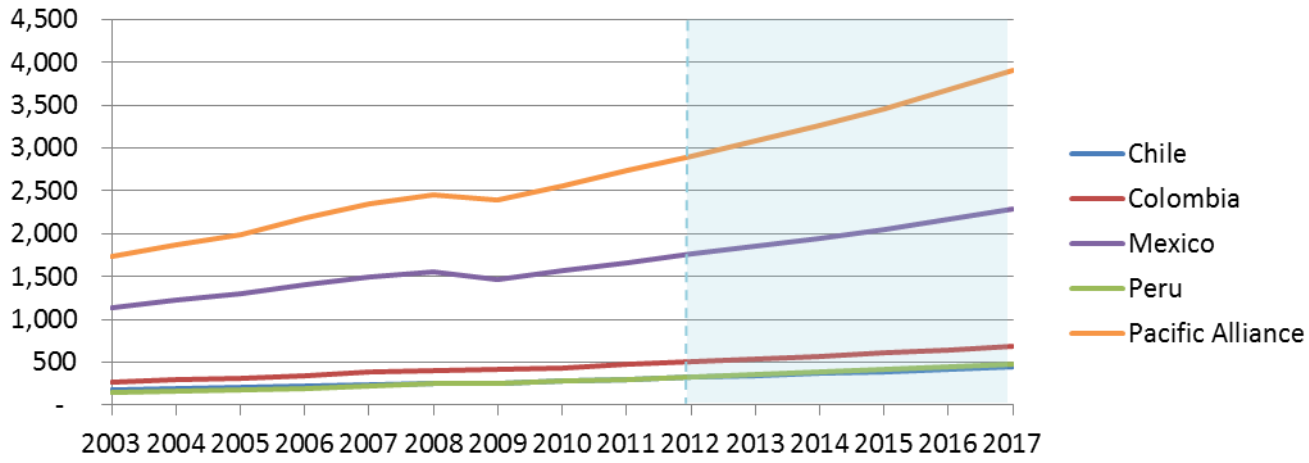
Source: IMF and World Trade Organization.

2.2.3 ECONOMIES PERFORMANCE AND FORECAST

In this section several economic variables of the Pacific Alliance countries are analyzed. First, by reviewing selected macro-economic variables of each of these countries and second, by comparing them as a group against larger developing economies, which in this case are the BRIC countries.

This group is constituted by Brazil, Russia, India and China. During the period between 2003 and 2017, the Pacific Alliance economies are still expected to show an overall growth. The analysis of the composition of the Pacific Alliance GDP shows that the distribution of weight between the four countries is very different, with Peru and Chile having an economy of almost the same size and Colombia, approximately 30 to 40 percent larger than either of the two other countries. The size is of the Mexican economy is by 2012 1.5 times larger than the other 3 countries put together.

Figure 11. Historical and forecasted GDP in the Pacific Alliance



Source IMF

During the 2013 to 2017 period, the Pacific Alliance economies growth of GDP at PPP will be larger than the worlds average of 31%; headed by Peru 48%, follow by Chile 39% and Colombia 37%. Mexico however is expected to grow only 30% in the same timeframe. The combined growth during 2010 to 2017 for the Pacific Alliance will be of 34%[11]. Regarding GDP per capita, it is expected to have a similar trend of overall growth. Peru and Colombia show a very similar GDP per capita, starting from 10,719 USD and 10,792 USD respectively in 2012 and estimating to end with 14,709 and 13,923 USD respectively in 2017. This represents a growth of 37% for Peru and of 29% for Colombia during the next five years. During the same timeframe, Chile's GDP per capita is expected to increase from 18,419 in 2012 to 24,485 in 2017, which represents a growth of 33%. Although Peru and Colombia have a very similar GDP per capita, Chile has roughly 70% higher GDP per capita. Mexico's GDP per capita was of 15,311 in 2010 and it is expected to grow to 18,941 USD by 2017 with a growth of 24%.

Based on the forecast, it is identified that there is a tendency for convergence on GDP per capita in the Pacific Alliance countries. One of the economies with lower GDP per capita, Peru is growing

[11] See Appendix D for more details about the macroeconomic forecasted figures estimated by IMF.

almost twice as faster than the two richer countries, Chile and Mexico. Colombia, the other country with lower GDP per capital is still growing 6% faster than Mexico during the 2010-2017 periods. [12].

MACROECONOMIC COMPARISON AGAINST THE BRIC

The overall Pacific Alliance's macroeconomic indicators are compared against the leading developing economies, the BRIC[13], in this section.

As it was explained in the previous point, the GDP at PPP of the Pacific Alliance is expected to grow 31% during the 2013 to 2017. During 2012 the GDP of the Pacific Alliance was around 2,935 Million USD. The GDP at PPP of the Pacific Alliance is higher than Brazil's 2,320 Million USD and Russia 2,486 MM USD on 2012 and the Pacific Alliance countries will still grow faster than Brazil and Russia who are expect to grow 27% in the next five years.

The Pacific Alliance GDP at PPP is lower than China's 12,261 MM USD and India's 4,715 MM USD. Both Asian countries will grow faster than the Pacific Alliance in the next five years (2013 to 2017). China's GDP at PPP will grow 55% and India's will grow at 44%

The GDP per capita at PPP of the Pacific Alliance economy is expected to grow during 2012 to 2017 a 24% as a whole and 30% if Mexico is excluded. The growth of GDP per capita at PPP of the Pacific Alliance countries is lower than China's 51% and India's 35%. Nevertheless the Pacific Alliance growth is higher than the growth during the same timeframe of the 29% of Russia and Brazil's 23%.

When comparing the Human Development Index, only Chile ranks in the Very High Human Development index reaching the 40th position. In the range of High Human Development the following countries appear: Russia 55th, Mexico 61st, Peru 77th, Brazil 85th and Colombia 91st. The Medium Human Development range includes China 101st, India 136th (UNDP, 2013).

Finally, the public finance of Peru, Chile and Colombia show that the level of government debt as a percentage of the GDP is decreasing. The government debt as a percentage of the GDP of all the

[12] See Appendix D for more details about the macroeconomic forecasted figures estimated by IMF.

[13] See Appendix D for more details about the macroeconomic forecasted figures estimated by IMF.

Pacific Alliance economies are lower than in India, Brazil, and all of Latin America. Only Russia and China have a lower government debt to GDP than Colombia and are between 10 and 20% in a similar range than Peru and Chile.

MACROECONOMIC HIGHTLIGHTS

After reviewing key macroeconomic indicators, it is possible to conclude the following points:

- The Pacific Alliance economies share similar economic growth over the GDP and the GDP per capita is showing signs of converging.
- The Pacific Alliance economies of Peru and Chile are roughly of the same size, but Colombia's GDP is 40% larger and Mexico is approximately 1.5 times larger than the three other countries combined in 2012. However the weight of the Mexican Economy is reducing from being 66% on 2003 to 59% in 2017.
- The Pacific Alliance MILA economies will grow faster than the rest of the world in terms of GDP and GDP per capita and higher than the largest developing economies with exception of India and China.
- The Pacific Alliance per capita of MILA economies is higher than most of the largest developing countries with exception of Russia.

2.2.4 GDP COMPOSITION PER INDUSTRY

Latin American economies have considerably changed in the last 50 years, and its countries have had different economic developments trough this period. However, there has been a common situation in these countries which is the reduction on their reliance on agriculture and extractive activities, while the services industries have begun to play a more important role on the economy.

CHILE

Being the largest producer and exporter of copper in the world, mining is one of the most important industries for the Chilean economy. Mining of copper alone represents more than 10% of Chile's total GDP. Including others minerals, mining's participation in Chile's whole production reaches 12% of its GDP. The service sector represents 21% of the total production, being almost two-thirds of it, generated by corporate services and the rest by personal services. Manufacturing, which includes the fabrication of foods, drinks, machinery, industrial equipment, chemical products, cellulose and paper related products represent 10% of the total GDP. Other industry with a

considerable contribution to the country's total GDP is commerce, which represents 9% of the production. Finally, the financial sector, representing 6% of the total production, is the last industry with a substantial impact on Chilean economy. (Banco Central de Chile, 2013).

COLOMBIA

Colombian economy has noticeably changed during the last decades. Agriculture production, especially coffee, was very important on this country's past, farming products became well-known all around the world and were crucial for the development of the current social structure (Arango, 1997). Nowadays, these products are still recognized by people from different nations in the world, but they are not part of the most representative sector in Colombia's GDP anymore. Financial sector has become the most important segment in the Colombian economy, contributing with around 20% of the total GDP. The second most representative group in its total GDP is services, which generates 15% of the total production; this corresponds to both corporate and personal services, excluding financial services. After services, manufacturing is the industry that also contributes the most to the Gross Domestic Production in Colombia; it represents 12% and includes companies dedicated to products such as drinks, foods, textiles and chemical products. Commerce, where companies such as restaurants and hotels have gained weight during the last years, participates on 12% of the GDP. Even though oil represents more than 50% of the stock market in Colombia, this industry together with mining only contributes 8% to the country's total production. As it was mentioned before, agriculture has lost importance for the Colombian economy and today industries such as cotton, coffee, sugar cane, corn, rice, cacao, banana, potatoes and flowers only represent 6% of the total production. As a final point, construction provides the 6% of the total production and it is the last industry that has an important weight on Colombian economy (DANE, 2012).

MEXICO

As it was mentioned before, Mexico has de largest GDP among the members of the Pacific Alliance, but its distribution by industry is similar to the one presented by other countries studied. Services contribute up to 62% of the country's total production, being tourism and financial services the most important groups. The former has become one of the most important activities for the Mexican economy, generating more than 3.5 million jobs, which is slightly higher than 7% of the nation's total labor force; tourism represents 13% of the GDP. On the other hand, financial services have increased their contribution to the GDP in Mexico during the last decade; as a result

of the growing number of foreign financial institutions operating in this republic, this industry has reached an 11% of the participation in its total production. Other important businesses in the Mexican economy are automotive and electronics. The former has gained importance due to the fact that many major car manufacturers have established factories in this country. Additionally, this industry has considerably advanced in terms of innovation, thus, there has been a shift from pure assembly to a mix of it along with research and development. In the case of electronics, Mexico has become the second largest supplier of these devices to the United States, which has boosted this commerce, raising its contribution on the GDP. Similarly to other Latin American countries, agriculture has decreased its participation in the Mexican GDP over the last decades. This has been the result of the transition to a more developed economy. Despite this industry contributes with more than 13% of the employment, it only represents marginally over 4% of the GDP (Economy Watch Content, 2011).

PERU

At the present time, Peru is one of the fastest growing economies in Latin America. This growth has been the result of services businesses' development in the last decade, which represent almost 23% of the total production, characterizing Transport and communications as services that are also important for Peruvian economy; this kind of services represent 10% of the GDP. From this group of industries, it is important to highlight Commerce, such as wholesale and retail trade companies, which contribute with 17% of the total GDP. After services, manufacturing is the second most representative sector in this economy, generating 16% of the total production. The utilities industry, which includes the distribution of water, gas and electricity, has a participation of 10% on the Gross Domestic Production. As it is common in South American countries, Agriculture has lost participation on the country's total production and today only represents 9% of the GDP. With a participation of 5%, mining is the last industry that has a considerable role on the Peruvian GDP (Mnisterio de Economía y Finanzas, 2013).

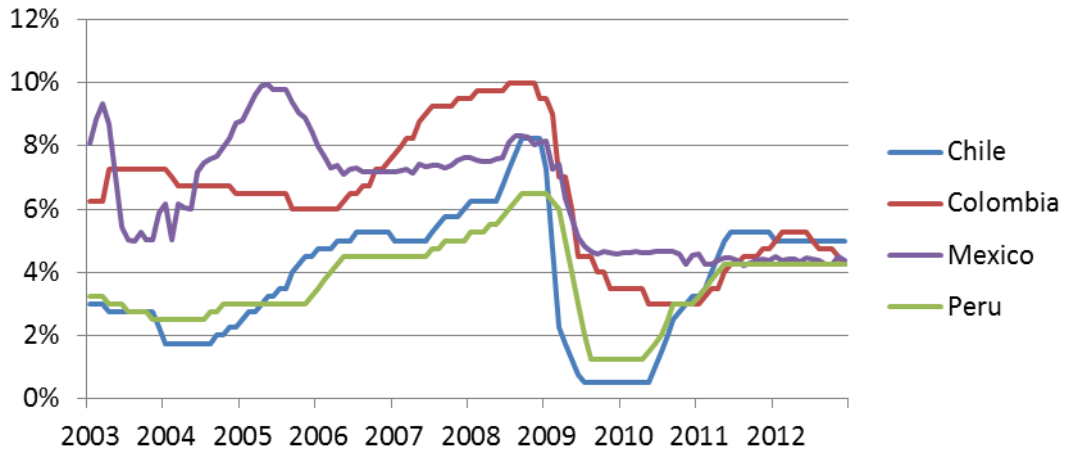
2.2.5 MONETARY POLICIES

As it was mentioned in Chapter I, the key of a successful financial or economic integration requires more than a simple elimination of transaction costs between two countries. An alignment between the economy policies is necessary, one which can merge economy objectives in the nations to be integrated. In the case of the Pacific Alliance countries, monetary and exchange policies are

particularly similar, and for that, these economies had advanced in certain degree of integration before any agreement was signed.

Regarding the monetary policy, Chile, Colombia, Mexico and Peru have defined clear objectives that converge on keeping a low and stable inflation and aim to achieve a stable GDP growth on the long-term. As a result, these three economies are based on a target inflation, which is controlled through mechanisms such as interest rate and exchange rate, having an impact on the money liquidity in the economy. Figure 12 illustrates the evolution of the interest rate in the Pacific Alliance countries from 2003 to 2012 and it is clearly observed how the interest rate policy has been aligned across these Latin American countries, which is favorable for any financial integration.

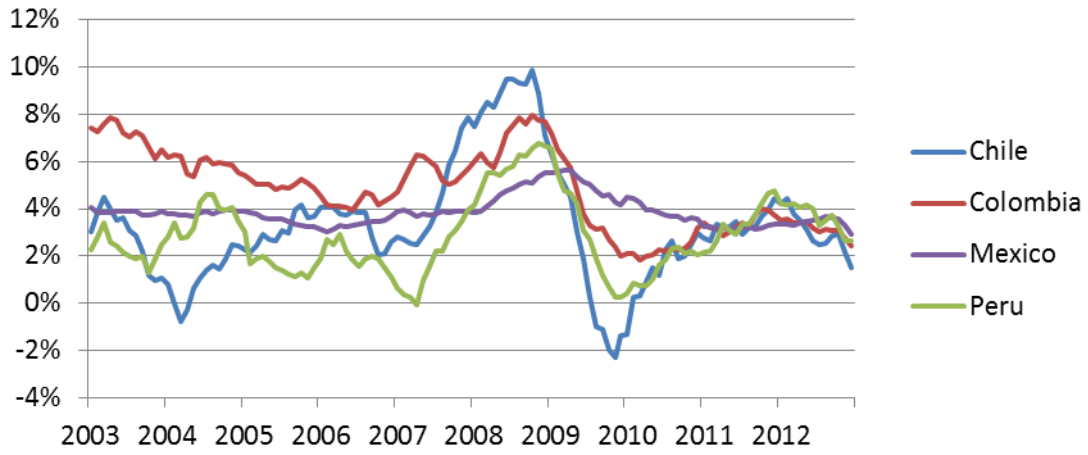
Figure 12. Central bank's interest rate in the Pacific Alliance countries 2003 - 2012



Source IMF

Figure 13 shows the evolution of the inflation in these countries; it is observed that the alignment of economy policies has led inflations that tend to converge somewhere between 2% and 3%. Nowadays, the target inflation in Chile, Colombia, Mexico and Peru are considerably close between each other. According to the central bank of each country, targets for 2013 are: Chile 3%, Colombia 3%, Mexico 3% and Peru 2%. Even though Peru has had a greater GDP growth during the last years in respect to Chile, Colombia and Mexico, the central bank in this country is optimistic in keeping a lower inflation than the countries in the region.

Figure 13. Inflation in the Pacific Alliance countries 2003 - 2012



Source IMF

Another mechanism in the monetary policy is the exchange rate. The Pacific Alliance countries have applied similar criteria in order to control it. This policy is based on a flexible exchange rate, which can be intervened under certain circumstances. The main objective is to limit the excessive volatility of the exchange rate in the short-term. This, with the purpose of controlling excessed appreciations or depreciations that can represent a threat to the target inflation and to its economy's stability. Furthermore, this is achieved by the central bank by selling or buying foreign currency in their local market, which in the case of these three countries is American Dollars (USD). In Peru, this policy is also used for the intention of protecting the dollarization.

2.2.6 FINANCIAL REGULATION

Financial markets play a fundamental role allowing the flow of funds from investors to securities' issuers with the minimum use of intermediation. The main problem that arises in these markets is the asymmetric information, which can increases the cost of financing. This problem is attempted to be solved using different institutions and laws that guarantee to investors the availability of reliable information about issuers and their securities. However, due to the limited resources of these regulatory institutions, the figure of self-regulation is crucial in most developed markets around the world (Lefort, 2005).

The discussion about regulation and deregulation in financial markets has been addressed by several studies. There are basically two groups in this discussion, one that argues that markets' efficiency is affected by the regulation, and that even a well-intended regulation can produce an

effect that is contrary to its goal, which is to improve financial markets. The other group argues that a prudential regulation is necessary in order to protect all the individuals that interact in these markets, especially today, when some organizations are becoming bigger and their decisions have a considerable impact on the market (Garber, 1996). During the credit crunch 2008 – 2009, the lack of regulation on the derivative's market was one of the reasons that accelerated the collapse of financial markets. Complex products such as CDOs and CDSs allowed financial corporations to take more risk than they could bear, which resulted in a financial crisis in the end.

For small markets, as those in Latin America, regulation in financial markets is crucial to decrease the systematic risk and protect small investors. It has been recognized that countries in this area are required to make changes in the regulation in order to improve the competitiveness and the development of financial markets. According to the Global Competitiveness Report elaborated by the World Economic Forum (2013), only Brazil has a clear and solid regulation to guarantee and protect investors' interests[14]. In this study, stands out, countries as South Africa, Finland and Singapore, which obtained a score higher than 6, conforming the top of the list.

Regulation has been one of the main concerns for the Pacific Alliance. The alignment of regulations is a crucial factor for the success of this integration. So far Chile, Colombia and Peru have been able to achieve a certain level of alignment in this aspect, but the differences with Mexico are still considerable, therefore, this country was not able to join the Latin American Integrated Market (MILA) from its first stage, which started in 2011 with the integration of equity markets. However, Chile, Colombia and Peru have to improve even more in this aspect, because the market still has limits. Today, initial public offers in the equity market are not possible due to differences in the regulations and the integration of fixed income markets is still delayed because of the same reason. Even though the level of development in financial markets differs across these countries, there are common problems that these nations are facing respect to the regulation.

The Doing Business 2012 report elaborated by the World Bank and the International Finance Corporation (2011) highlights that in Latin America the economies with the more favorable regulation for doing business in general were Chile, Peru and Colombia and, that they continued

[14] The score and position of Latin American stocks exchanges that were included in the ranking is illustrated in Appendix E.

reforming. However, with regards financial system, this study found that there are still reforms needed in these countries, which are moving towards a financial integration through MILA. Some of the areas, where MILA still needs these reforms according to Cristian Donoso, managing director of CorpBanca, are on tax systems. For example a Chilean stock trading company states that "if as a region we would like to develop a private initiative as such, the Integrated Market must be followed for a public effort over trying the tax systems on capital returns" (Cañas, 2011). Another of areas, where MILA needs to advance, is to treat the investment possibilities of the pension funds on the other participants of MILA as if they were a local investment says Jose Manual Velez, managing director of the Colombian trading company Serfinco (Cañas, 2011).

A review of the status, regarding regulation in MILA countries, is elaborated below, highlighting the entities responsible for this regulation and the main the main gaps recognized by different analysts in each country.

CHILE

Despite the fact that Chile has one of the most developed financial markets in Latin America, the regulation in the stock exchange in this country is still missing some points that are important for the Latin American integration. One of the areas that require to be addressed is the regulator's independence from the government. Furthermore, in order to define a clear legal framework and be able to efficiently regulate the market, it is necessary to invest a considerable amount of resources on the control entities, this with the aim of increasing the number of persons and the monitoring system's quality (Pasquini, 2009).

On the other hand, Chile is one of the Latin American countries that has progressed the most regarding investors rights protection. This has not only helped on motivating regional investors to increase their activity in the local capital market, but also to attract foreign investors, which has been highly positive for local industries. The financial system in Chile is regulated by four entities; the Superintendence of Banks and Financial Institutions, the Superintendence of Pension Funds, the Superintendence of Securities and Insurances and the Central Bank of Chile. Despite of the benefits of having multiple entities regulating the financial system, this requires a high coordination between these organizations in order to avoid overlapping and/or missing areas in the regulation.

COLOMBIA

Regulation in financial markets has changed considerably in the last decade in Colombia. Before 2005, this market was illiquid and new companies did not have any interest in financing through financial instruments such as equity or bonds. This was a consequence of the lack of concreted rules about corporate governance and regulation to protect rights of minority shareholders. It was in 2005, after the Organization for Economic Cooperation and Development emitted several recommendations to Colombian government in order to improve financial markets in this country (Rojas & Gozalez, 2008), when the Ministry of Treasury and the Colombian Central Bank recognized the importance of achieving protection for investors and the development of an efficient market, focusing on the reduction of the systematic risk. Subsequently, several rules and laws were enacted by its Financial Superintendence, but the most important was the creation of the AMV (Bolsa de Valores de Colombia, 2012), which is an autonomous organism, constituted by the same financial corporations that operate in the Colombian market and is responsible for regulating the market and suggesting new rules or modifications in order to improve the market efficiency.

Even though financial markets´ regulation progress has been notorious since 2005, analysts agree that the law's normativity needs some changes in order to protect investors and avoid situations like the one occurred last year with Interbolsa[15], where the conflict of interests of managers and CEOs in different investment companies caused losses for investors. Additionally, analysts have also criticized the regulation in some instruments such as repos and the amount of own resources which financial institutions are permitted to invest in financial markets, since they are allowed to take too much risk, which is dangerous for the system (Ramirez, 2012).

MEXICO

As a result of the financial crisis that Mexico experienced in 1995, which was caused by the lack of regulation on the credit together with the unfavorable macroeconomic conditions that the nation went through in that moment, the financial authorities in this country defined the majority of the laws currently valid in the Mexican regulation (Peréz, 2012). There are two organizations responsible for the control and monitoring of financial markets in Mexico. One of them is the National Banking Commission (CNBV by its Spanish initials), it regulates institutions, defining

[15] See Rojas and Gozalez (2008) for a detail explanation of the regulation in Colombian financial markets

processes such as accounting and reporting, which financial associations are obligated to follow in order to preserve the integrity of the financial system. The other one is the Bank of Mexico; it regulates transactions and financial instruments, outlining characteristics and limits. Both organizations are supported by the Law of Credit Institutions, which established the main framework for the regulation's development after the mid 90's.

Nowadays, analysts agree on the necessity of improving the regulation, particularly in financial markets, where some OTC transactions and derivatives have no regulation at all. According to Marco Avellaneda, as member of the Courant Institute of NYU (Risk Mathics Financial Innovation, 2012), in order to reduce the systematic risk, it is necessary to align financial regulation across different countries. This will contribute to eliminate regulatory arbitrage opportunities, which will motivate financial institutions and investors to take more risks in certain countries, creating instability in the markets. Mexico has developed a strong regulation for credit, but it is still necessary, there are several points regarding financial markets that require attention.

PERU

Among the Pacific Alliance's countries, Peru is the one that most needs to work on improving the regulation in financial markets. As a result the current government approved a new law called the Capital Markets Promotion Law (LPMV by its Spanish initials), which is part of the Capital Markets Reform Project presented by some politicians with the aim of improving the competitiveness of their local markets in (Palomino, 2013).

Even though the LPMV includes improvements to solve the most important problems regarding regulation in financial markets, analysts agree that this law is still missing some points that also need to be addressed soon. The main concern is that the LPMV gives more responsibilities and power to the Capital Market Superintendence, but this governmental entity's lack of resources (employees and money) could represent a higher risk. Furthermore, as it was declared by the Minister of Economy and Finance, there are critical points related with MILA that must be solved with the so called Capital Markets Reform. This refers to the homologation and alignment of the current regulation with Chile's and Colombia's one, which have better guidelines (Palomino, 2013).

CHAPTER III: LATIN AMERICAN INTEGRATED MARKET (MILA)

MILA is a product of the Pacific Alliance (Alianza Del Pacifico in Spanish). This market is the result of an agreement sign between the Stock Exchange of Colombia ("Bolsa de Valores de Colombia"), The Stock Exchange of Santiago ("Bolsa de Comercio De Santiago", Chile) and the Stock Exchange of Lima ("Bolsa de Valores De Lima", Peru). Since 2009 the three Stock Exchanges started a process for integrate the equity markets of these three countries. MILA officially started operations on the 30th of May 2011 (MILA, 2013).

The three stock exchanges formed MILA in order to be able to compete with other regional stock markets such as Sao Paulo Exchange Market in Brazil. MILA is following similar steps as the different alliances of the European exchanges such as Euronext that started with the bourses of Paris, Amsterdam y Brussels and were later joined by Lisbon and Oporto, as well as the London future exchange and the Nueva York Stock Exchange or the Norex Alliance that integrates the OMX Nordic Exchanges and the stock markets of Oslo and the Baltic Countries (Salazar, 2010).

3.1 OPERATIONS

Since MILA started operations, any investor or trader can buy and sale stocks in the three stock exchanges via a local trader. There is no longer need of using a counterpart trader. MILA integrates without fusion through the usage of technologies and harmonization of the trade markets. None of the markets loses their independences. This means, there is not direct attempt to create a unique regulation spanning across MILA markets.

As a common trading platform for the three Andean exchanges, MILA represents Latin America's second largest trading venue by market capitalization (700 million USD) after Brazil's BM&F Bovespa (1.5 billion USD) and ahead of Mexico's Bolsa Mexicana de Valores (450 million USD). By number of listings, MILA (544) is the largest trading venue in Latin America, ahead of BM&F Bovespa (381) and Bolsa Mexicana de Valores (427).

3.2 S&P MILA 40 INDEX

The S&P MILA 40 aims to serve as the key indicator of stock market performance. The MILA forty was launched on August 2011 by Standard and Poor's with the name: S&P MILA40. It integrates the stock markets in Peru, Colombia and Chile. The Standard and Poor's MIILA 40,

monitors the behavior of the 40 most liquid stocks in the Exchanges of Santiago (BCS), of Lima () and of Colombia (BVC) (Standars and Poor's, 2011).

Table 1. MILA 40 - Country Breakdown

Country	Number of Companies	Country weight
Chile	22	49.0%
Colombia	12	32.1%
Peru	6	18.9%

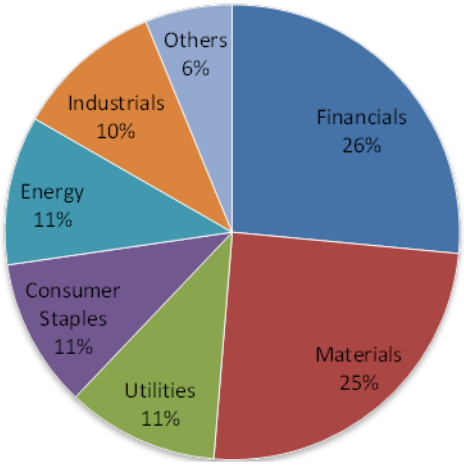
Source: Standard and Poor's.

Initially the index was composed by 22 stocks of Chile, Six of Peru and 12 of Colombia. The calculation was done on July 29th, 2011 and it was composed in 25.4% by the mining sector, 25.2% by financial sector and 11.2% by public sectors. This index decreased 2.4% from May 30th, 2011, when it started operations, to December 31st, 2012. However, in order to appreciate the performance of this market in a longer period, this index is emulated from January 1st, 2007, showing an increment of 96%[16].

At the same time Chilean companies carry a 49% of the index weight. Colombian companies carry a 32% and Peruvian companies carry a 19%. By the end of 2012 the biggest industry in the MILA 40 is represented by the financial institutions (banks, private funds) closely follow b Materials and then Utilities, Consumers Staples and Energy. The distribution of MILA 40 per industry is illustrated in Figure 14.

[16] See Appendix E

Figure 14. MILA 40 Index composition per industry 2012



Source: Standard and Poor's.

3.2.1 INDEX ELIGIBILITY

The initial selection universe for the S&P MILA 40 includes all companies that are part of the S&P Global BMI (Broad Market Index) and that are publicly traded on the MILA Trading Platform as domestic stocks. To be eligible, stocks must have a float-adjusted market capitalization above 100 million USD and a three-month average daily value traded (ADVT) in their local markets above 250,000 USD as of the rebalancing reference date. All strategic holdings are classified as either corporate, private, or government holdings and are removed from the stock's total market capitalization to arrive at the float-adjusted market capitalization. All common, investable, and preferred shares (which are of equity and not of a fixed income nature) are eligible for inclusion (Standars and Poor's, 2011).

The index consists of the largest 40 eligible stocks based on float-adjusted market capitalization. The S&P MILA 40 uses a modified market capitalization-weighted scheme, utilizing the divisor methodology that is applied to all S&P equity indices. At rebalancing, constituent weights are adjusted so that no country can have a weight of more than 50% in the index and no single stock weight can be larger than 8%. The top 10 companies that are part of the MILA 40 constitute almost 50% of the index[17]. The index is rebalanced twice a year, in March and September. The semiannual

[17] See Appendix F

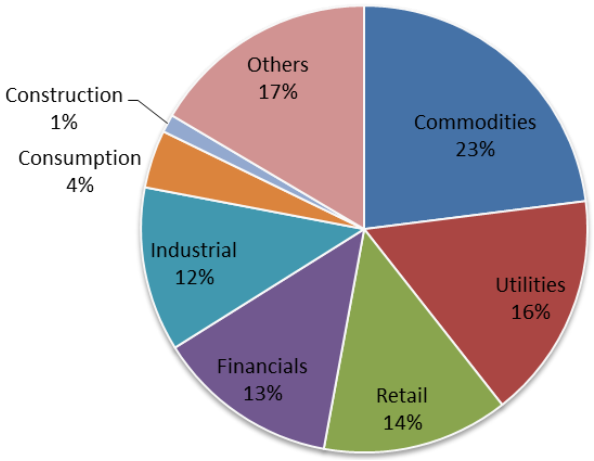
rebalancing is effective after the market's close of the last business days of these months. In order to reduce turnover, S&P Indices applies a 50% buffer rule as part of the rebalancing process. At each rebalancing, if a current constituent has fallen outside the top 40 when ranked by float adjusted market capitalization, but remains within the top 60, the stock will remain in the index. No companies are added to the index between rebalancing. (Standars and Poor's, 2011).

3.3 EQUITY MARKETS OF COUNTRIES MEMBERS

3.3.1 CHILE

The Chilean Stock Market is the most diverse of the three. Although it has a high component of commodities industries, this group represents less than a quarter of the total market capitalization. Retail and Utilities represent important representing combined a third. It is the market that shows higher market share for industries related to the internal demand.

Figure 15. Chilean Stock Market composition per industry 2012



Source: Santiago Stock Exchange.

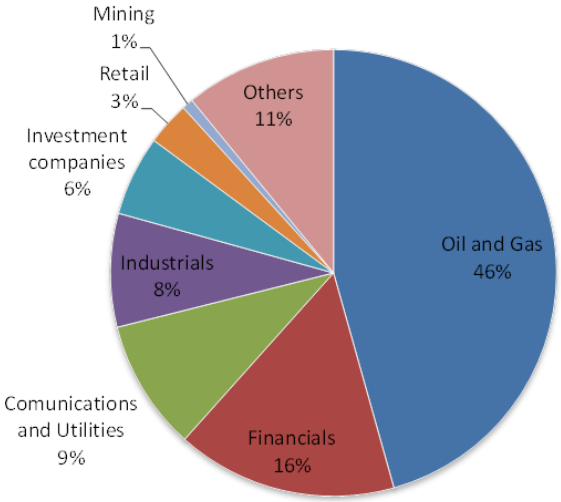
The main index for Chile, is the IPSA (Índice de Precios Selectivo de Acciones - Selective Price Index of Stocks). It is designed to measure the most liquid stocks in the Chilean market that are traded in the Santiago Stock Exchange. It is used as the best indicator of the Chilean stock market. The IPSA companies represent 69.9% (218.483 MM) of the market capitalization.

The figure 22 shows the Selective Index performance from 2002 to 2012. During this period this index grew from 1,000 points to 4,301 points. This means that in 10 years it grew by 4.3 times, which annualized it represents a growth of 14.59%

3.3.2 COLOMBIA

The main sector in the Colombian stock market is oil and gas. Ecopetrol, the Colombian oil company represents 46% of the index market capitalization. The second largest sector is the financial institutions with 16%, followed by Communication and Utilities (Electricity) companies with 9%. The Colombian Market capitalization of the Colombian Stock Market during 2012 was of 233,194 MM US.

Figure 16. Colombian Stock Market composition per industry 2012



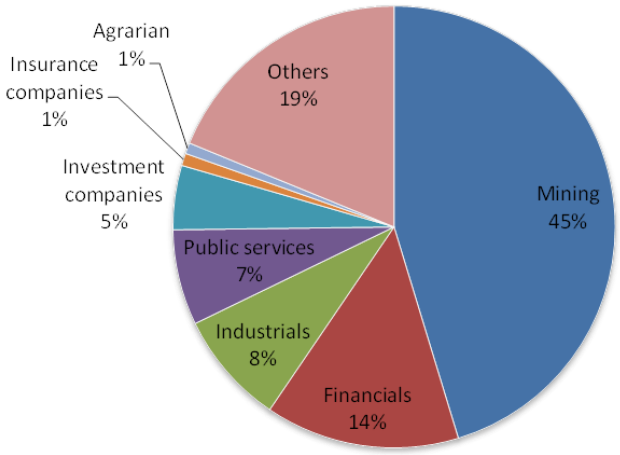
Source: Colombia Stock Exchange

The Exchange of Colombia has a major index, the General Index of Exchange of Colombia (IGBC – Índice General de La Bolsa de Colombia). It is composed by the 33 most traded Colombian companies. During January 2003 and December 2012, the index grew from 1,608 points to 14,716 points. This growth corresponds to 9.15 times over the last 10 years equivalent to a 22.1% on n an annual basis.

3.3.3 PERU

When the Peruvian stock market is decomposed, it is visible that the major industries are the mining companies with 45% of the market capitalization, followed by financial corporations and industrial companies. Unlike Chile there the major weight in the stock market is on companies that export commodities. The market capitalization of Lima by the end of 2012 was of 153,404.20 Million USD.

Figure 17. Peruvian Stock Market composition per industry 2012



Source: Bolsa de Valores de Lima

The main performance's indicator for the Peruvian stock exchange is the Selective Index of Lima. This index consists of the top 15 stocks, which are the most significant in the market capitalization. During the 2003 to 2012 period, the Selective Index grew 14.08 times, from 2,202 points to 31,000 points. This represents an annualized growth of 26.4% on an annual basis.

3.4 PERFORMANCE AND COMPARISON WITH THE WORLD

By comparing returns and risk, very important findings can be observed. Table 2 shows returns for every year from 2003 to 2012, additionally this table includes the annualized returns for the periods 2003 – 2012 and 2007 – 2012, which are important to analyze for appreciating the long-term performance of these markets and the effect of MILA integration. The values were translated to USD by using the official daily exchange rate in each country. The values are converted to USD in order to capture the implicit exchange rate in each of these markets, since foreign investors are interested in real gains.

It is clear that Peru has the highest return in the majority of the years during the period 2003 – 2012, which generated that the average annual return of this market for this period was 29,65% followed by Colombia with 26,97% and much superior than the world, which had an average annual return of 5,24% for this period. Including MILA in this analysis for the period 2007 – 2012, the results are different. Despite of MILA is not the best performing during any year during this period, it had an average annual return of 11.28%, which is higher that Chile, Colombia and Peru, and clearly superior to the world's -1.71%.

Table 2. Average annual returns 2003 – 2012 in USD

Average Return (Yearly)					
Period	**World**	**Chile**	**Colombia**	**Peru**	**MILA**
2003	26.76%	58.82%	40.14%	60.77%	N/A
2004	11.94%	25.17%	77.96%	48.25%	N/A
2005	7.26%	17.06%	80.88%	17.49%	N/A
2006	16.45%	27.58%	17.97%	112.69%	N/A
2007	6.83%	19.24%	6.17%	33.27%	26.28%
2008	-53.99%	-49.26%	-45.01%	-94.55%	-47.84%
2009	23.79%	63.59%	52.21%	72.20%	60.24%
2010	9.09%	39.82%	35.02%	39.43%	36.67%
2011	-7.89%	-26.85%	-21.05%	-11.87%	-23.43%
2012	12.34%	11.03%	24.17%	18.00%	15.89%
2003 - 2012	5.24%	18.67%	26.97%	29.65%	N/A
2007 - 2012	-1.71%	9.56%	8.56%	9.32%	11.28%

* The values are ranked in a colour scale from green to red, being green the best and red the worst.

Source: Data Stream and Standard and Google Financials

Similarly to the previous table, Table 3 shows the standard deviation of these markets for the same periods, as a measure of volatility and risk. As it was theoretically expected, with the exception of 2009, the world had the lowest volatility for almost all the years from 2003 to 2012. Also supporting the theory, the market with the highest return during this period is the one with the highest volatility. Even though Peru did not have the highest volatility from 2003 to 2006, period when Colombia was extremity volatile, the high volatility of this market between 2007 and 2012 generated that Peru had an average annual volatility of 30.27% for the period 2003 – 2012, which was higher than Chile and Colombia. The former, as a result of the development and size of the Chilean market, had consistently the lowest volatility of the three markets during this period. During the period 2007 – 2012, MILA had a lower volatility than the three markets that are part of this integration, and it was closer to the volatility of the world market. These results are consistent with the theory proposed by Stulz (1999), which indicates that a larger and integrated market increases the possibility of diversification and therefore decreases the market risk.

Table 3. Average annual standard deviation 2003 – 2012 in USD

Standard Deviation (Yearly)					
Period	**World**	**Chile**	**Colombia**	**Peru**	**MILA**
2003	13.83%	17.08%	16.83%	12.68%	N/A
2004	9.67%	18.18%	25.44%	19.52%	N/A
2005	7.97%	14.25%	22.41%	17.81%	N/A
2006	10.01%	15.62%	43.31%	28.60%	N/A
2007	12.97%	22.05%	25.52%	30.92%	20.26%
2008	33.00%	40.34%	41.76%	56.52%	37.86%
2009	23.32%	22.42%	26.89%	34.63%	23.10%
2010	16.74%	17.09%	20.82%	21.04%	16.64%
2011	21.57%	29.29%	21.73%	36.54%	22.36%
2012	12.78%	14.02%	18.50%	14.81%	12.83%
2003 - 2012	17.85%	22.56%	27.84%	30.27%	N/A
2007 - 2012	21.34%	25.85%	27.10%	35.21%	23.67%

* The values are ranked in a colour scale from green to red, being green the best and red the worst.

Source: Data Stream and Standard and Google Financials

For a better understanding of the relationship between risk and return during the period on analysis and the impact of financial integration, it is important to look at the Sharpe Ratios of these markets. The Sharpe Ratio is used to measure the risk adjusted performance of investors (Brealey, Myers, & Allen, 2011). Although some authors such as Nielsen and Vassalou (2004) and Dowd (2000) highlight some of the weakness over the Sharpe Ratio such as the changes over time on volatility and risk free over the portfolio (Nielsen & Vassalou, 2004) or the potential mistakes when benchmarking for specific results and does not include the view of the different correlations among the portfolios (Dowd, 2000); it is believed that this still offers interesting results worth mentioning.

During 2003 and 20012, there were two years that were heavy impacted by the financial crisis 2008 and 2011 during those years the Sharpe Ratio was negative, which indicates that the risk free asset would have been a better investment. In this case, the analysis focus on the period 2007 – 2012, in which MILA is included. It is clearly observed that during this period that MILA (0.34) has a higher Sharpe Ratio than Chile (0.25), Colombia (0.20) and Peru (0.17) separately. This means that

the reward that every that investors obtain for being exposed to the risk in these markets is much higher in MILA[18].

3.4.1 MILA AND THE CAPITAL ASSET PRICING MODEL (CAPM)

As described before, the CAPM establish that the Expected return of an asset equals to the risk free rate plus the market premium between the market and the risk free rate affected by the sensitivity, β (beta), as coefficient between the covariance of the asset and the market divided by the variance of the market.

$$E(r_i) = r_f + \beta_i(E(r_m) - r_f) \quad (4)$$

ASSUMPTIONS

In order to apply the CAPM model it is necessary to make a series of assumptions. First, the risk free rate is the bond yield of the United States' treasury bonds for 10 years[19]. Second, the asset in this case is represented by the country stock index. As before and in order to make the indexes comparable they have been converted from local currency to USD. Third, the market portfolio is in this case represented by the global index. It is assumed that investors are flexible to invest abroad and in order to compare the index, the relevant approximation of market portfolio it is the world itself. Therefore, the MSCI World Index is selected as market portfolio. It is an index maintained by Morgan Stanley Capital International. The MSCI World Index captures representation across 24 developed markets with 1607 participants covering approximately 85% of the free float adjusted market capitalization (MSCI, 2013).

CHILE, COLOMBIA AND PERU (2003 – 2012)

Table 4 summarizes the performance and CAPM key features of MILA markets and the world during the period 2003 – 2012. Despite this period is affected by the financial crisis in 2008, which had an impact on the returns and the volatility of all the markets around the world, it is worth to observe the values of the betas for these markets in that period.

[18] See Appendix I for more details about Sharpe Ratios for the period 2003 - 2012

[19] See Appendix J for the details of the risk free rate 2003 - 2012

Table 4. Key CAPM features MILA countries' indexes 2003 - 2012

2003 - 2012	World	Chile	Colombia	Peru
Average return	5.24%	18.67%	26.97%	29.65%
Standard deviation	17.85%	22.56%	27.84%	30.27%
Excess return	1.58%	15.01%	23.31%	25.98%
Beta	1.00	0.83	0.75	0.96

Source: Data Stream

Chile, Colombia and Peru have similar Beta which means that their component of systemic risk is very similar and therefore their excess returns are moving in a similar way. However Colombia and Peru have a much higher idiosyncratic risk which is visible with a volatility of 27.84 and 30.27 respectively. As reviewed in the previous chapter, Colombia and Peru have a lower financial and economic development than Chile, also as it will be seen in next chapters Chile has a higher credit rating, all of which is consistent with Chile's lower volatility.

MILA (2007 – 2012)

In order to observe the impact of the introduction of MILA on the diversification of the idiosyncratic risk, a similar analysis is performed as before but including MILA results. Since there is no data available on MILA before 2007, table 6 only shows 2007 to 2012 results. Table 7 shows similar results but it only starts from May 2011, the official date MILA started.

As defined by the theory, the systemic risk is non-diversifiable. Since the Beta of each market represents the systemic risk sensitivity to the movement of the world market, therefore, the Beta of MILA is the weighted average of its components, as it can be seen in Table 5 and Table 6.

Table 5. Key CAPM features MILA countries' indexes 2007 - 2012

2007 - 2012	World	Chile	Colombia	Peru	MILA
Average return	-1,71%	9,56%	8,56%	9,32%	11,28%
Standard deviation	21,34%	25,85%	27,10%	35,21%	23,67%
Excess return	-4,94%	6,33%	5,33%	6,09%	8,05%
Beta	1,00	0,84	0,74	1,03	0,87

Source: Data Stream and Standard and Google Financials

On the other hand the idiosyncratic risk of Chile, Colombia and Peru are able to be diversified with MILA, as result of the different securities and characteristics that compose each market. As the

MILA standard (23.67%) deviation is lower than even the lowest of its components (25.85%). As Table 6 shows, the results post 30th of May 2011 are still consistent.

Table 6. Key CAPM features MILA countries' indexes Post 30th May 2011.

Post Mila	World	Chile	Colombia	Peru	MILA
Average return	0,00%	-8,99%	3,49%	5,18%	-1,99%
Standard deviation	18,92%	23,79%	20,79%	26,39%	18,92%
Excess return	-2,02%	-11,02%	1,46%	3,15%	-4,01%
Beta	1,00	0,90	0,77	0,80	0,79

Source: Data Stream and Standard and Google Financials

OVERALL CONCLUSION ON THE PERFORMANCE

Historically, the sensitivity of Peru and Chile, measured by the Betas of the CAPM, towards the global economy is greater than in Colombia. Reasons behind relates to the equity index compositions. Peru and Chile are highly influenced by mining companies and that industry is closely related to the international economic cycles and therefore to the market risk premium variances. Colombia, although also commodity based, the main stock is Ecopetrol, which is an oil based company and the barrel price has increased during the last years. Furthermore, the volatility of each market after the introduction of MILA did not decrease consistently but it still remains high, however, the volatility of the three markets integrated has a better performance than the best of the individual markets and it is closer to the world's market portfolio. Finally, the relationship between risk and return measured by the Sharpe ratio also over perform the individual markets.

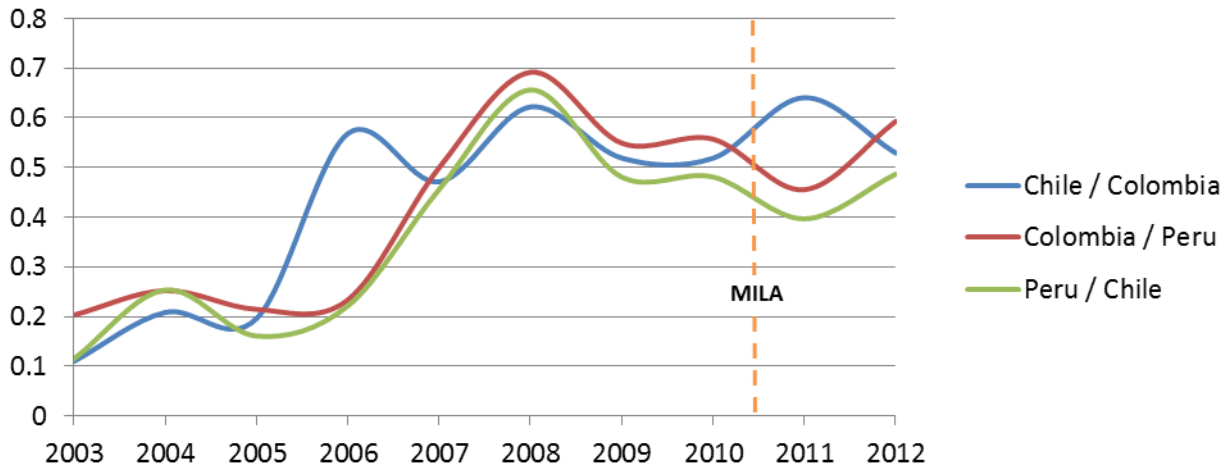
3.4.2 EQUITY MARKETS CORRELATIONS

As it was mentioned in previously in Chapter I, the benefits of financial integration are obvious. The diversity between Latin American countries creates opportunities for investments' diversification when these markets integrate. As it was described in Chapter III, the diversification of the idiosyncratic risk is notorious during the period 2007 – 2012 when the MILA index is simulated.

According to the theory reviewed in Chapter II about the impact of financial integration on the CAPM model, the correlation between the markets that are integrated is a crucial factor for measuring the potential benefits as a result of that integration. This can be addressed from two different perspectives; first, for the local investors in each of these countries the benefits are

determined by the correlation between the local market and the markets that are being integrated with. For example, investors in Chile obtain higher benefits form an integration with Peruvian market, when these two markets are less correlated (Stulz R. , 1999), being none the benefit when the markets are perfect correlated (ρ=1). The second perspective corresponds to the international investors, whose portfolio's risk premium is determined by the world market. For these investors benefits of diversification are determined by the correlation between the integrated markets, which in this case are Chile, Colombia and Peru, and the world market.

Figure 18. Market correlations between MILA countries

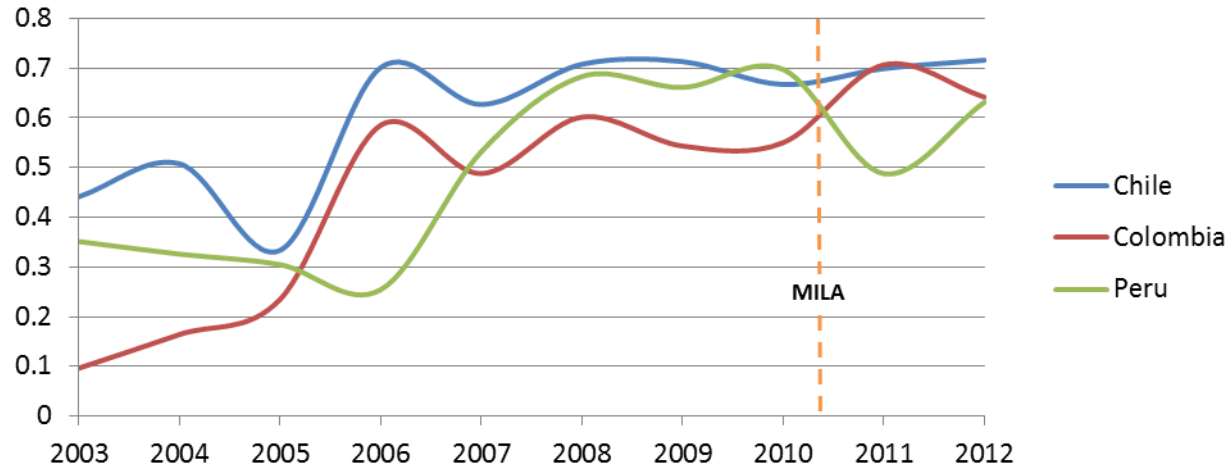


Source: DataStream.

Figure 18 illustrates the variation of yearly correlation between equity markets indexes of Chile, Colombia and Peru, from 2003 to 2012. There are two aspects to highlight in this graph. First, regardless of the geographically closeness of these countries, correlations during the beginning of the last decade between the equity markets were significantly low, particularly for Chile, which had a correlation with Colombia and Peru lower than 0.1 in 2003. Second, the correlation between all three countries increased considerable between 2003 and 2008, reaching levels of 0.7 in the case of Colombia and Peru. After 2008, there have been some variations, but in general the level of correlation between these markets has been 0.55 in average. As a result of this, MILA offers clear opportunities for the diversification of the idiosyncratic risk, which was reviewed in Chapter III, since there is a positive correlation, but it is still lower than 1. Figure 18 also shows when MILA started operations in May 2011. It is interesting to observe that the creation of this integrated market

would allow investors to capture the benefits of diversification before correlations increase to levels closer to 1.

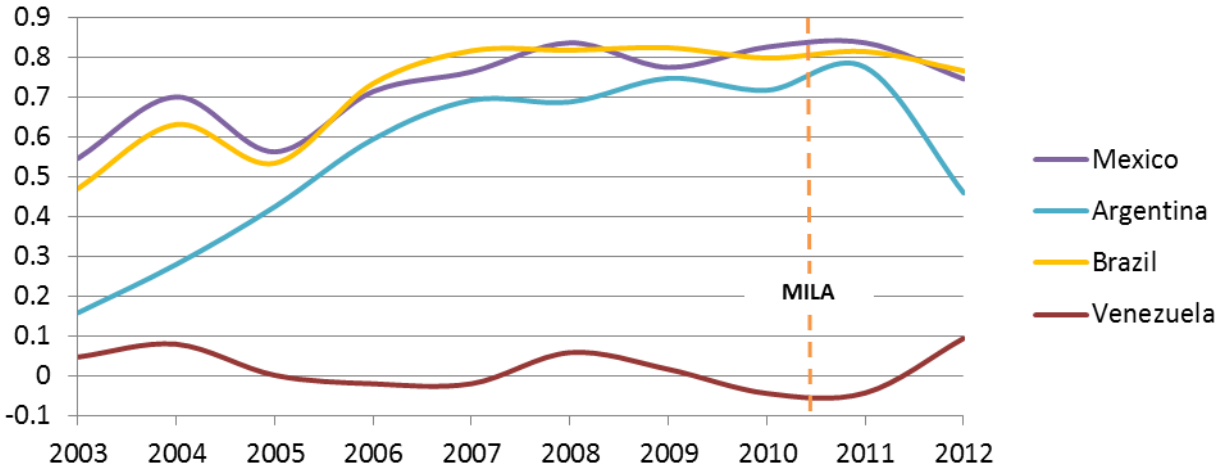
Figure 19. MILA countries' correlation with the world market



Source: DataStream.

Regarding the correlation of MILA countries with the world market, Figure 19 illustrates the evolution of these correlations during the period 2003 to 2012. It is observed that the trend is to a certain degree similar to the variation of the correlations between the markets. The correlation of these markets with the world market after 2003 has been increased as result of the increasing participation of these markets in international portfolios as was mentioned in Chapter III. Good credit ratings, reduction of the inflation and its volatility have been the causes of this. However, this has been a common characteristic for all Latin American countries with actives financial markets, and it is not limited to MILA countries. Figure 20 illustrates the evolution of the correlations of other Latin American countries with the world market. Brazil and Mexico have a similar trend as MILA countries; Argentina shows a tendency of aligning its trend with MILA towards 2003 to 2006 and following it during the crisis years 2007 to 2011 but in 2012 it decreases again; Venezuela however shows almost no correlation with the world market, which is explained by the size and development of the capital market in this country addressed in Chapter III. This also occurs with Uruguay and Paraguay, which have financial markets even more undeveloped and smaller than Venezuela.

Figure 20. Others Latin American countries correlation with the world market



Source: DataStream.

It is important to highlight three aspects form the previous figures. First, despite the fact that an increment on the correlation with the world market during the last decade is something common in all the countries with an active capital market, MILA countries show a better convergence and integration than those countries member of other economic alliances such as Mercosur. This situation does not differ, when Mexico is included as part of the analysis and the comparison is made between the Pacific Alliance and Mercosur. Second, the degree of correlation of Brazil and Mexico with the world market is significantly higher than the rest of the countries, 0.8 in average since 2007, while Chile has had an average of 0.7, and Colombia and Peru 0.6 for the same period. However, these differences are the potential for MILA and represent how much the markets of Chile, Colombia and Peru required to be integrated in order to reach the same levels as Brazil and Mexico.

3.5 CORPORATE BOND MARKETS OF COUNTRIES MEMBERS

Corporate debt issuance in financial markets growth during the last decade, particularly in emerging markets, has resulted from a necessity instead of a planned development (Luengnaruemitchai & Ong, 2005). This was observed during the financial crisis in 2008 and 2009, where the vulnerability of financial sector and the reliance of companies on banks as a financing source, forced companies to find sources of financing different from traditional bank loans. As a result of this situation, development of local bond markets became one of the main financial concerns for many emerging economies around the world.

3.5.1 THE IMPORTANCE OF CORPORATE DEBT MARKETS

The necessity of insulating companies from balance sheet risk that financial crisis created in banks in the past has been recognized by several studies. Furthermore, a developed and robust domestic bond market is essential to retain the companies' capacity to borrow, especially when financial corporations face difficulties and become weak, therefore, the credit is rationed (Borensztein, 2008). In well-diversified financial systems, banks supply financing to small and medium companies that cannot directly access to financial markets. Meanwhile, large and well-established borrowers access directly financial markets, obtaining cheaper and more stable sources of financing. This is crucial, especially in Latin America in order to guarantee the supply of financing when corporations are growing and the shift from traditional bank funding to financial markets happens fast.

In recent years, emerging markets have shown improvement on the bond markets, however, most of these markets remain small and illiquid compare to international standards. The lack of liquidity in these markets is a consequence of disinterest, especially on non-financial corporations, to issue debt instruments denominated on local currency, with fixed coupons and long-term maturities. Another factor that has had a positive impact on the development of corporate bond markets in emerging countries is the demand side, represented by institutional and individual investors. Emerging corporate bond markets have become a growing and attractive opportunity for investors (Ivanov, 2011) . In these markets there are a considerable number of issuers that are renowned, fast-growing and large companies, but they have had a low participation in global investors' portfolios because rating agencies do not usually include them in most popular indexes or benchmarks. This increases the research time that investors have to use to evaluate these investment prospectus. Nevertheless, corporate bond markets in emerging countries have offered more attractive yields and higher returns than other fixed income markets and their default rates have been similar to United States' high yield bonds. This has made investors to pay more attention to these markets nowadays than in the past. As a result, corporate bond markets, particularly in Latin America, have become a tool for some of the more important sectors in these economies to capture direct foreign investment. This has a positive impact on the GDP growth and economic sustainability in the long term.

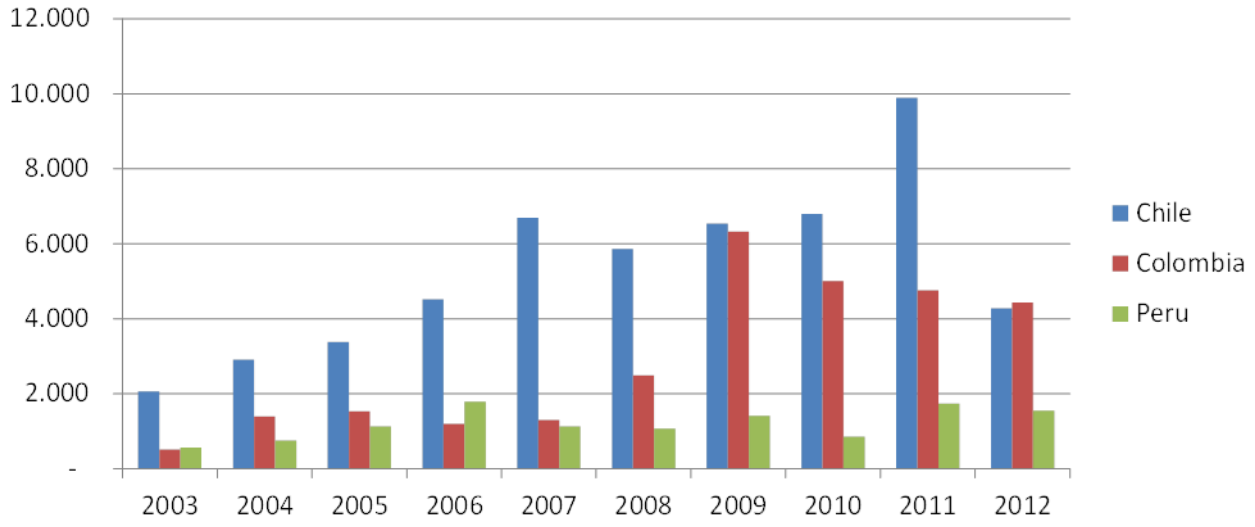
3.5.2 CURRENT STATUS

Evolution of bond markets differs across the Latin American region. The main difference is the result of size and development of other financial markets such as equity and loan markets in these countries. Even though financial markets i.e. stock market, bond market, bank loan market, complement each other, the fact that one is more developed than the others facilitates the access of borrowers to the most developed market, decreasing demand of capital from the other markets (Braun, 2006). Another factor that has an influence in this difference is the regulatory framework design, especially regulation related to creditors' protection, in view of the fact that this reduces the risk for investors and motivates them to invest in corporate debt markets.

Although the size of these markets as percent of the GDP is, in general, lower than other economies, there are considerable differences between the countries across the Latin America region. Brazil, which has the largest equity market in this region in terms of market capitalization, has a corporate bond that rose up to10 percent of the GDP in 2011. Having an outstanding amount in the market, in absolute terms of 247,000 million USD approximately, Brazilian corporate bond market is by far the largest in the region. However, due to lack of fixed coupons and long maturities of the bonds traded in the country, this market has not achieved a development comparable with markets as Chilean corporate bond market (Park, 2012). Floating and complex coupons make harder a bond pricing and therefore this type of bonds become less attractive for investors, having a negative impact on the development of the market. On the other hand, corporate bond markets in other countries such as Venezuela and Bolivia are still in an early stage. These markets have considerably low traded volume and non-financial corporations use bank loans as a main source of financing. In addition when companies in these countries have issued corporate bonds, it has been, most of the time, in international markets, as the case of Venezuela's PDVSA[20].

[20] PDVSA – Petroleos de Venezuela S.A.: It is a Venezuelan state-owned oil and natural gas company.

Figure 21. Corporate bonds amount issued per year in MILA countries



Source: Bloomberg

Notwithstanding there is a clear differentiation between the size of corporate bonds markets across MILA countries. It is hard to conclude a difference between the levels of development of these markets without looking deeper. Countries' economies are a determinant in the size of these markets and since this study is analyzing countries with different GDP levels, in 2011 Chile 249, Colombia 333 and Peru 177 billion USD, it is obvious to find these diverse sizes of financial markets between these countries. The development of corporate bond markets is determined by bonds characteristics rather than the evolution of absolute amounts or the size of the market. Based on information from Bloomberg, the next section of this paper analyzes the main characteristics of corporate bonds traded in each of these countries and their impact on the market development.

CHILE

Chile has particularly more developed financial markets than Colombia and Peru. The Corporate bond market is not the exception, which is clearly the largest and most developed corporate bond market of MILA countries. Chilean bond markets developed strongly during the lattes 80's and early 90's, when energy and telecommunications companies required financing for large projects and financial corporations did not offer competitive rates due to the lack of liquidity and solvency. In addition to this, pension funds were looking for new assets to diversify their portfolios and corporate bonds from solid industries such as energy and telecommunication were an excellent alternative to traditional investments in commodities (Restovic, 2011).

In recent years, the amount issued by corporations a year has been growing significantly, reaching levels in the domestic market of almost 10 billion USD in 2011. However, corporations have also been interested to issue bonds in foreign markets, which had a negative impact on the domestic market in 2012, when the amount issued in the Chilean domestic market dropped to almost 4 billion USD and the amount in foreign markets reached 8 billion USD, which has been its peak during the last decade. But this has not been an impediment to increase the amount of outstanding debt in the local market, which at the end of 2012 was 68 billion USD, representing 25% of the GDP of the same year.

Table 7. Corporate Bond Market Evolution in Chile

Year	Total issued USD (MM)	Max Issued USD (MM)	Min Issued USD (MM)	Avg Issued USD (MM)	Min Maturity Years	Max Maturity Years	Avg Maturity Years
2003	2,057	371	1.7	50.18	4.0	30.0	12.9
2004	2,909	448	2.2	76.56	4.0	30.0	15.0
2005	3,377	297	4.4	75.04	4.0	30.0	13.6
2006	4,519	470	1.7	85.27	4.0	30.0	13.7
2007	6,696	385	0.7	95.66	2.9	30.0	11.9
2008	5,864	499	1.5	108.58	1.5	29.5	12.9
2009	6,531	337	17.1	89.46	1.5	26.0	10.9
2010	6,790	290	1.8	111.31	2.5	32.0	10.9
2011	9,885	479	21.0	125.13	1.5	30.0	10.3
2012	4,275	371	30.0	101.78	1.5	25.0	10.9
Total	**52,903**	**499**	**0.7**	**95.15**	**1.5**	**32.0**	**12.0**

Source: Bloomberg

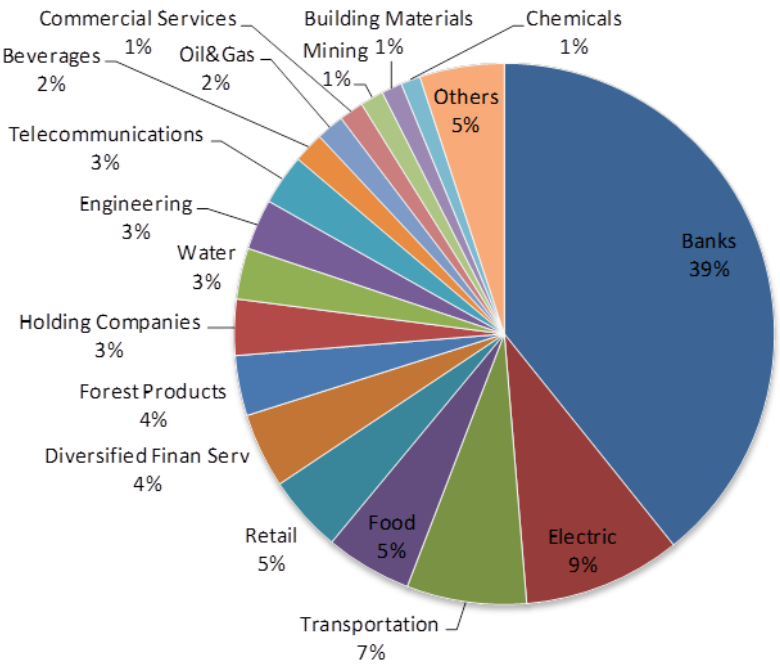
When the evolution of corporate bonds basic characteristics the last decade in Chile is analyzed, it is observed that they have not changed considerably, since the largest development was achieved before this period. Nonetheless, there are two aspects that require being addressed i.e. issuance size and maturity in order to understand the cycle that Chilean corporate bond market is living. As Table 7 shows, while the issue size has been growing since 2003, corporations have been issuing bonds with shorter maturities during this period.

The average size of a bond issuance for companies was 50 million USD in 2003, but it has growth progressively year by year, reaching 100 million USD in 2012. Something similar has occurred with the minimum issuance size issued, which has been more than 20 million USD in recent years, contrasting with the low sizes observed during the first years of the last decade, less than 4 million

USD. On the contrary, the maximum issuance size has not varied and it remains around 400 million USD.

Maturities of corporate bonds in Chilean market have been much longer than the average in merging countries. This characteristic has made Chilean corporate bond market highly developed in regard to other countries, not only in the Latin American region, but also around the world. More than 85% of the outstanding amount in the market today was issued with a maturity longer than 5 years and more than 55% was issued as long-term debt, a maturity greater than 12 years. Bonds with longer maturities tend to have higher durations, which are attractive for investors and therefore market's liquidity is increased. However, the evolution of bond maturities is totally appositive to issuance size. The average bond maturity has become shorter during the last decade. Even though Chilean market is still one of the markets with the longest maturities, it is possible to observe that during the first years of the last decade the average maturity was 14 years and in recent years it has been reduced to levels of 11 years. Furthermore, the minimum maturity has also decreased in recent years. From 2003 to 2006 the minimum maturity that companies used to issue bonds was 4 years, but after 2008, issuances with 1.5 years to maturity were available in the market. This evolution in maturities and sizes is the result of the continuously use of this market for traditional companies, increasing issuances size when they are growing and being accessed by new issuers every year, which issue bonds with shorter maturities in order to find lower interest rates.

Figure 22. Chilean Corporate Bond Market composition by Industry



Source: Bloomberg

Regarding the type of issuers, it is important to highlight how in years that financing from banks has been limited or costly, non-financial corporations have made use of the corporate bond market. 2008 and 2009 were complicated years for financial institutions; the crisis forced them to limit the lending money, due to solvency and liquidity problems. This had a positive impact on bond markets, increasing the number of issuers, especially non-financial corporations, which went from 14 companies in 2007 to 33 companies in 2009, for a total of 45 issuers considering all kind of corporations.

Figure 22 illustrates which industries constitute the Chilean corporate bond market today. This market is dominated by issuances from financial corporations i.e. banks, diversified finance services, investment, insurance and private equity companies. These corporations together represent 45% of the outstanding amount in the market, being banks alone the top issuer industry by far with 39% of the market. Even though the market is clearly concentrated in financial corporations, there are several non-financial industries that also issue bonds, being the most representative (after banks) electric, transportation, food and retail companies, which hold 9%, 7%, 5% and 5% of the outstanding debt in the market respectively. These industries are part of the 17 different industries that hold at least 1% of the outstanding debt, this variety of industries provides a degree of diversification that is attractive for investors, which are always looking to diversify their portfolios.

Issuers in Chilean domestic market are characterized to be large companies. 55% of the outstanding debt in the market has been issued by a company and/or a subsidiary of a company included in the Chilean top 100 ranking. Although the rest of the issuers are not included in this ranking, the majority of them are still being catalogued as large companies. Besides, there are a considerable number of issuers under a "trust assets" scheme, which are used to finance projects of road infrastructure. Issuers are also characterized to be listed companies or subsidiaries of listed companies. Around 60% of the outstanding debt in corporate bond market comes from this type of issuers.

The high development of Chilean corporate bond market can be also appreciable analyzing more elementary characteristics of bonds. The type of bond preferred by Chilean issuers is the traditional bullet bond. This type of bonds represents 41% of the outstanding amount in the market. Nevertheless, there is an important amount of callable 30% and sinkable 29%, being the latter and extremely safe type of bond[21]. Regarding the type of coupon, Chilean corporate bond market is composed in its majority for fixed coupon bonds. This type of bonds represents 98% of the total amount of outstanding debt in the corporate bond market in the Santiago de Chile's stock exchange. Fixed coupon bonds are easier to price because there is not an extra risk component in the coupon, consequently, they are more attractive for investors. About the currencies, the Chilean Development Unit[22] is the predominant currency in the market with almost 93% of the outstanding debt. This currency offers protection to investors against inflation, which make these assets attractive for investors.

Credit rating as a risk measure is mandatory for issuances in Chile. According to the local market regulation, long-term bonds are required to be assessed by two different credit rating agencies and

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[21] This bond forces the issuer to save money on during the bond's life to guarantee principal and interest payments to investors. This reduces the risk and therefore the issuer is able to obtain funds at a lower interest. Additionally, these bonds required that the issuer buy back part of the amount issued at different points before maturity

[22] Chilean Unidad de Fomento (CLF) is a unit of account that is constantly adjusted to the inflation. It has become the preferred unit of measuring for any loan, either private or from the government. Interest and principal payments are made in Chilean pesos (CLP) according to the daily value for the CLF determined by the Chilean central bank.

short-term bonds by one credit rating agency. These credit ratings are performed by local agencies, which have partnerships with world-wide and well-known rating agencies such as Moody's, Standard & Poor's and Fitch (Restovic, 2011). Chilean market has become more attractive for investors due to many of the characteristic mentioned previously in this section. Therefore, The Dow Jones in collaboration with Standard & Poor's has developed an index called LATixx Chile Corporate Bond Index [23], which provides investors a benchmark to evaluate investments opportunities in this market.

Traditionally the demand of corporate bonds in Chile comes from institutional investors such as pension funds and insurance companies. But in recent years, individuals with a considerable large wealth have become interested in this market, since corporate bonds offer better yields at a slightly higher risk than more traditional investments. It is interesting that recently companies from United States are planning to issue corporate bonds in Chilean market. This is the case of Goldman Sachs, which has announced its intention to issue bonds with maturity up 50 years in this market. According to Bloomberg news (Boyd S. , 2013), this company is in the process to obtain authorization for issuing 20 million of Chilean Unidades de Fomento, which is equivalent to nearly 1 billion USD. This situation makes questioning the reasons why Chilean companies use international markets for financing, when the local Chilean market offers even more attractive conditions for foreign issuers than those found in international markets.

COLOMBIA

Colombian corporate bond market developed strongly during the last decade due to the sustainable growing rate of the economic in this country, which was over 4% a year in average from 2003 to 2012. Colombian fixed income market, including sovereign debt, increased the outstanding amount in 249% in this period. As a result of this, fixed income market represents 91% of the capital market in Colombia, becoming an important source of financing for companies and government, and an investors' alternative to invest in different industries (Valderrama, Martinez, Gonzalez, & Ramirez, 2012).

[23] LATixx Chile Corporate Bond Index measures the performance of all local investment-grade corporate issues, including bank bonds and subordinated bank bonds. This index is market-cap weighted.

From 2003 to 2007 the liquidity in financial markets was the key factor for development of Colombian corporate bond market. Due to the economic growing that Colombia showed during these years, the trading volume in financial markets increased considerably, which decreased spreads in the market and pushed interest rates down (Lucas Jr., 1990). In spite of this, during this period, there were only few corporations that used fixed income markets as a financing source. The total amount issued by companies in this period was in slightly over 1 billion USD a year in average and they were characterized to be issuances from financial corporations. The legal framework was only well defined in 2005, caused by concerns from investors and borrowers on the ruling of the corporate bond market, since the regulation at that moment was more focused on sovereign debt rather than corporate debt (Clavijo, Gonzalez, & Gonzalez, 2012). For that reason, it was only until 2008 when non-financial corporations started to use more actively fixed income market as a source of financing, in this year the amount issued rose up to 2.5 billion USD. Finally in 2009, as a result of the solvency problems that financial corporations were financing due to the financial crisis initiated in 2008, non-financial corporations were forced to finance their capital requirements directly from investors, without using the intermediation of financial corporations such as Banks. Companies from different industries issued bonds in 2009 and the total amount issued in the local market exceed 6 billion USD. In recent years, the average amount issued by corporations has stabilized significantly over 4 billion USD a year and the amount of outstanding debt has been increasing constantly.

Despite the development that Colombian corporate bond market has had during the last decade, the relative size respect to the GDP is still being considerably low. At the end of 2012, the amount in the market of corporate debt was nearly 24 billion USD, which represented 6.5% of the GDP for the same year. Chilean market represented 25% of the GDP at the end of 2012.

Table 8. Corporate Bond Market Evolution in Colombia

Year	Total issued USD (MM)	Max Issued USD (MM)	Min Issued USD (MM)	Avg Issued USD (MM)	Min Maturity Years	Max Maturity Years	Avg Maturity Years
2003	514	95	0.5	16.07	1.0	10.0	5.5
2004	1,398	202	0.7	26.89	1.5	15.0	5.5
2005	1,534	236	1.1	42.61	1.5	12.0	5.6
2006	1,192	200	1.3	31.38	1.5	20.0	5.8
2007	1,294	178	0.9	43.13	1.5	10.0	4.2
2008	2,495	130	0.6	34.65	0.4	10.0	4.3
2009	6,324	786	0.7	54.05	1.3	40.0	7.0
2010	5,003	260	0.5	61.77	1.0	30.0	5.9
2011	4,764	341	1.9	66.17	1.4	30.0	6.3
2012	4,430	411	7.0	79.10	1.5	20.0	6.4
Total	**28,948**	**786**	**0.5**	**49.40**	**0.4**	**40.0**	**5.8**

Source: Bloomberg

By contrast to Chile, in Colombian corporate bond market both maturity and size of issuances have improved during the last decade. Although this improvement has not been considerably large in maturities, it represented a positive evolution, that in the case of Chile the maturities were decreased during the same period. Colombian corporate bond market has considerably short maturities in general, but they are still within the average for emerging countries, which is 6 years[24]. Before 2009, with the exception of 2006 when Interconexion Electrica SA ESP[25] issued two bonds with a maturity of 20 years, companies used to issue bonds with a maturity maximum of 12 or 15 years. But in 2009 this trend changed and issuances with maturity up to 40 years were observed in the market. After this, it became common to see issuances with maturities greater than 20 years, which has contributed to increase outstanding debt average maturity in the market. As Table 8 shows, issuances average maturity at the beginning of the last decade was 5.5 years, but in 2012 this average rose up to 6.4 years. Finally, it is important to mention that as a result of short maturities, 58% of the current outstanding debt in the Colombian corporate bond market will mature within the next 5 years.

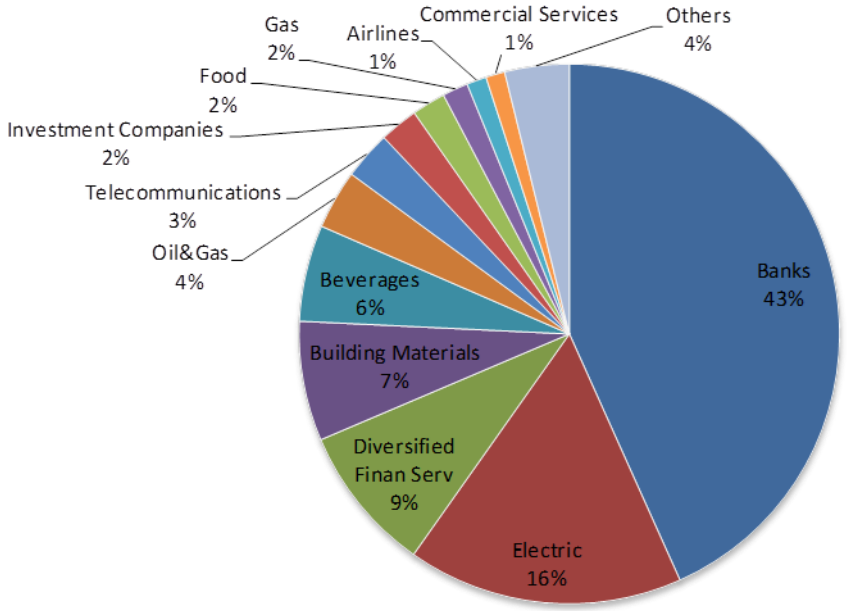
On the other hand, the size of issuances of corporate bonds in Colombia has increased considerably during the last decade. In particular, the maximum size of the issuances went from 95 million USD

[24] See Braun and Briones (2006)

[25] The largest Colombian energy company.

in 2003 to 411 million USD in 2012. Even though there are still considerably small issuances of less than 91 million USD, the increment in the maximum size of the issuances had a positive impact on the average size of a bond issuance, which increased almost 400% in this period. This average was only 16 million USD in 2003 and reached 79 million USD in 2012.

Figure 23. Colombian Corporate Bond Market composition by Industry



Source: Bloomberg

Diversification for investors is limited in Colombian corporate bond market. In average, only 18 companies a year made use of the corporate bond market as a source of financing during the last 10 years. Just in 2009, during the financial crisis, the number of corporations issuing bonds in Colombia reached a total of 29, performing 117 issuances, which has been the maximum number in the last decade. This lack of issuers has led a market concentrated in only few industries. As Figure 23 illustrates, only 8 industries represented 90% of the outstanding corporate debt in Colombia at the end of 2012. The largest share of the market is represented by Banks, which together with other financial related industries such as Diversified Finance Services and Investment Companies hold more than 54% of the market. Furthermore, these 8 industries that represent the majority of the market are high positive correlated, besides the big group of financial related industries, there is another group conformed by Electric, Oil & Gas and Telecommunications companies that represent together 23% of the market. This concentration in only few industries and the high positive

correlation become barriers for attracting new investors, since the diversification in bond portfolios become harder to achieve.

Due to high transactions costs and high requirements on the local regulation, Colombian corporate bond market is accessible only for large companies. 90% of the companies that had outstanding debt in the market at the end of 2012 either were including in the top 100 Colombian largest companies or were a subsidiary of a company included in this ranking. Equity market in Colombia is also concentrated in few companies and the majority of large companies are not listed, thus, only few companies that have issued bonds are public listed in the stock exchange and being a listed company is not a common characteristic among issuers.

There are specific characteristics in Colombian corporate bond market that make it difficult to attract new investors, especially international ones. Nearly 86% of the outstanding debt in in this market was issued under a floating coupon rate. This feature complicates the pricing for some bonds at least, but this offers investors protection against some sources of risk such as inflation or interest rate. The trend to issue bonds with floating coupons is the result of high interest rates during the last years. By the time corporate bond market in Colombia began to be popular, Colombian Central Bank economic policies were focused on reducing interest rates to motivate the economic growing. Corporations that were issuing bonds at the beginning of the last decade were concerned about this cut on interest rates and did not want to attach future coupon payments to a high interest rate. Hence, they issued floating in order to be benefited from lower interest rates in the future.

Due to the short maturity in which corporate bonds are issued in Colombia, only 16% of them are long-term maturity bonds (greater than 12 years), making it not necessary to present principal payments to reduce the credit risk, making sinkable bonds not common. Additionally, there's a low probability of considerable big changes on borrowers' financial situation in these short periods; therefore, callable bonds are not common either. As a result of this, the type of bond preferred by Colombian companies is the traditional bullet bond, which makes a single principal payment at the maturity. These bonds represent 97% of the outstanding debt in the market. Finally, regarding the favorite currency to issue corporate bonds, the majority of the companies have chosen the local currency, the Colombian Peso. Approximately 99% of the outstanding amount in the market was issued in this currency. Even though Colombia has a unit of account similar to the Chilean Unidad de Fomento, which also is constantly adjusted to the inflation, corporations in general do not choose

to use of this currency. The UVR[26], as it is called according to its abbreviation in Spanish, is most common for sovereign bonds and mortgage loans.

Base on the characteristic mentioned in past sentences, it is possible to affirm that more than 80% of the Colombian corporate bond market is represented by bullet bonds with floating coupons, denominate in COP and maturity of 6 years. The lack of more diverse instruments in this market also represents a limitation to achieve diversification in bond portfolios; therefore, investors include only small fractions of these assets in their portfolios and prefer to invest in equity or sovereign debt, being the last one, the largest market in Colombia.

PERU

Peru has the smallest corporate bond market among MILA countries. The average amount issued a year during the last decade has barely achieved 1.2 billion USD. As was quote by Melvin Escudero, CEO of an investment company in Peru (Reyes, 2012):

> *"International interest rates are very low and Peru has become a shelter due to be safe and profitable … countries such as Peru, which have a sustainable growth, give security to investors that the principal repayments will be done at maturity… in Peru we are as United States during the 70's, when financial sector represented the 80% of companies financing"*

Peruvian corporate bond market has just begun a period of strong growing. It is possible to say that this country does not have only the smallest, but also the youngest and most potential market among MILA countries. Consequently, it is expected that Peru will go through the same situation that Colombia lived between 2008 and 2009, when the corporate bond market grew strongly.

Since 2008 corporations in Peru have become more interested on financing through bonds. However, the majority of debt has been issued in international markets instead of domestic market. The same reason that has attracted new international investors to invest in Peru, higher rates

[26] Real Value Unit (UVR) is a unit of account that is constantly adjusted to the inflation. It is the unit of measuring for some mortgage loans and government debt. Interest and principal payments are made in Colombian Pesos (COP) according to the daily value for the UVR determined by the Colombian central bank.

compare with international markets, is the motive that companies have decided to issue debt in foreign markets. The total amount issued by Peruvian companies (local and foreign markets) went from slightly over 1 billion USD in 2008 to more than 5.5 billion USD in 2012. This represented an increment of more than 400% in 4 years, but the amount issued in the local market, in the same period, only went from 1 billion USD to slightly over 1.5 billion USD, which only corresponded to an increment of 50%. The amount of outstanding debt in the Peruvian corporate bond market at the end of 2012 was only 8.3 billion USD. This value represented 4.7% of the GDP in 2012, which leads this market being not only the smallest of MILA countries not only in absolute terms but also in relative terms in respect of the GDP. The small size and the lack of new instruments every year in the domestic market has had a negative impact on trading volumes, which have decreased 64% since 2008 (Bolsa de Valores de Lima, 2013).

Table 9. Corporate Bond Market Evolution in Peru

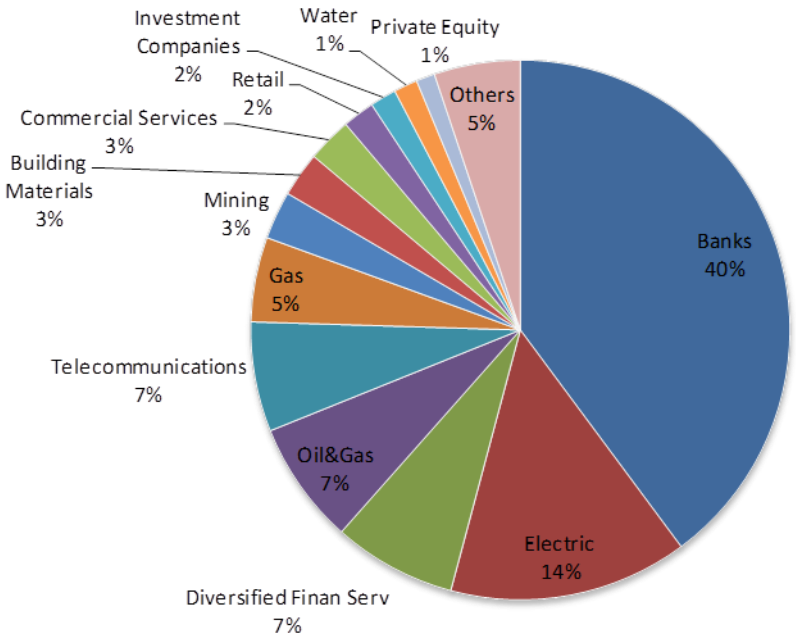
Year	Total issued USD (MM)	Max Issued USD (MM)	Min Issued USD (MM)	Avg Issued USD (MM)	Min Maturity Years	Max Maturity Years	Avg Maturity Years
2003	571	60	1.0	15.86	1.5	13.0	5.9
2004	750	122	0.9	15.31	1.0	25.0	5.9
2005	1,128	161	1.7	19.12	1.5	25.0	5.5
2006	1,786	455	0.9	18.23	1.2	19.5	5.2
2007	1,130	49	1.3	11.53	2.0	25.0	7.4
2008	1,070	52	1.9	15.07	1.0	25.0	6.8
2009	1,417	172	0.7	15.92	1.0	15.0	5.3
2010	850	100	1.1	15.75	1.0	20.0	6.3
2011	1,743	500	2.0	29.53	0.4	15.0	5.0
2012	1,548	100	0.5	27.15	1.0	30.0	8.4
Total	**11,993**	**500**	**0.5**	**17.90**	**0.4**	**30.0**	**6.2**

Source: Bloomberg

Corporate bond market in Peru is characterized by small issuances. Table 9 shows that during the last decade the average issuance size increased 71%, it went from 16 million USD in 2003 to 27 million USD in 2012. This increment is significantly low compare to Chile and Colombia; the former had an increment in the average size of more than 100% in the same period, even though Chilean market is a mature market and lower growth rates were expected. On the other hand, Colombia's market had an increment of almost 400% from 2003 to 2012, in fact, the issuance average size in Colombia and Peru were very similar by 2003, but at the end of 2012 Colombian market registered an average size of nearly 80 million USD, which was more than twice the average

in Peru. This characteristic of the Peruvian market confirms the potential growth that this market has for oncoming years according to analysts.

Figure 24. Peruvian Corporate Bond Market composition by Industry



Source: Bloomberg

Due to the small size of the Peruvian corporate bond market, the variety of industries that can be found among the issuers is limited. Financial corporations i.e. Banks, Diversified Financial Services, Investment Companies and Private Equity represent together more than 50% of the outstanding debt in the market as it is usual in emerging economies. The other big portion of this market is represented by Electric 14%, Oil 7%, Telecommunications 7% and Gas companies 5%, which are industries considerable correlated. This has led a complexity to diversify portfolios in this market.

Macroeconomic environment in Peru has been characterized for banks and companies interested on having portfolios in American dollars since the beginning of the 80's. This was motivated by a high inflation during this period, which caused that the local currency to lose value regarding other currencies, so banks and companies found in the USD a shelter for this situation. Since that, USD has become a crucial asset in investors' portfolios and it has been possible to develop a free and well organized market for this currency. Nowadays, USD is accepted by a wide range of commercial business and it is traded by individuals without any restriction. Even though during the

last decade the local currency has recovered the value lost during the 80's and 90's, Peruvian corporate debt market are still offering bonds in USD. In fact 39% of the outstanding debt in this market corresponds to bonds in USD. This allows, especially for international investors, to avoid the implicit risk of the Peruvian local currency.

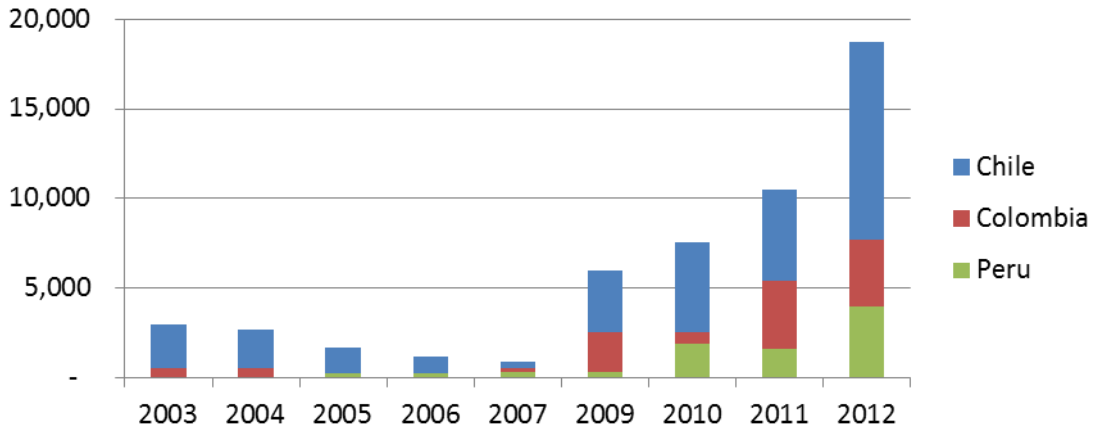
Although the average time from issue to maturity in this market is 6 years and only 33% of the outstanding debt has been issued as long-term debt (greater than 12 years), Peruvian companies have issued sinkable bonds recently, reaching a market share of 23% for this type of bonds. This feature reduces the risk and allows companies to issue debt at a lower rate. The rest of the market corresponds to 70% of bullet bonds and 7% of callable bonds. Additionally, the majority of corporate bonds in Peru are issued with fixed coupons; in fact, almost 85% of the debt remaining in this market at the end of 2012 corresponded to bonds with this type of coupons.

3.5.3 ISSUANCES OF LOCAL COMPANIES IN INTERNATIONAL MARKETS

There is a flow from domestic market to foreign markets and vice versa, depending on which of these markets offers the most attractive conditions to issue bonds. After the financial crisis in 2008, local companies in Chile, Colombia and Peru increased the use of international markets for financing. Before this year, only Chilean companies accessed these markets through bond issuances year by year, being the most active years 2003 and 2004, when the amount issued exceeded 2 billion USD. During the same period, Colombia and Peru used sporadically international markets, issuing amounts much lower than Chile. However, after 2008, when international markets started to recover and financial institutions faced the solvency and liquidity challenges established according to Basel III, issuances in international markets increased rapidly. Figure 25 illustrates how the total amount issued by local companies from countries members of MILA went form nothing in 2008, when international markets became weak in the United States, to almost 19 billion USD in 2012[27].

[27]See Appendix T for more details of the amount issued in foreign markets.

Figure 25. Issuances in international markets



Source: Bloomberg

Despite of corporate bond market development that MILA countries have shown in recent years, the largest local companies have sometimes preferred international markets and private placements for issuing bonds, especially in the United States. These markets allow companies to issue bonds at better yields, since demand and liquidity are much higher than the local markets. However, due to investors characteristics and requirements in these markets, issuances are required to be large sized; hence medium-sized companies cannot access these markets, which becomes the main challenge for the majority of the companies in the Latin American region and limited these markets to only few companies.

Today in Chile, COLDELCO[28] has become the main user of international markets. Due to the size of its issuances, it has decided to issue corporate bonds only in international markets, which guarantee the demand for these assets. Being the largest Chilean company, CODELCO had nearly 7 billion USD of outstanding debt in international markets at the end of 2012. The last issuances of this company had a minimum face value of 500 million USD, which requires a high demand in order to guarantee an attractive issue price for the borrower. In the case of Colombia, in recent years issuances in foreign markets have also become more popular for the largest companies. In 2011 and 2012 the amount issued in international markets almost reached 4 billion USD in each year. From this group it is important to highlight Ecopetrol and Bancolombia, the first the largest Oil company and the second the largest Bank in Colombia, these two enterprises have performed issuances that

[28] Short name for Corporacion Nacional del Cobre de Chile.

accounted for more than 1 billion USD in a single transaction. In Peru this situation is even more common, and the amount issued in foreign markets has been greater than the amount issued in the local one. In 2012, Peruvian companies issued almost 4 billion USD abroad, manly in the United States, while the amount issued in the local market only reached 1.5 billion USD[29].

3.6 FINANCIAL SYSTEMS ASSESTMENT

Financial systems are very different from each other; therefore, it is important to identify the current situation of the financial systems in MILA as part of the Pacific Alliance. In order to so, this study employs the benchmarking used by the World Bank (2013). This benchmarking is done over four characteristics that are measured separately for financial institutions and financial markets (both equity and bond markets). The Characteristics are depth, access, efficiency and stability which were explained in detail in Chapter I (Cihak, Demirgüç-Kunt, Feyen, & Levine, 2012).

3.6.1 FINANCIAL INSTITUTIONS

Regarding financial institutions on the Pacific Alliance, it is observed that only Chile is in most of the dimensions on the upper two quartiles over 205 economies in the world. Chile belongs to the top quartile with regards to depth and access of its financial institutions, while its efficiency ranks in the second quartile. Mexico ranks in top quartile with reference to Access and it is on the second quartile on efficacy, although the depthless and stability of the Mexican financial institutions ranks bottom quartile.

The financial institutions of Peru and Colombia are in the bottom two quartiles. It is worth mentioning that there is no available information about the access of the Colombian market. Not surprisingly, it seems to be a strong correlation between the financial institutions benchmark and the GDP per capita as was reviewed in the literature, which explains why Chile and Mexico are ahead of Colombia and Peru.

It is worth highlighting that none of the Pacific Alliance countries have stability above the two bottom quartiles and only Chile and Mexico have second top quartile efficient of financial institutions. The summary of this review is show in Table 10.

[29] See Appendix T

Table 10. Ranking financial institutions on the Pacific Alliance

	Depth	Access	Efficiency	Stability
Chile	4	4	3	1
Colombia	2	N/A	2	2
Mexico	1	4	3	1
Peru	2	2	1	2

* 4 = Top quartile (best), 1 = Bottom quartile (worst)

Source: The World Bank

3.6.2. FINANCIAL MARKETS

Chile's financial markets are still on the lead, with both depth and access characteristics being top quartile although its efficiency and stability are still second bottom quartile. According to this method, Peru has a financial market stability that is top quartile while its depth and access is second quartile. Mexico and Colombia are in the middle range but in access, where both are on bottom quartile. It is important to highlight that none of the Pacific Alliance financial markets are top quartile in efficiency, only Mexico is second top quartile and Peru is bottom quartile.

Although this study focus only on MILA in the next chapter, this benchmark already gives an indication that the financial markets of both MILA and the Pacific Alliance are in the middle range between second and third quartile. Both in the Pacific Alliance and MILA their depth is not bad in general, the access to financial markets on the two largest economies (Colombia and Mexico) of the Pacific Alliance is bottom quartile and the efficiency of MILA is on the bottom half in average. The summary of the current development on financial markets in the countries members of the Pacific Alliance is shown in Table 11.

Table 11. Ranking financial markets on the Pacific Alliance

	Depth	Access	Efficiency	Stability
Chile	4	4	2	2
Colombia	3	1	2	2
Mexico	2	1	3	3
Peru	3	3	1	4

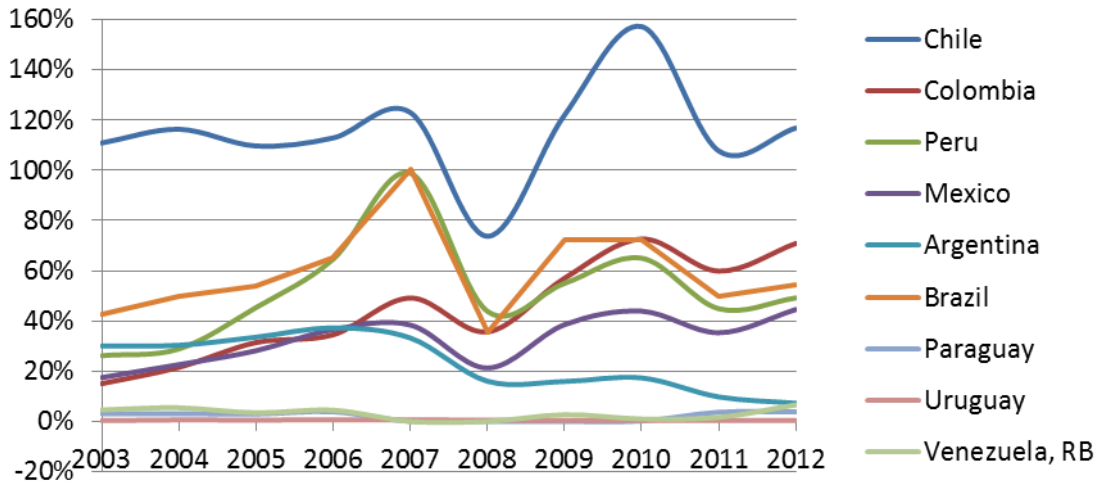
* 4 = Top quartile (best), 1 = Bottom quartile (worst)

Source: The World Bank

KEY FIGURES

As mentioned in Chapter I, the development of the financial market is usually measured as the market capitalization of the listed companies as a percentage of the GDP. Chile is the country with the highest ratio of 117%, followed by Colombia 71%, Brazil 55%, Peru 49% and Mexico 44%. Argentina had in 2003 30% which at that time, it was a higher ratio than Colombia, Mexico and Peru but in 2013 it is 7%.

Figure 26. Market Capitalization as % of GDP



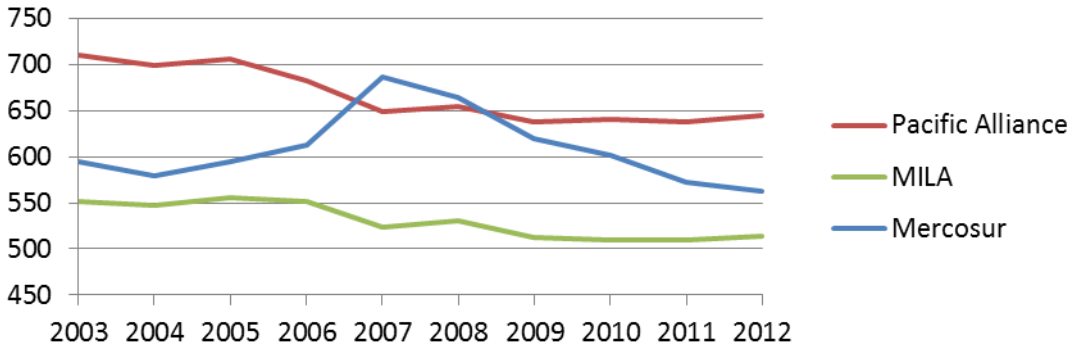
Source: World Bank

The analysis of the speed on which the financial markets have grown with respect to the economy shows interesting results. As it is displayed in Figure 26, Argentina's market capitalization as percentage of the overall economy had decreased heavily. During the period 2003-2010, before MILA started, it is noticeable that Brazil had in many years a high growth, but it flattens from 2011 and 2012. During those two years, the growth of market capitalization as a percentage of the GDP of Mexico and Peru has speeded. Colombia also shows the highest growth, but also it seems to be returning to the pre-crisis tendencies. Chile's market capitalization over GDP has remained overall constant during 2003 to 2012, not surprisingly as it was the country in the region with already the highest ratio.

The number of companies in MILA countries has remained stable during the period 2003 -2012, with a slight decrease in 2006. However the relative number of companies issuing in the stock exchange of MILA economies (and Pacific Alliance) increased with respect to Mercosur, mainly

due to a decrease of companies in the Mercosur trading block started with the financial crisis in 2007 and continue up to 2012.

Figure 27. Number of listed companies Mercosur, MILA and Pacific Alliance



Source: World Bank

The evolution of the domestic credit to private sector refers to financial resources provided to the private sector; it includes loans, purchases of non-equity securities, and trade credits and other accounts receivable (World Bank, 2013). It can be observed that in 2003, Chile's domestic credit was 75% and was larger than the next in line, being Uruguay with 43% followed by Brazil with 29% and Colombia with 25%, the rest of the countries were under 20%. During the period 2003 to 2012, Chile still remains with the highest ratio of domestic credit to the private sector as a percentage to the GDP but Brazil as a has grown the fastest and it is 68% by the end of 2012, followed by Colombia with 49% and Paraguay with 42%. The most of the remaining countries are by 2012 around 20% to 30% while Argentina is the only country under 20%.

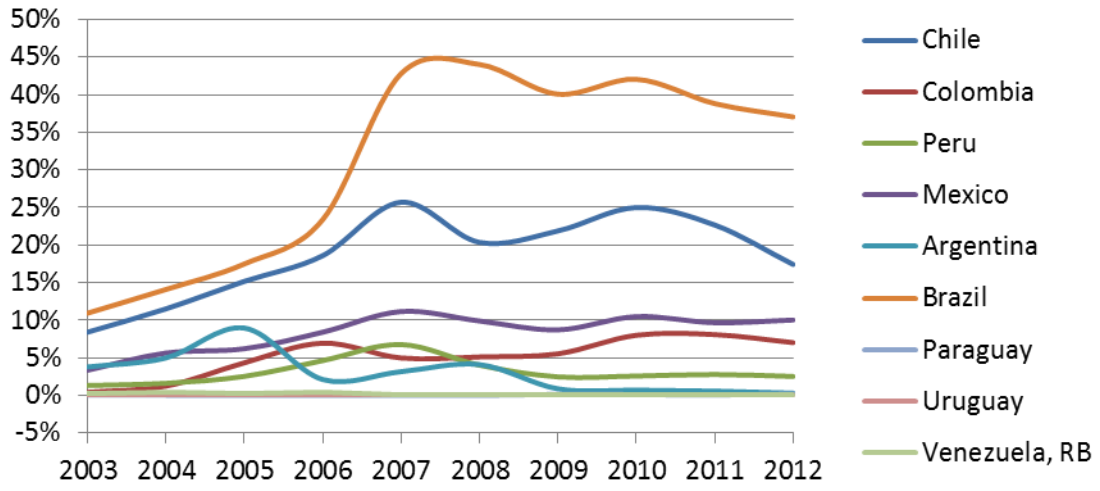
Table 12. Domestic credit to private sector as % of GDP

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Chile	75%	76%	76%	78%	84%	92%	71%	67%	70%	73%
Colombia	25%	27%	29%	33%	38%	38%	40%	44%	45%	49%
Peru	19%	17%	19%	17%	20%	25%	24%	24%	26%	27%
Mexico	16%	15%	17%	20%	22%	21%	23%	25%	26%	28%
Argentina	11%	10%	12%	13%	14%	14%	14%	15%	17%	19%
Brazil	29%	29%	31%	40%	48%	53%	49%	54%	61%	68%
Paraguay	15%	15%	15%	15%	18%	25%	30%	35%	38%	41%
Uruguay	43%	24%	22%	24%	23%	28%	21%	23%	24%	24%
Venezuela	9%	11%	13%	17%	23%	21%	24%	19%	20%	25%

Source: World Bank

The equity volume traded as a % of the GDP provides a good indication of the liquidity of the markets. In 2012, Brazil is the leading with approximately 37%, the second place is Chile with 17% third is Mexico with 10%, fourth is Colombia with 7% and fifth Peru with 3%. The rest of the countries, all of them in the Mercosur (Argentina, Paraguay, Uruguay and Venezuela) had a diminishing volume traded as a % of GDP. This indicator is also important due to it gives an indication over the ability to easily buy and sell securities. However, this indicator needs to be seen in conjunction with the market capitalization ratio to obtain a better judgment of the market. The World Bank highlights the importance of liquidity in financial markets, because in theory, liquid markets improve the allocation of capital and enhance prospects for long-term economic growth (World Bank, 2013).

Figure 28. Volume traded as % of GDP



Source: World Bank

The overall performance of the regional markets shows that Brazil has lead the region with an extensive grow during the 2002 to 2007 and afterwards a small decline in 2012 Brazil ratio reached 37%. Chile has been the second market and in 2012 it had 17% of stock traded over GPD value. The next three are the other members of the Pacific Alliance; Mexico, Colombia and Peru with 10%, 7% and 2.5% respectively. The rest of countries are by 2012 close to 0%. The graphic shows that after the crisis period Argentina's stock traded as a 2% of the GDP, which had a behavior similar to Peru and Colombia grew during 2002 to 2006 but plummeted and never fully recover. In particular, Colombia and Peru, during the 2011 and 2012 years, when MILA started, seem that the stock traded as part of the GDP remains unaffected while Brazil and Chile show a slight decrease.

When it is analyzed the different investment measurements of foreign investment such as: Foreign direct investment (investments from foreign groups over 10% of the controlling stocks), Portfolio equity investment (investments on equities not counted on foreign direct investment) no major tendency can be seen with respect to MILA. Chile obtains the highest foreign direct investment with 8% in 2012, Peru and Uruguay 5%, Colombia 4%. Equity investment is very volatile during the whole period, but there is a light tendency for growth during the 2011 and 2012 in MILA countries[30].

[30] See Appendix U

CHAPTER IV: FUTURE AND OPORTUNITIES FOR MILA

This chapter elaborated and analysis of the next step on the integration of financial markets through the MILA initiative. Additionally, it provides a series of recommendations that would help to potential this integrated market.

4.1 BOND MARKETS INTEGRATION

As it was mentioned before, the main objective of MILA is to create an international attractive market in order to compete with others markets of the region such as Brazil and even some others emerging markets around the world such as those located in Asia. This process started with the creation of the Pacific Alliance, which instead of being a closed integration, it has become a tool to promote the economic aperture among its members. Furthermore, Brazil has been criticized for being economically more closed than the countries in the Pacific Alliance and it has increased its protectionist policies, missing economic integrations with strong economies (Lema, 2013). This situation has benefited other integrations in the region, challenging the largest economy in Latin America.

Since 2012, stock exchanges in Chile, Colombia and Peru have been analyzing the potential integration of fixed income markets as the next stage of MILA. However, this process represents more challenges than the current integration of equity markets (Horta, 2012). Fixed income markets are more regulated than equity markets and they tend to have more particularities in each of these countries. Different regulations represent a limitation for integration of financial markets, since investors, regardless to their location, must be regulated by the same rules. Additionally, there are some limitations in the equity integration that must be solved before considering an integration of fixed income markets. Nowadays, all equity instruments from stock exchanges in Chile, Colombia and Peru can be traded by investors using the MILA platform regardless to the location of these investors. But public initial offers (IPOs) are limited to the local exchanges and, therefore, international investors have to wait until securities are in the secondary market in order to be able to buy or sell them through MILA.

4.1.1 DIVERSIFICATION OF THE RISK PREMIUM COMPONENTS

In this section, the characteristic of the hypothetical corporate debt market, after an integration of fixed income markets from Chile, Colombia and Peru, are analyzed. The main purpose is to identify

the most relevant features of this integration and how attractiveness for international investors would be created in order to facilitate the economic aperture of Chilean, Colombian and Peruvian markets. As it was discussed in the previous section, corporate debt markets in these three countries have different characteristics, e.g. industries, currencies, maturities, coupons, bond types. Therefore, being MILA corporate bond market the result of the mixture of these three markets, this new market will offer totally different opportunities of diversification to the investors of the region and international investors. The success of this integration will be determined by the variety of instruments that investors will find in this market, allowing them to achieve a higher diversification degree than investing directly in one of the markets that will be part of MILA corporate bond market. Additionally, liquidity in these markets and returns correlation will be important factors that must be considered in order to determine the market integration's impact on each individual market.

According to the outstanding amount in each of these markets at the end of 2012, Table 13 resumes the distribution that the corporate bond market in MILA would have, if this integration is accomplished.

Table 13. Expected corporate bond market in MILA

Year	Issuers	Debt Outstanding
Chile	138	68,445
Colombia	56	23,848
Peru	55	8,349
Total	**249**	**100,642**

Source: Bloomberg

The Integration of these markets will create a corporate debt market greater than 100 billion USD. Additionally, considering the positive analysts' expectations about issuances in Colombian and Peruvian market, this amount will reach 150 billion USD in the short-term and the number of corporations' accesses these markets is also expected to be higher than 250. Even though this value is still lower than the Brazilian corporate bond market, which was estimated to have around 250 USD billion of outstanding debt and 580 issuers at the end of 201; this will represent the opportunity to attract larger investors to Chile, Colombia and Peru, being MILA the second largest market in the region in terms of value and issuers.

COUNTRY SPECIFIC RISK

As mentioned in Chapter I, securities and issuers are affected by the political and economic environment of the country where they are located. Table 14 lists the different ratings of Chile, Colombia and Peru published by the most recognized credit rating agencies. All three countries have achieved a stable political and economic environment, which allowed them to be considered as investment grade countries. In fact, Chile is rated as a high investment grade country by three of the four agencies. Given that Chile would represent more than two-thirds of the outstanding debt in MILA's corporate bond market and the good grade of Colombia and Peru, its specific risk would be affected positive by the integration.

Table 14. MILA countries credit ratings

Country	Moody's	Standar & Poor's	Fitch	DBRS
Chile	Aa3	AA-	A+	AA(low)
Colombia	Baa3	BBB	BBB-	BBB
Peru	Baa2	BBB	BBB	BBB

Source: Bloomberg

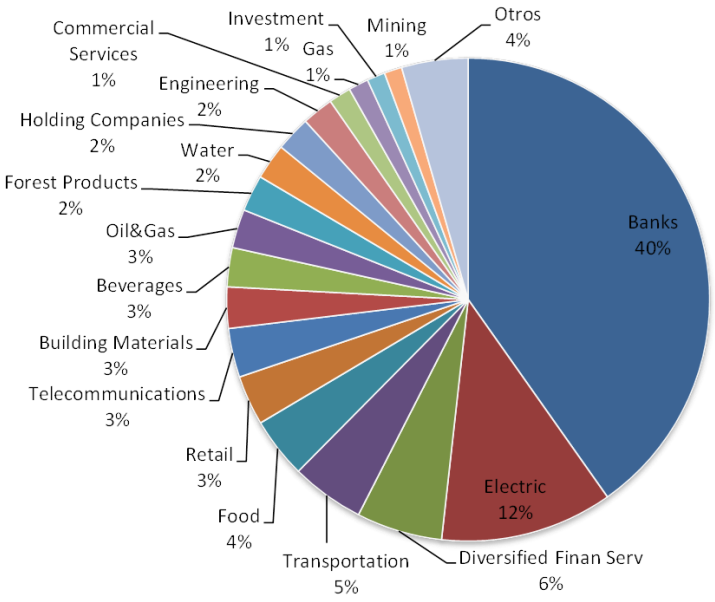
As it was stated by Bekaert (1995), credit ratings are crucial for a financial integration and these become one of the main barriers for emerging markets. Therefore, the financial integration of MILA countries with the world market has progressed during the last decade due to the positive ratings that MILA's countries have obtained.

Another factor which is crucial for the elimination of barriers is the inflation volatility. Bekaert (1995) states that since real returns are affected by the inflation, a high volatility increases the risk of all securities in the country. As investors care about the real return, they prefer to avoid this risk and the integration of the local market with the world market is negative affected. In Chapter II, the evolution of inflations is reviewed and it is clear that countries members of MILA have decrease considerable the inflation volatility and this has become the most important concern for the monetary policy as they recognized the importance of this variable for the long-term growth stability. This stability is also addressed by the IMF macroeconomic forecast, which is review in Chapter II, and the scenario for the next five years is positive for these countries.

INDUSTRY RISK

Regarding the diversification of this type of risk, the expected corporate debt market in MILA would offer a promising scenario. Figure 29 illustrates the composition by industry. Although financial corporations would contribute with 40%, the difference between the economies in Chile, Colombia and Peru would create a diverse corporate bond market with more than twelve industries, excluding financials, with a contribution greater than 2% of the market.

Figure 29. MILA corporate bond market expected composition by industry



Source: Bloomberg

This composition is crucial for the diversification offered by MILA. As it was reviewed in Chapter III in Table 5, the volatility of MILA is considerably lower than the best one of the country members. This is the result of the correlations between the different industries that represent the economies in these countries.

LIQUIDITY RISK

There are two components of the liquidity risk in this case. First, the market's liquidity and solvency, which determines how is the investor's ability of selling an asset when it is required. These are mainly determined by the market depth, which is the result of bid and ask prices and their spread. Second, the debt maturity, which forces corporations to repay the principal and decreases

the size of the market, therefore, this debt has to be substituted by new issuances (De Jong & Driessen, 2012).

As it was mentioned before, the dynamism of corporate debt markets across countries members of MILA varies. The liquidity and solvency in Chile have reached favorable levels for the market and the trading volume is considerable higher than the rest of the countries. This applies for almost all the issuers in this market, being the exception the smallest issuances, which are not traded frequently. On the other hand, Colombia and Peru face the biggest challenge regarding liquidity and solvency. Except for financial corporations and few large issuers, these markets are characterized by small issuances; therefore, the trading volume is low in these countries and a single transaction can have a considerable impact on the market price of a security. One of the main MILA's goals has been increased funds in markets of countries members; therefore, Colombia and Peru are expecting their markets to be boosted by this integration. This effect has been evidenced in other stock integrations in other regions; Pagano and Padilla (2005) found a statistically significant increase in the trading volume after the creation of Euronext (Copenhagen, Helsinki and Stockholm stock exchanges integration), this increase was on the order of 35% - 50% for the stock members of this market[31]. However, in the case of corporate debt markets in MILA countries, there would be risk that this integration could impact positively some markets and negatively the others. The fact that Chile has a notable advantage in financial markets would impact negatively markets in Colombia and Peru, if these two markets do not improve in key aspects such as size and maturity of issuances. Most of the securities issued in the Chilean market are more attractive for investors than those issued in Colombian and Peru, as a result of the lower risk that is generated by longer maturities and more liquid markets.

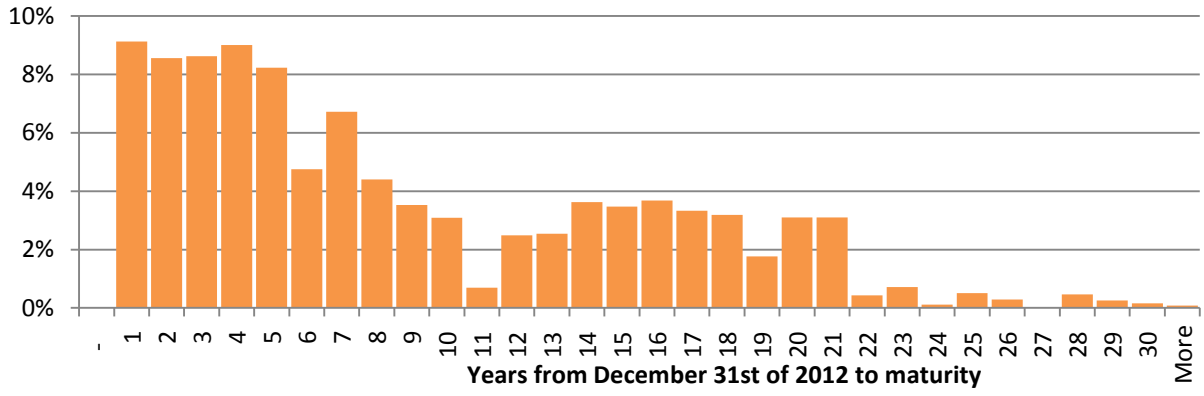
It is clear that governments in MILA countries, especially in Colombia and Peru, have to work on improving the liquidity on corporate debt markets; however, this also requires that corporations can use the bond market as financing source instead of traditional bank loans. The size of corporate bond markets, particularly in Colombia and Peru, are still considerable low. Colombian corporate debt market has a size respect to the GDP of 6.5% and the Peruvian one only reaches 4.7%, while this market in Chile has a size respect to the GDP of 25%. This represents a challenge for Colombia

[31] Appendix L. Volumen Traded Evolution Before and After Euronext

and Peru, which are required to promote the financing through this market. Analysts in general are expecting that in 2013 and 2014, corporate debt markets in these countries would be very active. Regarding Colombia, the government has approved an issuance for 1.5 billion USD of Ecopetrol, which is expected to be offered at the end of this year (Portafolio, 2013). The reduction of Colombian sovereign debt issuances that the government has implemented during 2013 is one of the reasons why analysts expect to increase the demand of corporate debt. Traditionally, the sovereign debt market in these countries has been more dynamic than corporate debt market; therefore, a reduction on issuance in the sovereign market motivates a switch of investors from this market to the corporate market, as investors need securities to allocate their capital. If the demand of Ecopetrol's bonds is as high as previous issuances from other issuers, it would motivate other corporations to use this mechanism of financing.

As mentioned in Chapter I, other factor, which is important for the liquidity risk, is the maturity of the debt outstanding in the market. As a result of the long maturities in which corporate bonds in Chile are issued and the high participation that the Chilean corporate debt market would have in MILA, the debt outstanding in this market would mature (in average) in almost nine years, which is a considerable high number in comparison with other emerging markets.

Figure 30. Distribution per maturity of debt outstanding for MILA corporate bond market



Source: Bloomberg

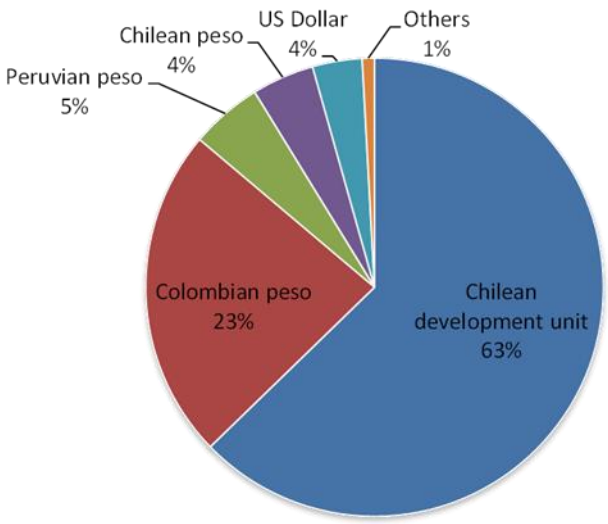
As Figure 30 shows, the maturity of the debt outstanding at the end of 2012 in MILA corporate bond markets is well-distributed from 1 to 21 years, being the short term influenced by Colombia and Peru, where issuance of 5 years or less predominates these markets. What can also be observed

in this graph is that more than 30% of the debt outstanding at the end of 2012 matures in more than 10 years, which has a positive impact on the liquidity of the market.

EXCHANGE RATE RISK

The currency factor in MILA countries is very particular for each country. As it was described in Chapter III, Colombian corporations have a preference for the local currency. In Peru, although issuances in local currency represent more than the half of the corporate debt market, the outstanding debt in USD reached almost 40% at the end of 2012 due to the dollarization of the economy in this country. On the other hand, in Chile the market is dominated by the Chilean development unit, which is a specialized unit of value. Figure 31 illustrates the distribution that MILA corporate debt market would have, according to the debt outstanding in each market at the end of 2012.

Figure 31. MILA corporate bond market expected composition by currency



Source: Bloomberg

Being Chile the country with the largest corporate bond market among MILA countries, the predominated currency in MILA would be the prevailing currency in this market. Chile corporate bonds are not issued in the regular local currency, the Chilean Development Unit is used by most of the corporations instead, in order to offer to investors a protection against inflation. This currency would represent almost two-thirds of the MILA corporate bond market. Consequently, having Colombia the second largest corporate bond market, almost one-quarter of the debt outstanding

would be denominated in Colombian peso. Other currencies such as Peruvian peso, Chilean peso and American dollar would represent 5% or less in this market.

Despite the obvious benefits from diversification that the corporate debt market in MILA would offer, the fact that every country has a different currency also creates limitations for the international integration of these markets. According to Bekaert (1995), controls on the exchange rate have an effective impact on the creations of barriers for the market's internationalization in emerging countries. As it was reviewed in Chapter II, countries in the Pacific Alliance control the volatility of the exchange rate in order to ensure prices' stability and achieve the target inflation. This means that each country can independently control the local currency market, which has a negative impact on the integration with the world and other markets in MILA.

OTHER CHARACTERISTICS

During the reviewed of the corporate bond markets in Chapter III, it was observed that securities' characteristics in MILA countries are considerably different. For example, Chile is characterized by fixed coupon bonds, which represent 98% of the debt outstanding. On the other hand, Colombian market is dominated by floating coupons, which correspond to 86% of the market. In the same way, there are more characteristics of this markets that contribute to create a more diverse market, becoming more attractive for international investors and attracting new direct foreign investment[32].

4.1.2 LENDING RATES CORRELATIONS

The Pacific Alliance has already integrated equity markets through MILA. Correlations of these markets and other Latin American markets, as mentioned in Chapter III, have a trend that is determined by the degree of development (on the characteristics of depth, access, efficiency and stability) of its financial markets. However, being debt an important source of external financing, it is important to analyze the correlations in these markets across these countries, which tend to be different to the ones for equity markets. Since the price of the bonds is determined by interest rates, these become the main variable of analysis in this session. In order to do so, this study uses the lending interest rate publicized by the World Bank as a reference of the corporate interest rate[33].

[32] See Appendix V

[33] See Appendix W

This is possible, because it is expected that interest rates in economies tend to move together and therefore for the purpose of correlations analysis the trend of these two rates are considerably similar. Table 15 shows the correlation of the lending rate across the main Latin American economies and with United States, which in this case is used as a benchmark to measure the correlation with the world economic. Additionally, countries are grouped in the economic blocks that have been discussed before in this paper, Pacific Alliance and Mercosur, in order to observer the difference between these two groups.

Table 15. Lending rates correlation selected Latin America economies

		Pacific Alliance				Mercosur				
		PER	MEX	COL	CHI	ARG	BRA	VEN	PAR	URU
Pacific Alliance	PER		0.9	0.7	0.1	-0.2	0.5	0.2	0.0	0.1
	MEX	0.9		0.7	0.0	-0.4	0.5	-0.1	0.0	0.0
	COL	0.7	0.7		0.4	0.2	0.5	0.4	0.2	0.3
	CHI	0.1	0.0	0.4		0.5	-0.3	0.0	-0.4	-0.3
Mercosur	ARG	-0.2	-0.4	0.2	0.5		0.0	0.7	0.3	0.4
	BRA	0.5	0.5	0.5	-0.3	0.0		0.6	0.8	0.8
	VEN	0.2	-0.1	0.4	0.0	0.7	0.6		0.6	0.8
	PAR	0.0	0.0	0.2	-0.4	0.3	0.8	0.6		1.0
	URU	0.1	0.0	0.3	-0.3	0.4	0.8	0.8	1.0	
	USA	**0.7**	**0.6**	**0.4**	**0.1**	**-0.4**	**0.2**	**-0.3**	**-0.2**	**-0.2**

Source: World Bank

Regarding the correlation between the countries, there are two clear aspects to be highlighted on this table. First, it is clearly observed that countries in the Pacific Alliance, with exception of Chile are high correlated, and countries in Mercosur, with exception of Argentina, are also high correlated. This is represented by the two green areas on the top-left (Pacific Alliance) and the bottom-right (Mercosur). Second, Brazil as the largest economy in the region is positive correlated with almost all the countries, the only exception being Chile and Argentina. Evidently, Brazil's correlation is higher with those countries members of Mercosur, but the correlation with Colombia, Mexico and Peru is still positive (0.5). On the other hand, Chile and Argentina show and different trend to the rest. Meanwhile these two countries experienced a general increment of interest rates during the period 2003 – 2012; the rest of Latin America underwent a general reduction of these rates during the same period. As a result, these two countries are positive correlated each other, but low or negative correlated with the rest of the region.

Finally, regarding the correlation with United States' lending interest rate, countries in the Pacific Alliance are positive correlated with this country, standing out Peru (0.7) and Mexico (0.6). Contrary, countries in Mercosur, with the exception of Brazil, are negative correlated with United States. Despite Brazil has a positive correlation with United States, this is still lower much lower than the average in the Pacific Alliance.

4.3 POTENTIAL PILLARS FOR THE DEVELOPMENT OF MILA

As it was discussed before, one of the main objectives of MILA is to compete for investment by pooling liquidity and deepening financial markets against other markets on the region. The progression of the economic market depends on the scale of the stock market. Bernal and Camargo (2011) describe some steps that are required in order to ensure a further scale growth. Although these are mentioned in separate points, they are dependable in each other and need to be seen as a part of a same initiative.

4.3.1 INCREASE AND FACILITATE ACCESS TO FINANCIAL MARKETS.

The focus is the upper middle class and upper class, since they possess disposable income. MILA has around 100 million people. Currently Chile is a high level income, while Peru and Colombia are high middle income according to the World Bank. All three countries have been reducing the poverty levels and increasing the middle class.

In order to increase the access of persons to the stock market, it is required a capacitation and training to the general population in order for them to know and understand the basics of the financial markets. Some regional stock exchange, such as Sao Paulo, provides a homepage for natural persons to access the stock exchange and as well as visit it.

4.3.2 DEVELOPMENT OF NEW FINANCIAL INSTRUMENTS

New financial, "out of the shelf" financial products are required in order to facilitate persons to access the stock markets and manage the risk and returns better. New financial products also need to focus on reducing the administrative transactions of participating across stock exchanges (Bernal & Camargo, 2011).

In Chapter I, it was presented the different risks such as credit and default risk, liquidity risk, industry or business risk, country-specific risk and exchange rate risk. It is discussed how MILA can further reduce them on the ETF section.

In addition, the stock exchange needs to look for reducing the transaction cost of investing across borders with MILA. In the current situation if a Colombian investor would like to invest in Chile and Peru, it would have to pay the following transactions costs: commission to the stock brokers, commissions to currency brokers, financial transactions taxes; all of these transactions cost will have a negative effect on the final returns and therefore decision to invest.

EXCHANGE TRADED FUNDS

The Exchange Traded Funds or ETF started in 1993. The first created ETF was the SPDR 500, also known as spider. An ETF is an instrument that represents a portfolio of assets. It usually represents an index, an industry sector or commodities. It is understood that an ETF is a portfolio that is traded as a share in the stock market. In the case of the SPDR 500, it replicates the behavior of the index S&P 500. (Bernal & Camargo, 2011).

The difference between an ETF and a portfolio is the price is not determined by the value of its underlying assets but rather for the trades between Supply and Demand that the ETF participates. This means that although the ETF tries to replicate an index or a market, it does not always replicate them fully. This offers a possibility of arbitrage, which is elaborated in the following points.

In longer time horizons, the performance between the ETF, the index and the underline asset seem to converge. It is in that context that the creation of the following ETF under MILA markets[34] is suggested. In Chapter I, it was discussed five risk premium components, through the ETF mentioned below, it is believed that is possible to reduce at least Credit and Default Risk, Exchange Rate Risk and Country Specific Risk.

[34] See Appendix X. ETFs performance

INDEX ETF

It is the most known ETF that tries to replicate the behavior of an index. The most know is the SPDR 500. This instrument would try to replicate the behavior for the MILA S&P40 index.

COMMODITY ETF

It tries to replicate the behavior of a particular product, being a crops, natural resources etc. it can be the actual commodity or accompanies that produces that raw material/commodity. This is particularly relevant for the participants of MILA market as all are producers/exporters of raw materials, as it is seen on the previous chapters; there are several companies across the different MILA countries that are engaged on Mining, Oil and Gas and Agricultural activities.

Large investors would benefit from this kind of instruments as it would give them an opportunity to hedge themselves against commodities (like oil) increase.

CURRENCY ETF

The best known ETF on currencies was created on 2009, which joined in a portfolio of currency exchanges between the United States Dollars and the other participants of G-10 (Bernal & Camargo, 2011). As MILA will be using three different currencies (COP, CLP and PEN) an instrument for currency ETF will be useful for hedging currency risks.

SECTOR ETF

It is created to replicate the behavior of a particular sector of the economy, such as the Car Industry ETF, which replicates the car industry in USA. It is created based on the shares of that sector or to the index that has been elaborated on mentioned sector.

One of the largest advantages from MILA is that the number of companies to which one can have access increases to more than 560 companies and diversified across countries, but it would be possible to maximize from utilizing ETF on industries such as financial sector, retail, mining, oil and food production and trade.

BENEFITS OF THE ETFS

Within MILA there are few benefits that an ETF will provide:

- Diversification. It is one stop shop, which provides a portfolio of companies.

- Arbitrage: since ETF price is settled by the market forces of sale and purchase of the ETF the price can be different than the index and the underlying stocks. So if the price of the ETF is above the index or the underlying stocks, the investor can sale the ETF and buy the stocks that compose it and earn the difference.
- Simplification. With an ETF of commodities or sectors, it can offer the opportunity to simplify the information gathering for the investor, as by pooling a large number of companies of the same type; it puts more focus on the macro or industry general effects than the company specific.

4.3.3 INTEGRATE AND INTERNATIONALIZE MILA.

In order for MILA to be successful it requires that the countries that are part of it, integrates in other dimensions. MILA is the stock integration of three original signatories of the Pacific Alliance, however as mentioned in the previous chapters, the Pacific Alliance also aims at integration of international trade via tariff reduction and free mobility of persons through visa waivers.

The integration of trade and mobility of persons deepens the economic integration as goods, services and labor can be move in the region and enables to see MILA as a single economic area.

DEPOSITARY RECEIPTS

The ADR stands for American Depositary Receipt. They are certificates issued in the United States to represents shares of a foreign company (Brealey, Myers, & Allen, 2011). Since the ADRs belong to companies outside the United States, they are affected by different factors than American companies; therefore, they offer a potential diversification.

The study done by Kabir, Hassan, and Maroney (2011) shows an evolution on the behavior and impacts of ADRs. During the nineties, it shows that during the early nineties, if investor trading in the United States wanted to diversify using ADRs was not enough, as they would require country portfolios as well. However as ADR from emerging markets proliferate and more ADRs are issued in the American Exchanges, the ADRs become a substitute to country.

It is important to mention that in the study done by Kabir, Hassan, and Maroney (2011), the substitutability between ADRs and countries is not affected from which region the ADRs come from but it is possible in countries with higher number of ADRs

Finally, they also find that diversification using ADRs is affected across countries over time. For example, there is higher diversification gain on holding over more than 4 months period of ADRs from some countries like France, Italy, Spain, Germany, Ireland, Switzerland, and Brazil while for ADRs from Australia, Japan, Netherlands, Sweden, United Kingdom, New Zealand, Mexico, and Chile U.S. investors can get benefits at a very short-term period.

In MILA context, Depositary Receipts can be used as a way for trading in MILA market for Latin American companies based in non-MILA/Pacific alliance countries. This will offer the external companies an extra liquidity over their return as well as new sources of financing. For MILA markets, it offers the further diversification possibilities.

4.3.4 POTENTIAL REGULATION CHANGES

As it was mentioned before, the regulation on MILA still needs development. MILA can follow similar steps as Euronext. Euronext is the second largest exchange in Europe based in Paris with subsidiaries in Belgium, France, Netherlands, Portugal and the United Kingdom. It was formed in September 2000. Similar as MILA it started with a technological integration that by 2002 all participants were able to access all securities listed in Euronext.

Euronext regulators worked towards harmonizing rules and regulations. The Euronext has two rulebooks: Rulebook I contains harmonized rules that are contractual agreements among the market participants of Euronext, and Rulebook II contains the remaining rules of the individual markets that have not been harmonized (Pownall, Vulcheva, & Wang, 2011). Following the steps from Euronext, MILA can also create two rulebooks, the first one looking to first gradually harmonize membership rules, trading rules, and enforcement rules. Later to development of a common set of rules of listing qualifications and disclosure requirements and reporting requirements (Pownall, Vulcheva, & Wang, 2011). As well new companies that would like to trade its equities on MILA would need to comply with the unified MILA requirements from Rulebook I. After admission, it must be compliant with the financial reporting requirements of the home country. It is worth noting that according to Pownall, Vulcheva and Wang (2011), the process was gradual and took several years.

DISCUSSION

The implications of financial systems on the real economy are visible through the IS LM model explained in Chapter I. The IS LM model concludes that a lower cost of financing will translate to a higher economic activity. As it was reviewed in the literature, Stulz´s (1999) main findings suggest the importance of the financial integration process on the reduction of cost of capital, as a result of the risk sharing across economies. The need of developing financial markets of MILA's countries is complementary to a strong banking system. As mentioned in Chapter I, as country's economy becomes more advanced, the financial markets starts to gain more importance and they are also a diversification alternative from a financing point of view, specially important when financial institutions are in crisis.

In Chapter II, it was mentioned how MILA's countries are middle level income and for regional standards, their economies are open. The comparison on Chapter II with the largest emerging markets, the BRIC, shows that MILA countries will continue growing faster than Russia and Brazil, in both real GDP and real GPD per capita and, the real GDP per capita of MILA economies will remain above India and China. In a way, MILA is a tool for its participants to avoid a situation where an underdeveloped financial market could hindrance their economic development. This is especially important due to the current transition that these economies are facing. Chilean officials state that in 10 years Chile can reach the development, while Colombia and Peru are among the highest growth countries and heading many of the different ranking for emerging economies. In this sense, it is important to remove any potential obstacles for their development.

There are four dimensions of the financial markets, financial depth, financial access inclusion, financial efficiency, and financial stability. Chile is above the average performance on most of the dimensions and, Peru and Colombia are in the middle range out of 205 economies. Although the benefits of financial integration have been recognized, MILA is still in an early stage and there are many aspects that will require to be developed in order to have an impact on the development of financial markets.

The financial depth of Chile is the highest on the region and is on the top quartile, however, Colombia and Peru are on the 2nd bottom quartile. Considering the significant amount of corporate bonds issued in foreign exchanges, as it was seen in Chapter III, the potential to improve financial depth is considerable. Also, the interest rates of the lending market, as explained in Chapter IV, for

Colombia and Peru are much related to the world markets. Due to this, local markets will offer competitive rates as international markets do, if they achieve a good level of development. Issuing in local markets can also protect local companies from the exchange rate risk mentioned in Chapter I, as it will reduce the need for companies to issue bonds abroad.

The financial access for the companies is also related to transaction cost and agency costs, as seen in Chapter III, Peru and Colombia access to the financial markets is on the bottom quartile. To access the financial markets it is necessary to diminish agency and transactions cost, which are explained in Chapter I. Bekaert (1995) and Sutherland (1996) emphasize on the importance of homogenization on the elimination transaction costs and highlight the main causes of barriers for integrations. Despite the development that MILA represents for the local financial markets, some of the benefits of this integration have not been transferred to corporations due to the limitations on initial public offers. This is important, since access to financial markets enables the market forces to work and distribute the resources of society to different sectors, activities and participants.

The financial efficiency in all MILA countries is on the bottom or second to bottom quartile. With respect to Brazil, the volume traded in each MILA country individually is low as is the number of companies and securities listed on the financial markets. However, as a block, the number of entities issuing in financial markets is larger than the Mercosur. A good method to develop this efficiency is via further financial instruments such as fixed income securities and other derivatives as explained in Chapter IV. Additionally, expanding its operations to Mexico, which is part of the Pacific Alliance, and enabling companies of other countries to use the MILA platform to negotiate their securities would have a positive impact on the efficiency of MILA.

Debt securities issued in international markets by companies from MILA countries have increased during the last couple of years due to the signs of recovery that these markets have shown. These instruments would contribute to improve the size and liquidity of the local markets. However, it is necessary to create stability in local markets and offer competitive interest rates for borrowers in order to attract theses issuers. With the only exception of Chile, the fixed income markets in MILA countries are relatively small with respect to the GDP since there is no culture on corporate bonds in the Colombian and Peruvian companies, this area represent a potential for the development of the market. As a result of difference between the markets maturity, the benefits for Colombia and Peru are clear but Chile, with a more developed market, will not receive the same benefits in the short term.

The financial stability is also related to the agency cost and it will require standard rules, as it was mentioned before. A positive outcome of MILA review in Chapter III with the CAPM model is that MILA provides opportunities of diversification that improve the return/risk relationship, offering more stable performance than its members individually. This is a key component of the financial stability and, although that there are similar components across the overall composition of the economy (exports and equity markets), there is also certain degree of diversity and complementarity across the larger companies that participate. MILA will provide a better stability as a whole market and for individual securities it will provide a higher demand as investors are able to absorb more risk in their portfolios that they later can diversify with other securities, therefore, it will enable a reduction of the interest rate on the overall financial system, which will be translated, as explained with LM-IS model, to the real economy as lower financing costs, driving a higher input. However, this assumes that the different participants on the markets are efficient and have full information; otherwise resources will not be allocated optimally. Therefore, advances and homogenization on regulation and reporting standards are a key area to develop further. As occurred with Euronext, this process takes several years and it represents the major challenge for MILA. Previous attempts of integrations and alliances have failed in the region, although the higher degree of economic openness, the fast advances on trade liberalization and movement of persons in the Pacific Alliance are indications of change towards the right direction.

Financial systems have direct relation with business profitability, as it was concluded by Mallick and Yang (2011); companies with a high financial sourcing through equity markets have a higher profitability; companies with high component of debt securities do not have a significant difference on its profitability while companies with a high component of bank loans have a lower profitability and productivity. This is true not only for the transactions cost but also as a large tool to reduce agency cost. Financial Markets, both equity and debt securities, demand a higher discipline and provides better tools to reduce agency cost.

The complete economic benefit of having an integrated market in Latin America cannot be achieved until the integration of corporate debt markets takes place. Equity investment is riskier than investing in debt securities and the corporations in these emerging countries already have implicit risks making financing through equity costly for non-large companies, which are the characteristic of the majority of local companies in the region. Therefore, having an integrated debt market will benefit more players in the economy and will have a greater impact on the economic

growth of the integrated countries. Additionally, theory suggests that financing through non-bank debt will not have a significant negative impact on company's performance as bank debt does.

Although the three MILA countries during the 1980s (Chile) and 1990 (Peru and Colombia) had orthodox and prudent economic policies, the reasons the financial crisis did not have a more damaging effect on their financial markets, because they were not developed enough. MILA's economies first step is to have policies to enable them to mature the financial markets, for example with some of the instruments discussed in Chapter IV, once a reasonable maturity is achieved; regulation needs to become the main focus.

CONCLUSION

This study reviewed the performance and the effect of the Latin American Integrated Market (MILA) on the context of financial development in the Latin America. The alignment of economic policies is crucial for the integration of international markets. Latin America has not been the exception, and after 2005 when it is possible to observe a convergence on topics such as inflation and interest rate between the countries than integrate MILA, the correlation between their equity markets increased considerable. This also had a positive effect on the correlation of these markets with the world market, which also started to increase after this period. However, this situation is not something exclusive for countries of MILA, since this increase in correlations also is observed in other countries in the region with a similar development on financial markets.

On the other hand, the creation of an integrated market such as MILA, which allows stocks trading beyond geographical borders, has not impacted considerably the development of financial markets since there is no conclusive evidence that key ratios to measure this development have changed significantly different previous trend of these economies. The reason of this is clear; the creation of a common transactional platform represent only the 20% of the possible integration, the other 80% is limited by barriers created by the following aspects:

- The regulation in financial markets is considerable different between the countries and the existence of more than one regulator in each market difficult a possible alignment in the short term.
- The controls on the exchange rate, which each country applies independently, have different criteria. This creates that exchange rates fluctuate dissimilar and therefore a barrier for deeper financial integration between these countries is also generated.

The Pacific Alliance economies are in a transition phase. The World Bank classifies Chile as a high income country, the rest are classified as upper middle income countries. In this transition phase, they will require a further development of the financial systems as it is seen that as economies develops the need for a more solid financial market becomes more important. The transition from a bank dominated financing to a financial system with a more accessible and efficient financial market assists private companies twofold: first, it is an alternative source of finance and second, it forces more discipline and profitability over the real sector. Therefore, MILA is a key element for the long term development of its economies, and although no impact is appreciable yet, it is

expected that a complete integration of financial markets, including debt securities, will remove barriers to access these markets as they gain more importance as source of financing for local companies. In order to achieve a truly deep financial integration and, learning from several fail Latin American integrations, a commitment from all the governments and alignment on legislation will be needed.

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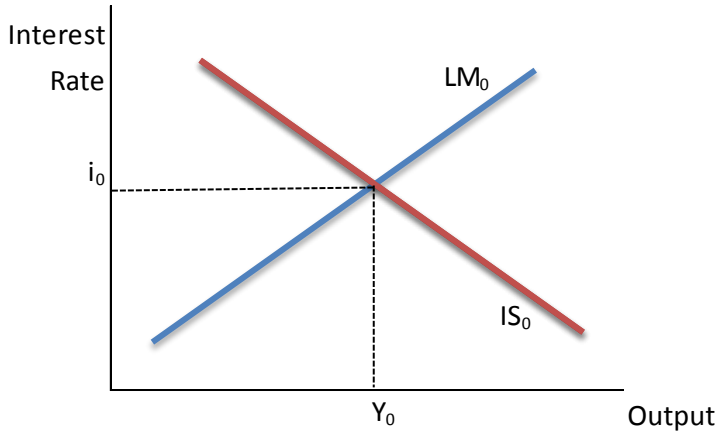
APPENDIXES

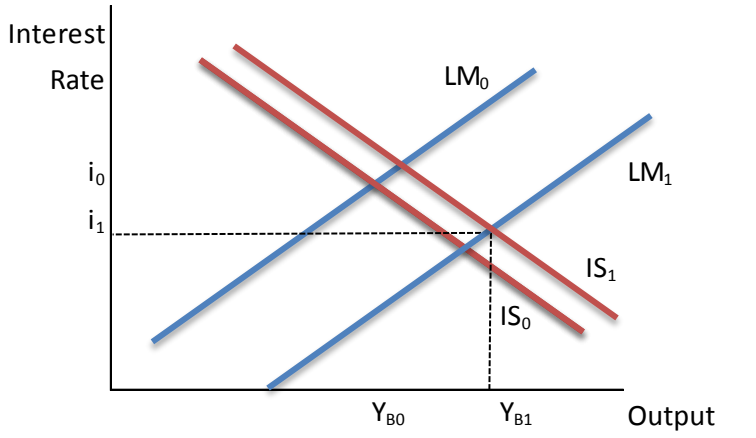
APPENDIX A. CREDIT AGENCIES' RATINGS

Moody's	Standar & Poor's	Fitch	DBRS	Risk
Aaa	AAA	AAA	AAA	Prime
Aa1	AA+	AA+	AA(high)	High investment grade
Aa2	AA	AA	AA	
Aa3	AA-	AA-	AA(low)	
A1	A+	A+	A(high)	Upper medium investment grade
A2	A	A	A	
A3	A-	A-	A(low)	
Baa1	BBB+	BBB+	BBB(high)	Lower medium investment grade
Baa2	BBB	BBB	BBB	
Baa3	BBB-	BBB-	BBB(low)	
Ba1	BB+	BB+	BB(high)	Non-investment grade speculative
Ba2	BB	BB	BB	
Ba3	BB-	BB-	BB(low)	
B1	B+	B+	B(high)	Highly speculative
B2	B	B	B	
B3	B-	B-	B(low)	
Caa1	CCC+	CCC	CCC(high)	Substantial risks
Caa2	CCC		CCC	
Caa3	CCC-		CCC(low)	
Ca	CC		CC(high)	Extremely speculative
			CC	
			CC(low)	
	C		C(high)	
			C	
			C(low)	
C	D	DDD	D	Default
		DD		
		D		

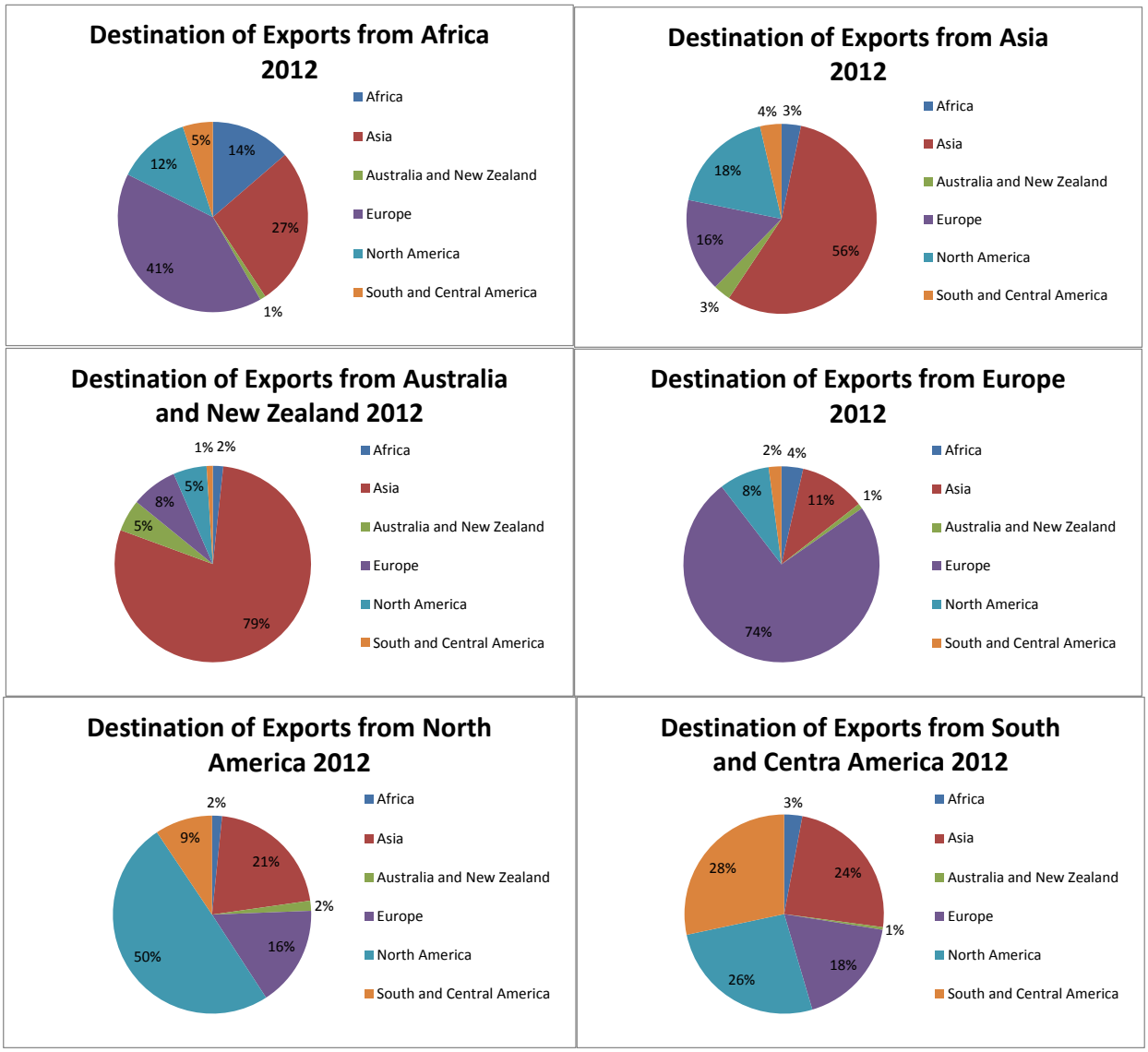
Initial IS-LM equilibrium



New IS-LM equilibrium



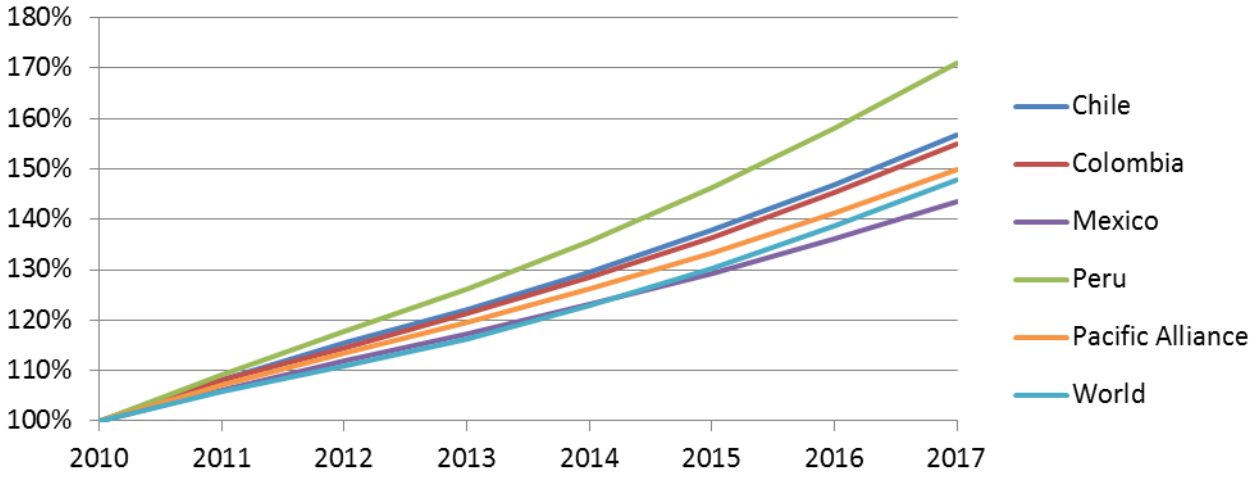
APPENDIX C. DESTINATION OF EXPORTS BY REGION 2012



Source: World Trade Organization.

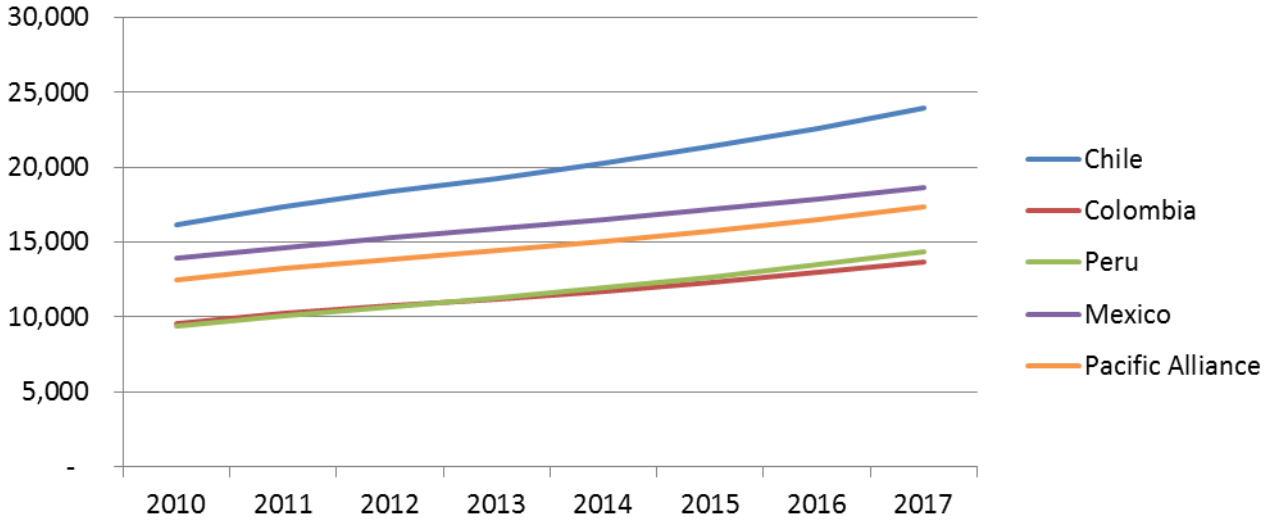
APPENDIX D. MACROECONOMIC FIGURES THE PACIFIC ALLIANCE COUNTRIES VERSUS BRICS

Gross Domestic Product Index 2010-2017 (2010 = 100%)



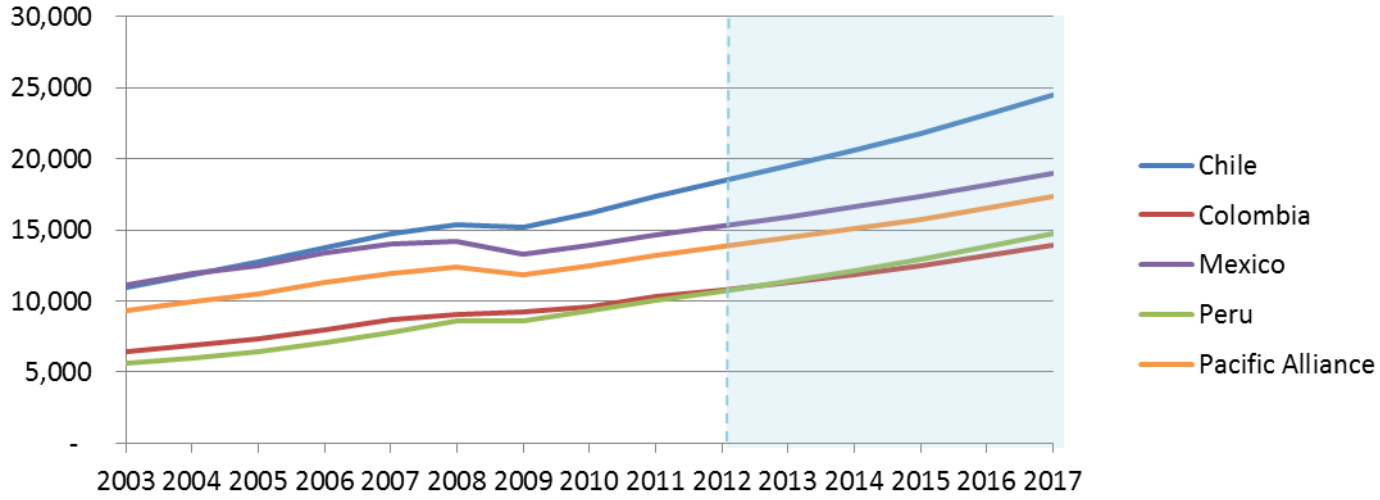
Source IMF

Gross Domestic Product Per Capita at PPP (USD)



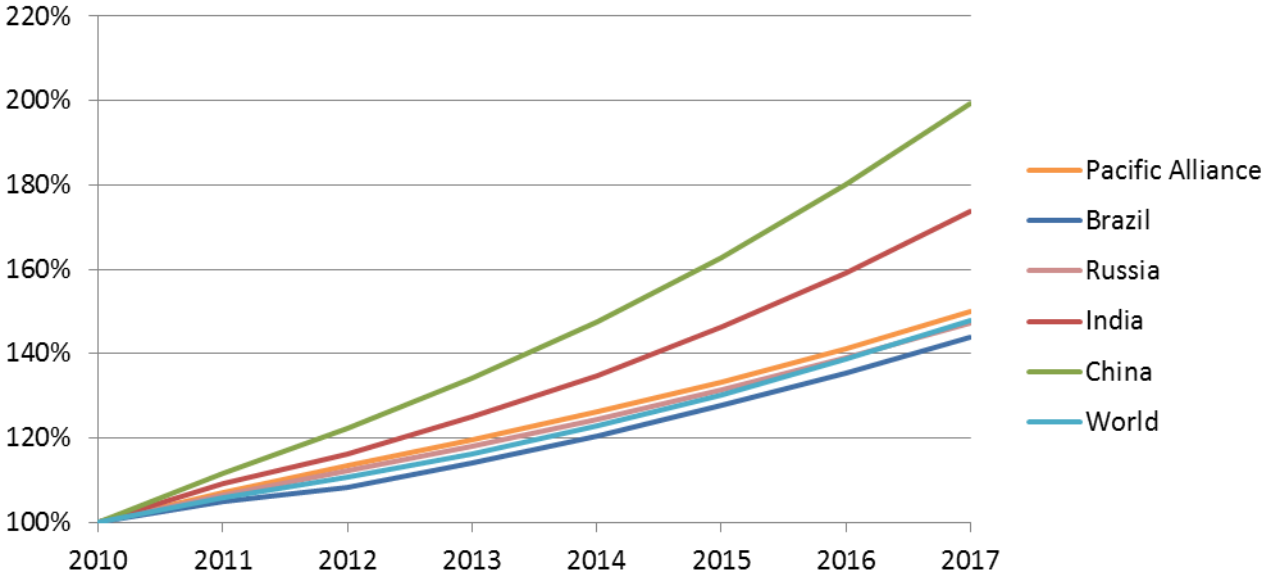
Source IMF

Gross Domestic Product Per Capita 2010-2017 (2010 = 100%)



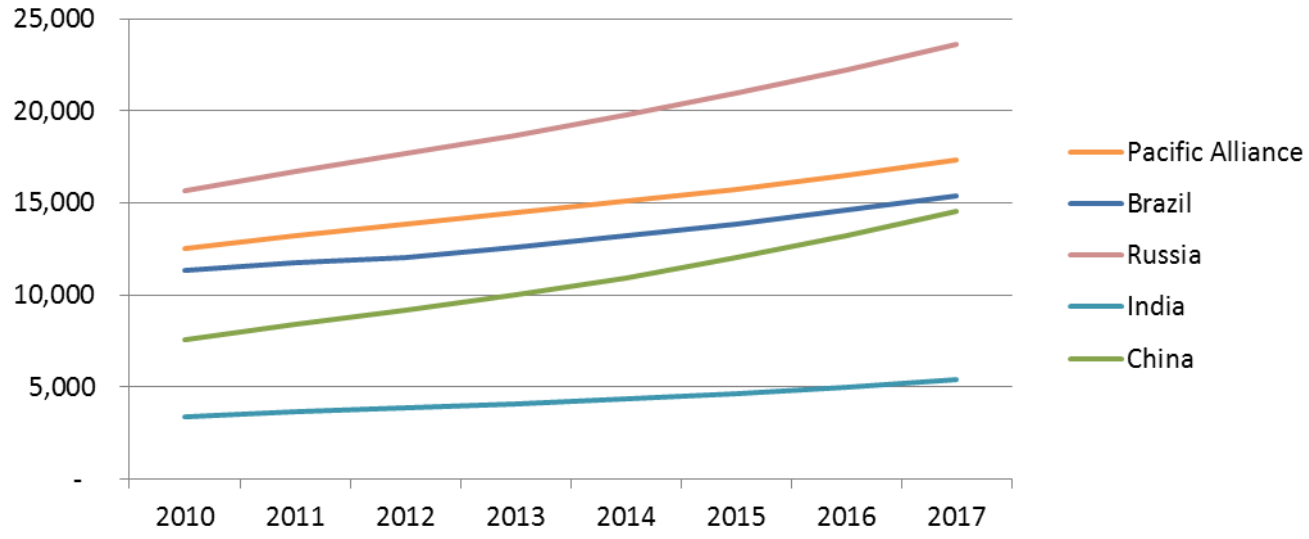
Source IMF

Gross Domestic Product 2010-2017 (2010 = 100%)



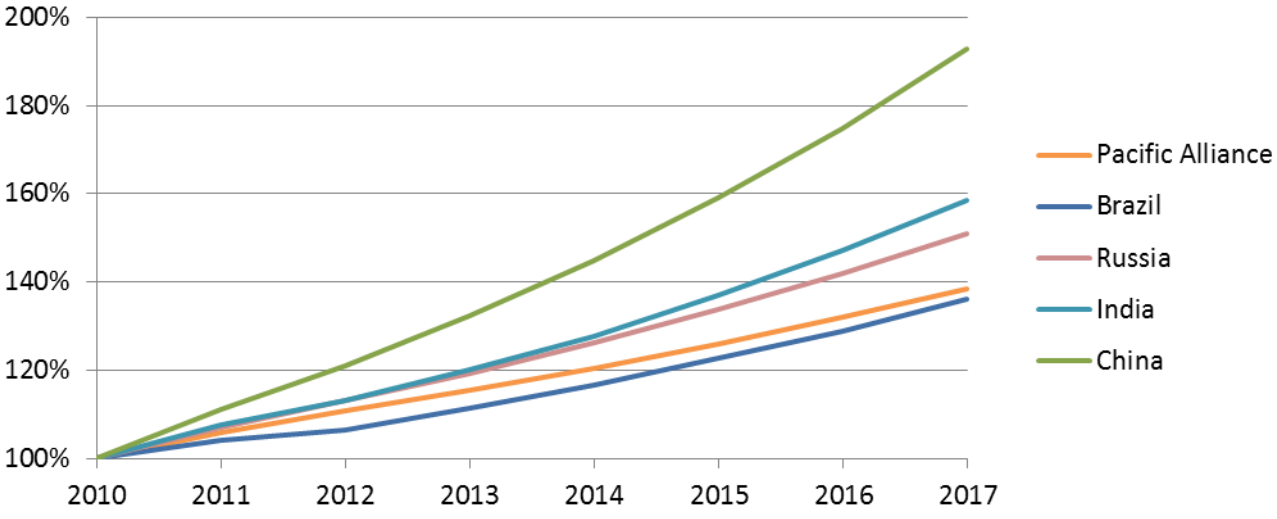
Source IMF

GDP per capita at PPP (USD)

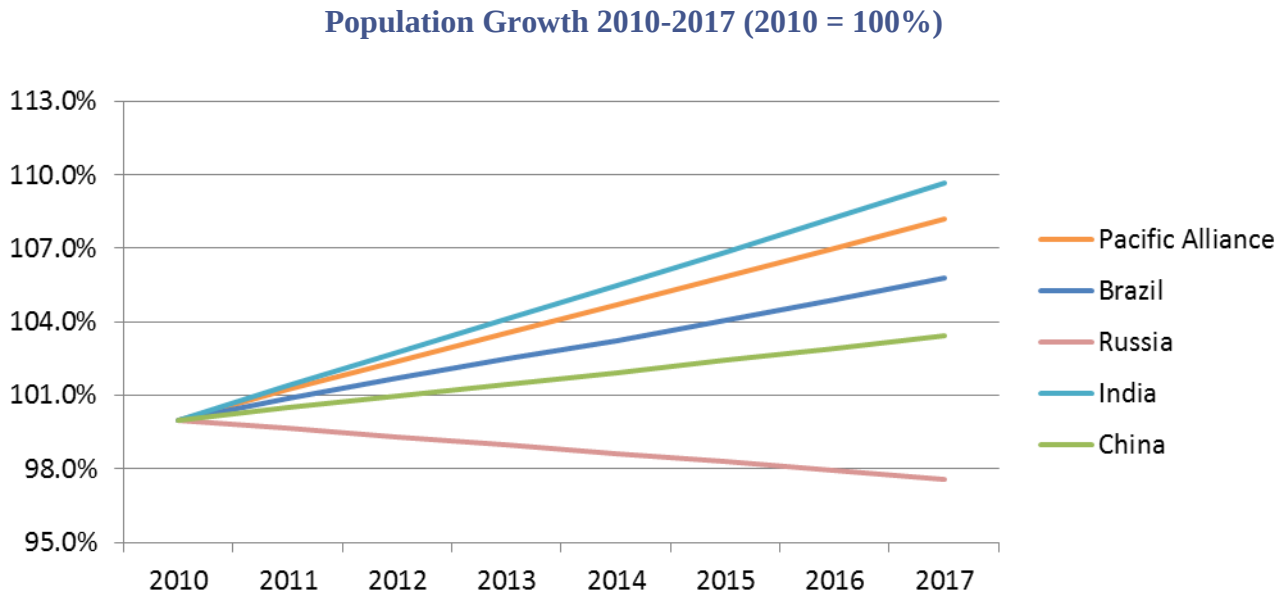


Source IMF

GDP Per Capita accumulated growth 2010 – 2017 (2010 = 100%)

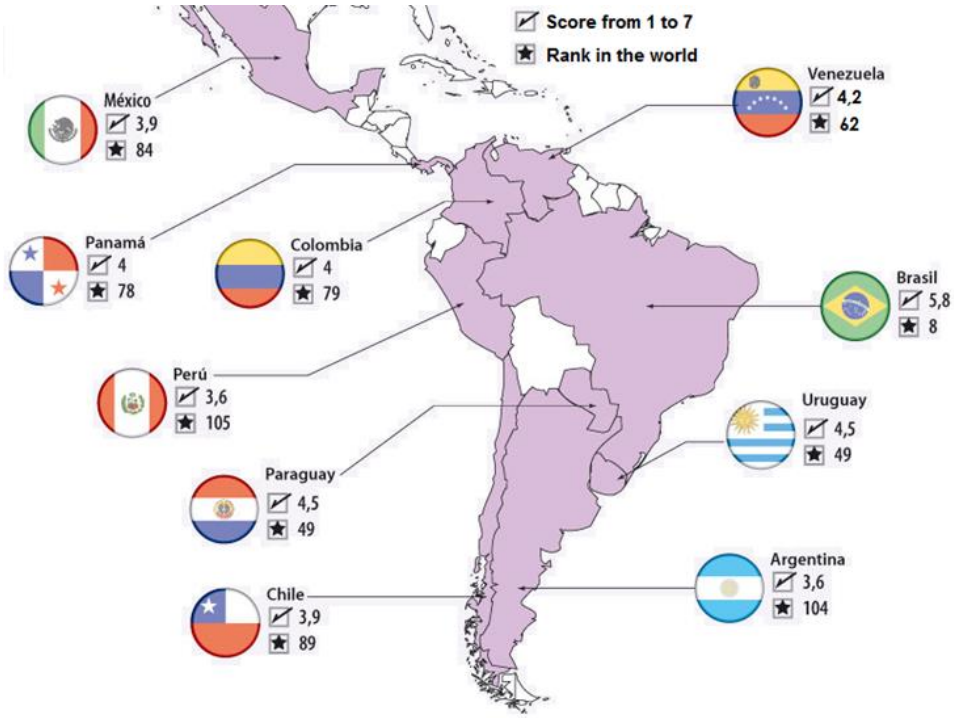


Source IMF


Population Growth 2010-2017 (2010 = 100%)
113.0%
110.0%
107.0%
104.0%
101.0%
98.0%
95.0%
2010
2011
2012
2013
2014
2015
2016
2017
Pacific Alliance
Brazil
Russia
India
China

Source IMF

APPENDIX E. RANKING OF REGULATION OF SECURITIES EXCHANGES IN LATIN AMERICA



Source: World Economic Forum

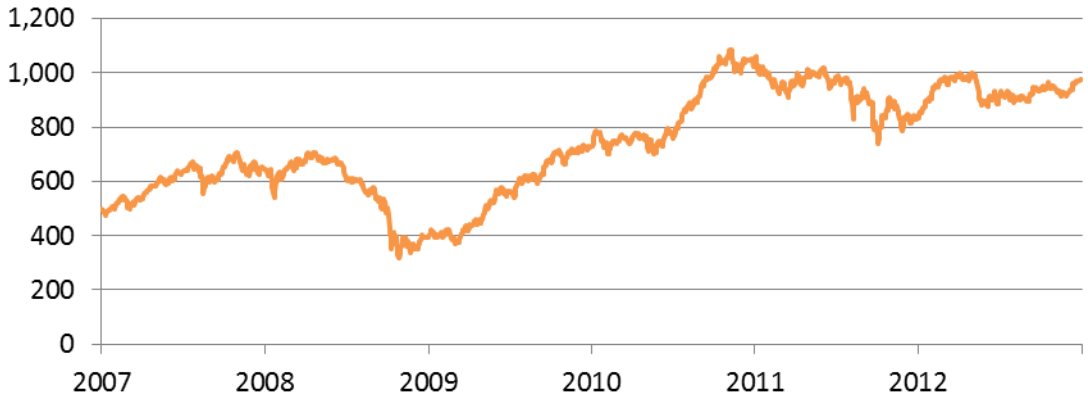
APPENDIX F. S&P MILA 40 - TOP 10 COMPANIES

Country	Company	Float adj market cap	Index weight	Index accumulated
Colombia	Ecopetrol	8,888.2	6.81	6.81
Peru	Compañia de Minas Buenaventura SAA	8,103.9	6.21	13.02
Peru	Credicorp Limited	7,166.3	5.41	18.43
Chile	SACI Falabella	7,108.7	4.96	23.39
Chile	Empresas COPEC SA	6,828.7	4.55	27.94
Peru	Southern Copper Corp	5,100.0	4.10	32.04
Chile	Banco de Chile	4,561.6	4.04	36.08
Chile	Lan Airlines S.A.	3,887.3	3.82	39.90
Colombia	Pacific Rubiales Energy Corporation	4,974.4	3.76	43.66
Chile	Cencosud SA	5,147.8	3.43	47.09

Source: Standard and Poor's.

APPENDIX G. EVOLUTION EQUITY INDEXES OF MILA MARKETS

S&P MILA 40 Index

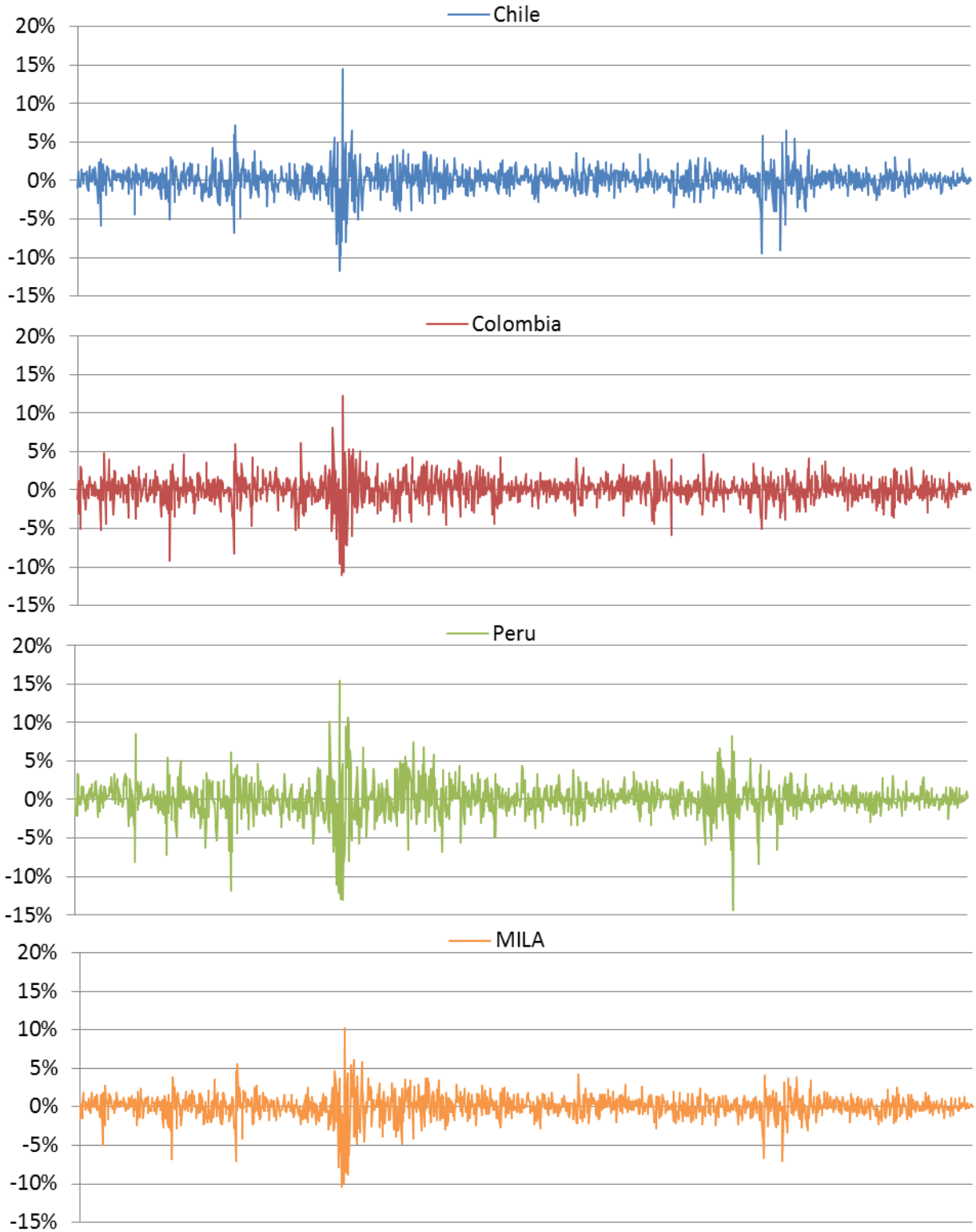


Chilean Stock Index 2003 – 2012

Colombian Stock Index 2003 – 2012

Peruvian Stock Index 2003 – 2012

APPENDIX H. DAYLY RETURNS MILA COUNTRIES INDEX FROM 2007 TO 2012



APPENDIX I. MILA MARKETS' SHARPE RATIOS 2003 - 2012

Sharpe Ratio					
Period	**World**	**Chile**	**Colombia**	**Peru**	**MILA**
2003	1.65	3.21	2.15	4.48	N/A
2004	0.79	1.15	2.90	2.25	N/A
2005	0.38	0.90	3.42	0.75	N/A
2006	1.17	1.46	0.30	3.77	N/A
2007	0.17	0.66	0.06	0.93	1.07
2008	-1.75	-1.31	-1.17	-1.74	-1.36
2009	0.88	2.69	1.82	1.99	2.47
2010	0.35	2.14	1.53	1.72	2.01
2011	-0.49	-1.01	-1.10	-0.40	-1.17
2012	0.83	0.66	1.21	1.09	1.10
2003 - 2012	0.09	0.67	0.84	0.86	N/A
2007 - 2012	-0.23	0.25	0.20	0.17	0.34

* Numbers in red indicate that the risk free asset performed better than the index

APPENDIX J. RISK FREE RATE (10 YEAR US TREASURY BOND YIELD)

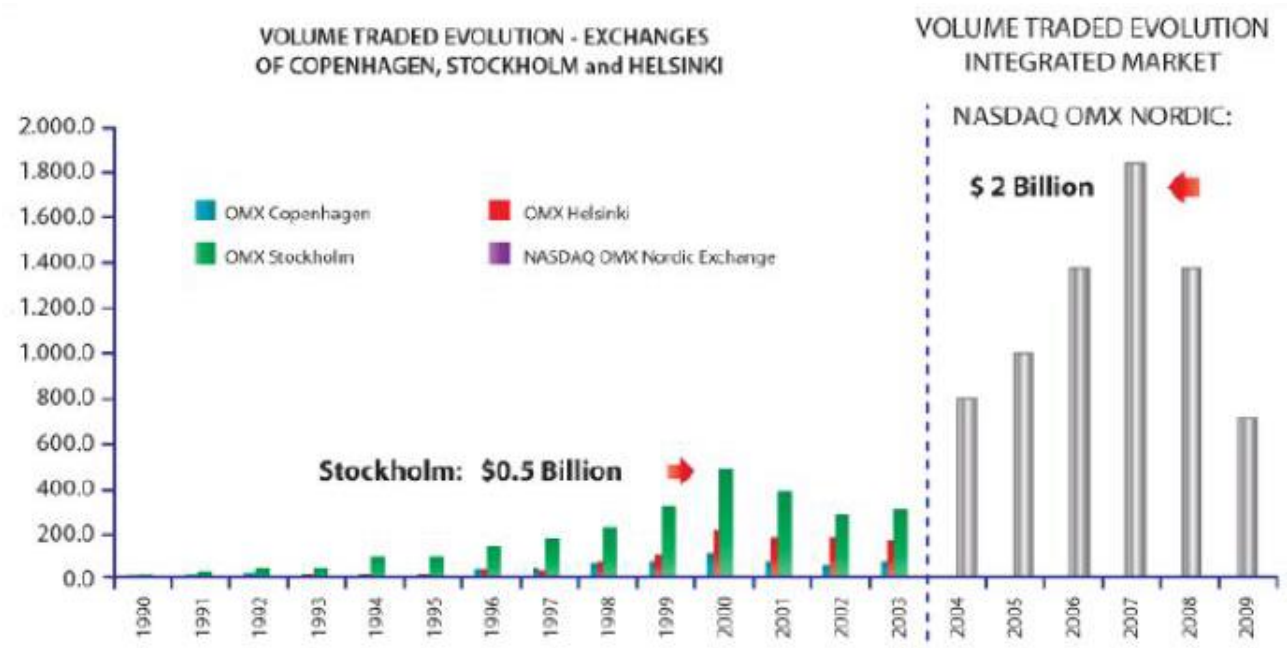
Period	Average Risk Free Rate
2003	3.97%
2004	4.29%
2005	4.22%
2006	4.77%
2007	4.59%
2008	3.78%
2009	3.25%
2010	3.18%
2011	2.78%
2012	1.79%
2003 - 2012	3.66%
2007 - 2012	3.23%
Pre MILA (415 days)	3.24%
Post MILA (415 days)	2.03%

APPENDIX K. MILA MARKETS' CAPM KEY FIGURES 2003 - 2012

	Average Excess Return (Yearly)				
Period	**World**	**Chile**	**Colombia**	**Peru**	**MILA**
2003	22.79%	54.85%	36.17%	56.80%	N/A
2004	7.65%	20.88%	73.67%	43.96%	N/A
2005	3.04%	12.84%	76.66%	13.27%	N/A
2006	11.67%	22.80%	13.20%	107.92%	N/A
2007	2.23%	14.65%	1.57%	28.67%	21.69%
2008	-57.76%	-53.04%	-48.79%	-98.33%	-51.62%
2009	20.54%	60.33%	48.96%	68.94%	56.99%
2010	5.91%	36.64%	31.84%	36.25%	33.49%
2011	-10.67%	-29.63%	-23.83%	-14.65%	-26.21%
2012	10.54%	9.24%	22.38%	16.21%	14.10%
2003 - 2012	1.58%	15.01%	23.31%	25.98%	N/A
2007 - 2012	-4.94%	6.33%	5.33%	6.09%	8.05%
Pre MILA (415 days)	5.54%	27.31%	16.47%	12.33%	19.17%
Post MILA (415 days)	-2.02%	-11.02%	1.46%	3.15%	-4.01%

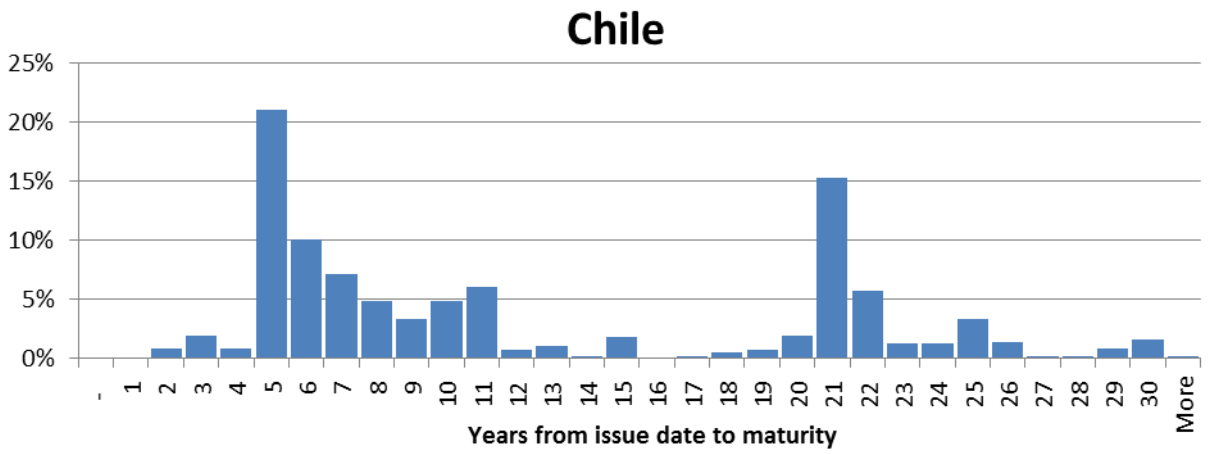
	Betas				
Period	**World**	**Chile**	**Colombia**	**Peru**	**MILA**
2003	1	0.55	0.12	0.32	N/A
2004	1	0.95	0.43	0.66	N/A
2005	1	0.60	0.66	0.68	N/A
2006	1	1.09	2.53	0.73	N/A
2007	1	1.07	0.96	1.27	1.15
2008	1	0.87	0.76	1.17	0.91
2009	1	0.69	0.63	0.98	0.81
2010	1	0.68	0.68	0.88	0.76
2011	1	0.95	0.71	0.83	0.81
2012	1	0.79	0.93	0.73	0.78
2003 - 2012	1	0.83	0.75	0.96	N/A
2007 - 2012	1	0.84	0.74	1.03	0.87
Pre MILA (415 days)	1	0.73	0.70	0.90	0.79
Post MILA (415 days)	1	0.90	0.77	0.80	0.79

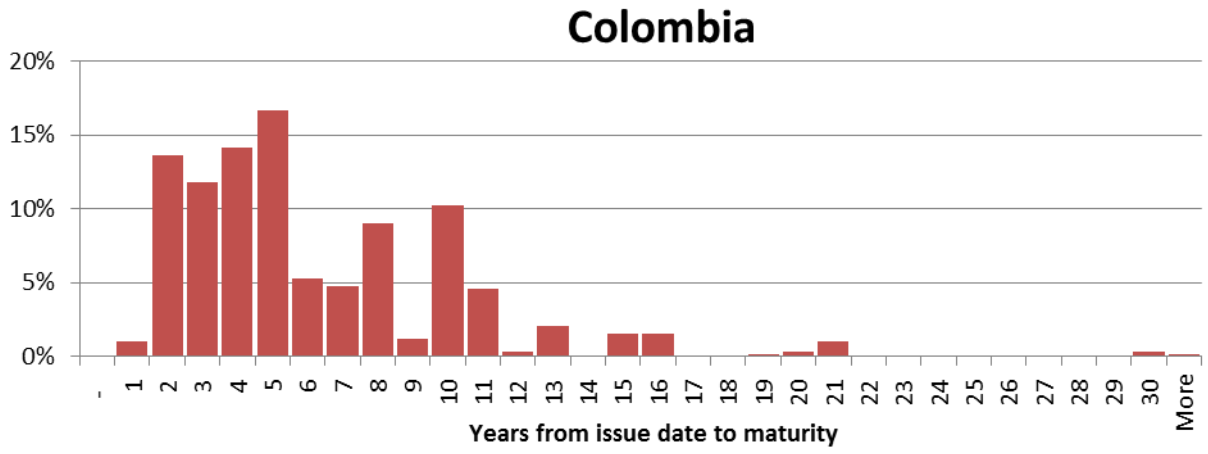
APPENDIX L. VOLUMEN TRADED EVOLUTION BEFORE AND AFTER EURONEXT

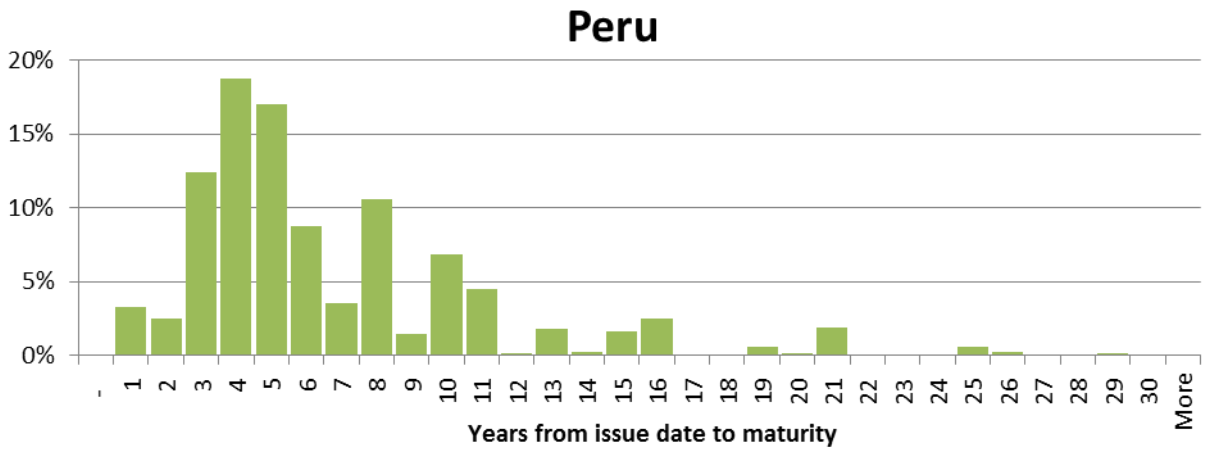


Source: (Pagano & Padilla, 2005)

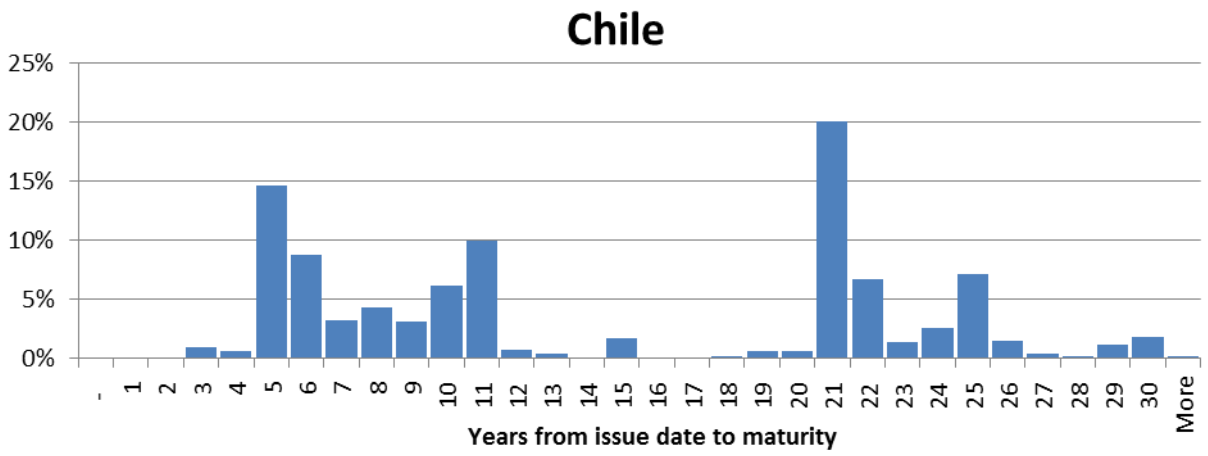
APPENDIX M. DISTRIBUTION PER MATURITY OF CORPORATE BONDS' ISSUANCES FROM 2003 TO 2012 IN MILA COUNTRIES

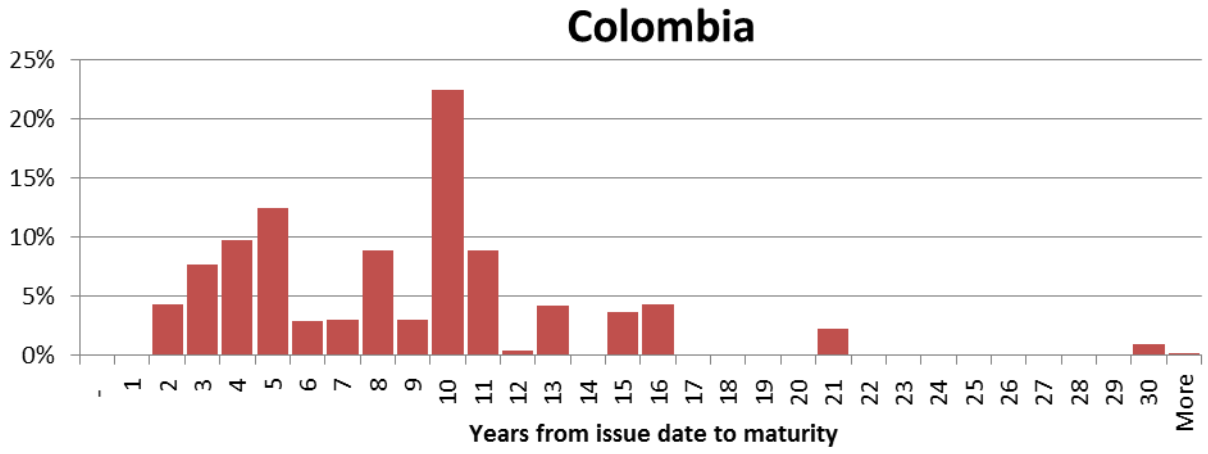


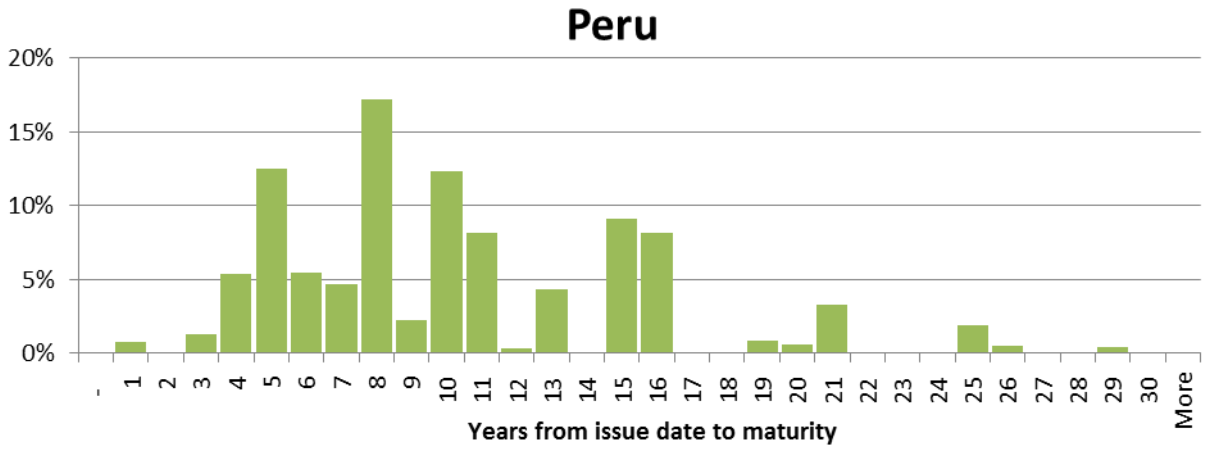




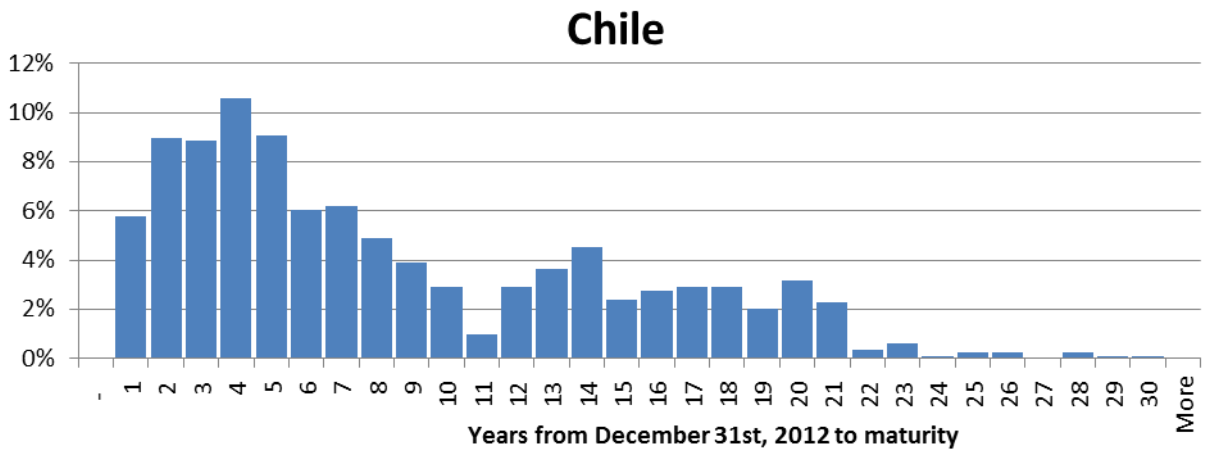
APPENDIX N. DISTRIBUTION PER MATURITY OF CORPORATE BONDS' AMOUNT ISSUED FROM 2003 TO 2012 IN MILA COUNTRIES

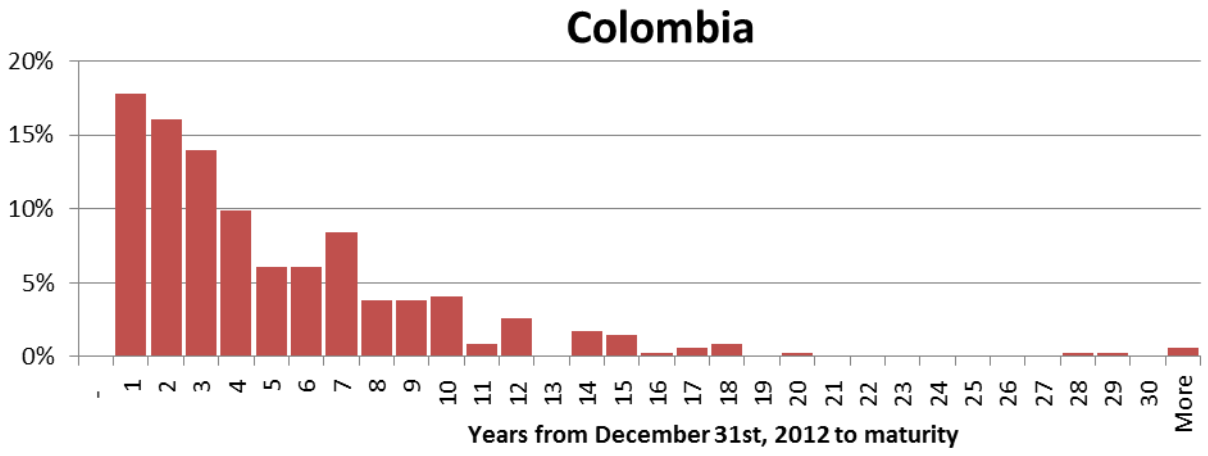


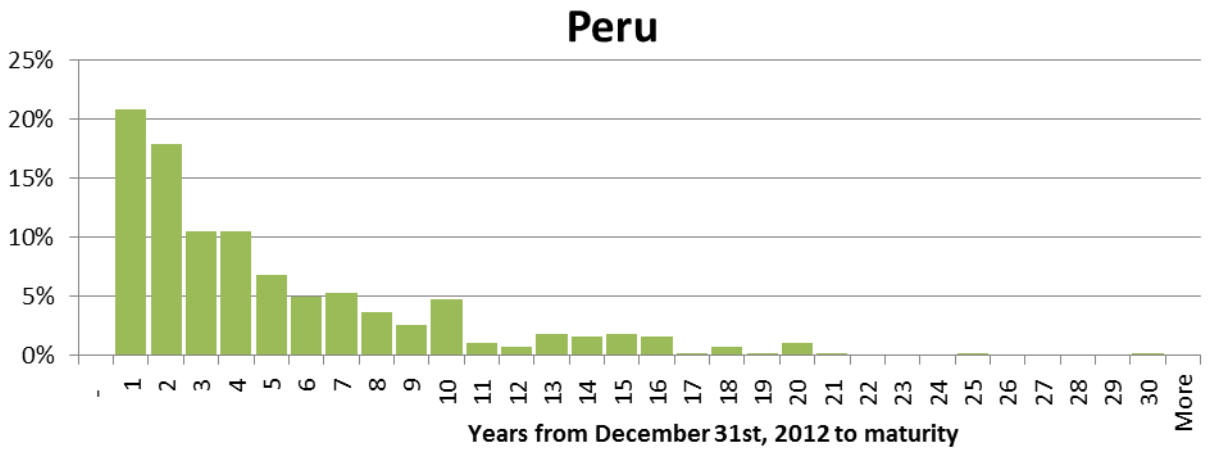




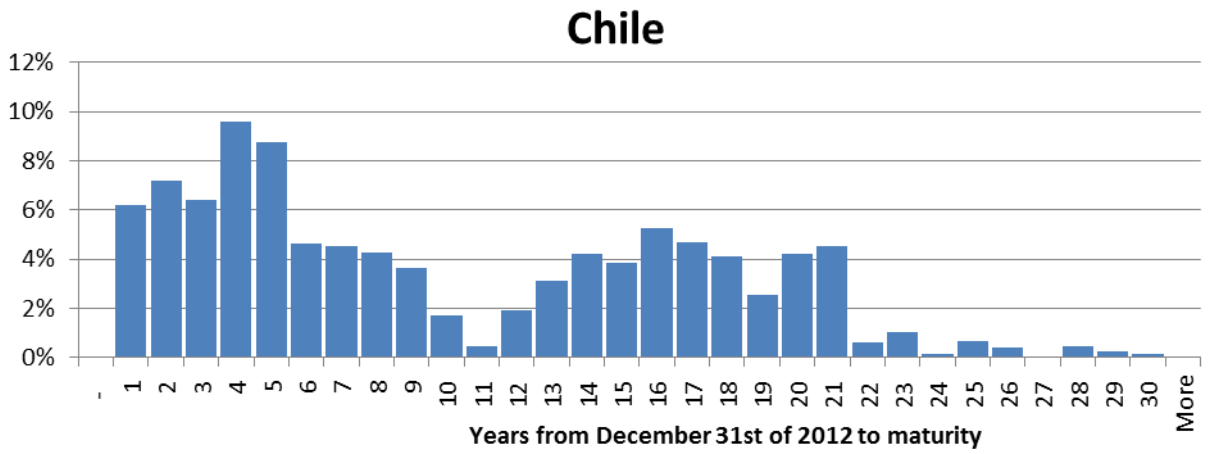
APPENDIX O. DISTRIBUTION PER YEARS UNTIL MATURITY OF ACTIVE CORPORATE BONDS IN MILA COUNTRIES

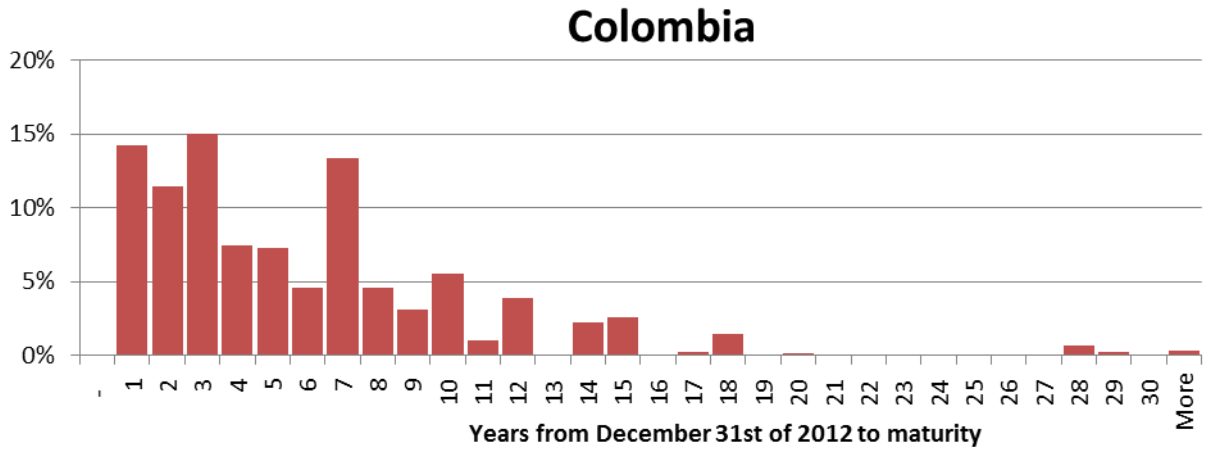


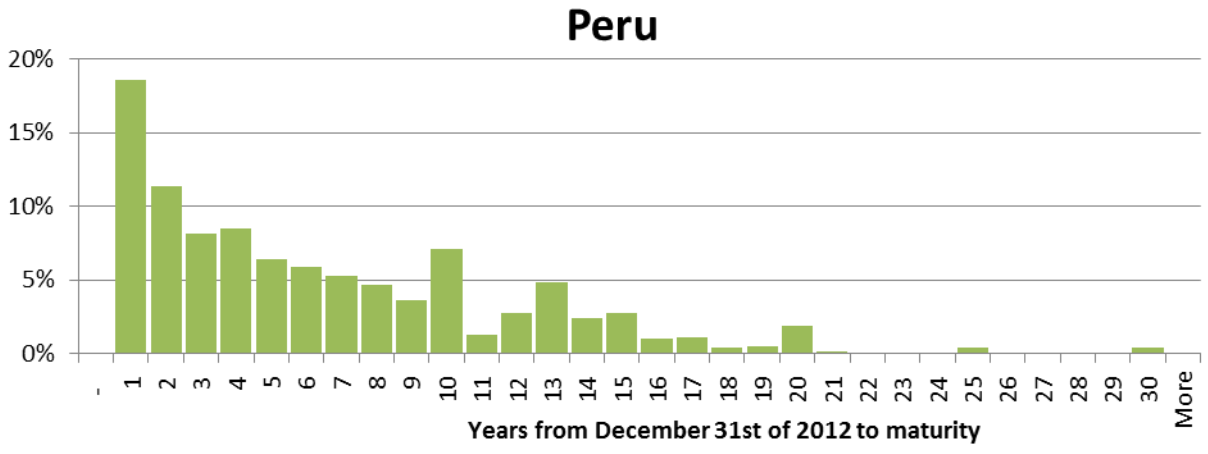




APPENDIX P. DISTRIBUTION PER YEARS UNTIL MATURITY OF ACTIVE CORPORATE BONDS' AMOUNT IN MILA COUNTRIES







Distribution by currency

Currency	Amt Outstanding
Chilean development unit	92.25%
Chilean peso	6.48%
Mexican peso	0.85%
US dollar	0.41%
Grand Total	**100.00%**

Distribution by type of bond

Bond type	Amt Outstanding
Bullet	41.13%
Callable	30.24%
Sinkable	28.63%
Grand Total	**100.00%**

Distribution by type of coupon

Coupon type	Amt Outstanding
Fixed	98.09%
Floating	1.33%
Prelim	0.10%
Variable	0.14%
Zero Coupon	0.34%
Grand Total	**100.00%**

Distribution by currency

Currency	Amt Outstanding
Colombian peso	98.80%
Colombian real value unit	1.16%
Costarican peso	0.04%
Grand Total	**100.00%**

Distribution by type of bond

Bond type	Amt Outstanding
Bullet	97.17%
Callable	1.73%
Sinkable	1.10%
Grand Total	**100.00%**

Distribution by type of coupon

Coupon type	Amt Outstanding
Exchanged	2.13%
Fixed	11.98%
Floating	85.89%
Variable	0.00%
Zero Coupon	0.00%
Grand Total	**100.00%**

Distribution by currency

Currency	Amt Outstanding
Peruvian peso	61.15%
US dollar	38.85%
Grand Total	**100.00%**

Distribution by type of bond

Bond type	Amt Outstanding
Bullet	69.89%
Callable	7.09%
Sinkable	23.02%
Grand Total	**100.00%**

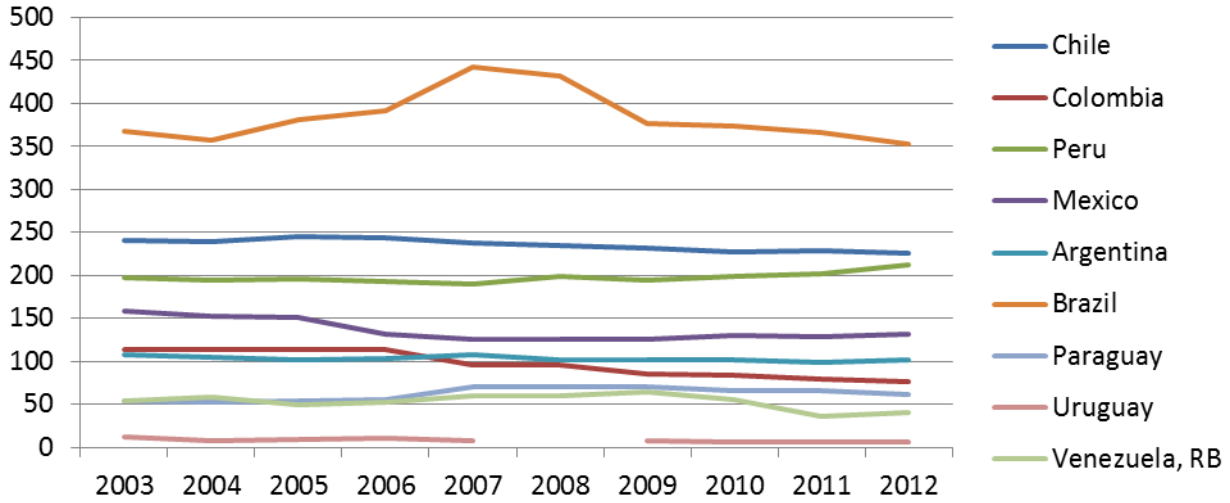
Distribution by type of coupon

Coupon type	Amt Outstanding
Fixed	84.81%
Floating	11.69%
Prelim	2.10%
Step Coupon	0.43%
Variable	0.77%
Zero Coupon	0.21%
Grand Total	**100.00%**

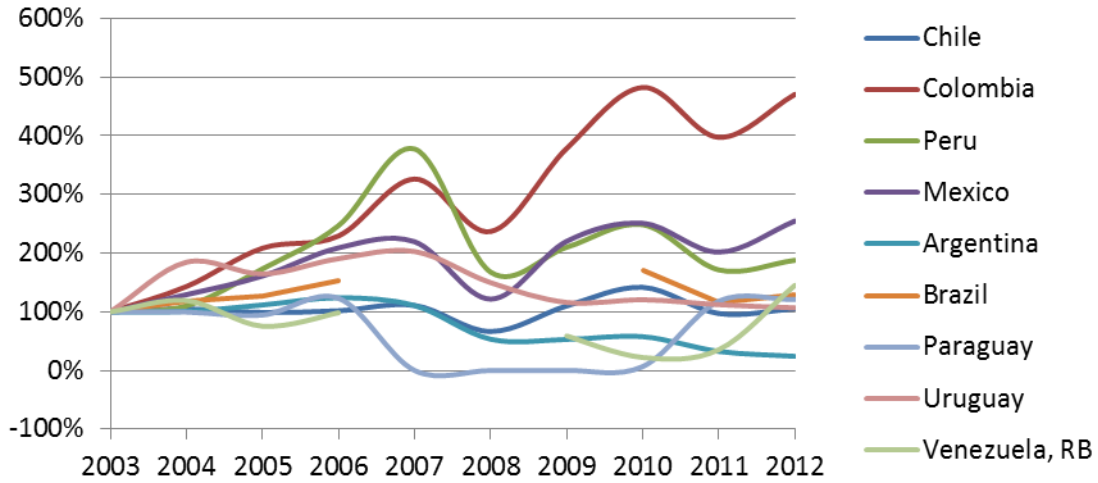
APPENDIX T. CORPORATE DEBT ISSUED BY MILA COUNTRIES BY MARKET

	Chile		Colombia		Peru	
Year	Local	Abroad	Local	Abroad	Local	Abroad
2003	2,057	2,452	514	521	571	
2004	2,909	2,098	1,398	548	750	
2005	3,377	1,446	1,534		1,128	222
2006	4,519	970	1,192	7	1,786	228
2007	6,696	327	1,294	200	1,130	330
2008	5,864		2,495		1,070	
2009	6,531	3,500	6,324	2,167	1,417	338
2010	6,790	5,047	5,003	620	850	1,900
2011	9,885	5,126	4,764	3,806	1,743	1,581
2012	4,275	11,031	4,430	3,747	1,548	3,976

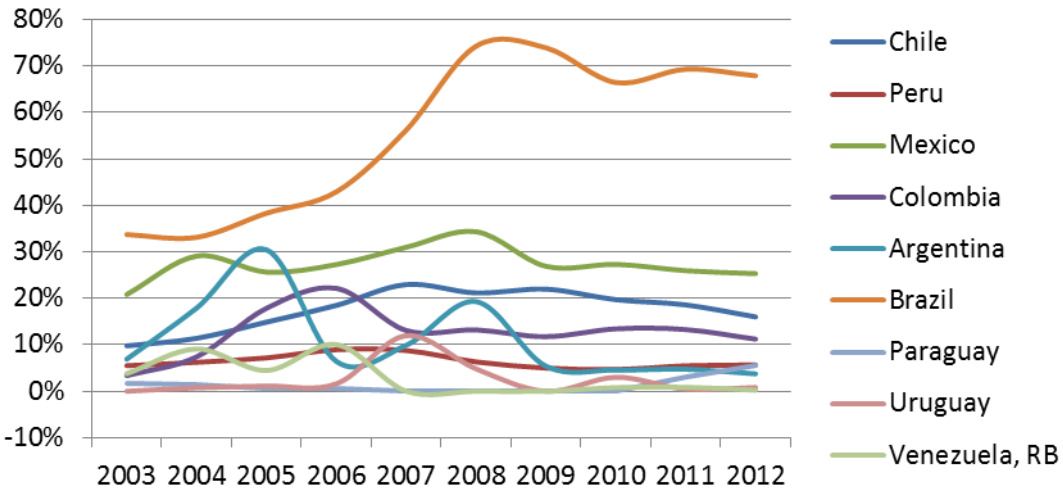
Number of listed companies by country



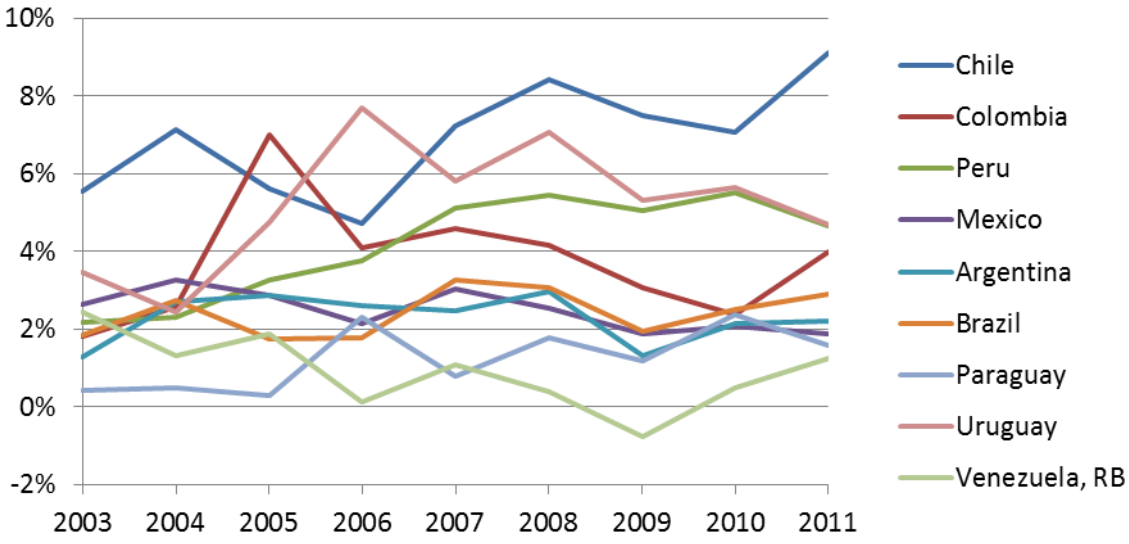
Market capitalization over GDP growth (2003 = 100%)



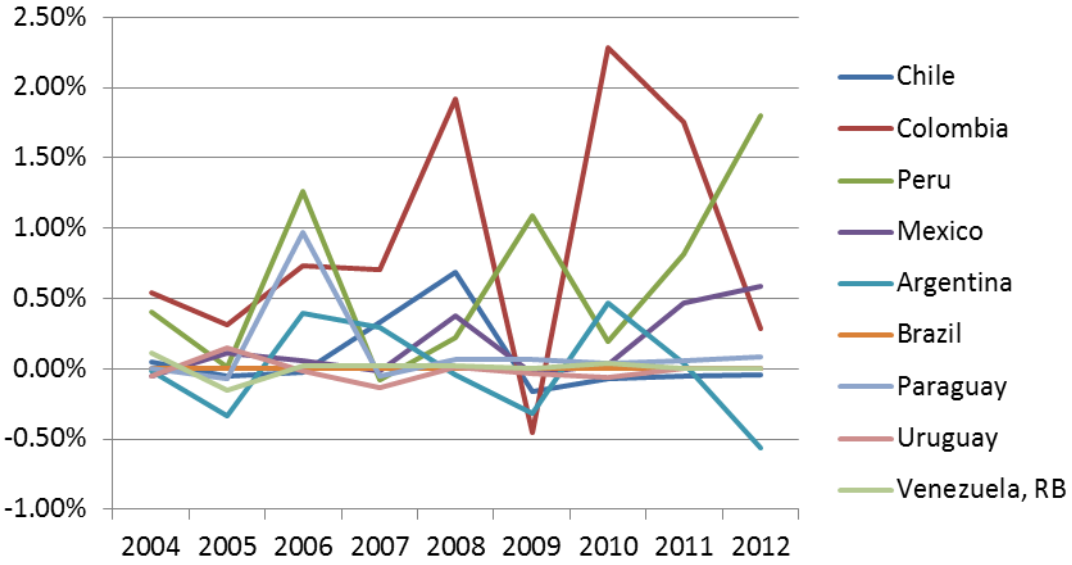
Stocks traded, turnover ratio (%)



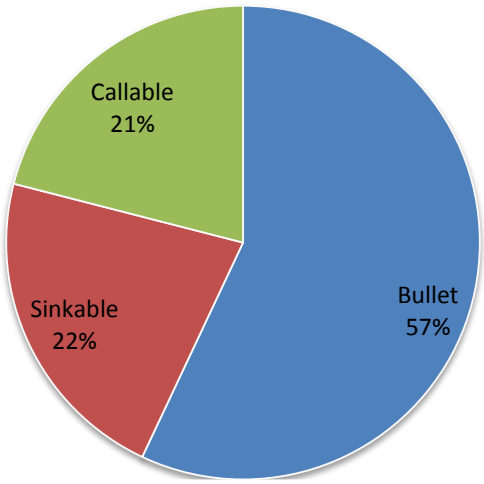
Foreign Direct Investment as % GDP



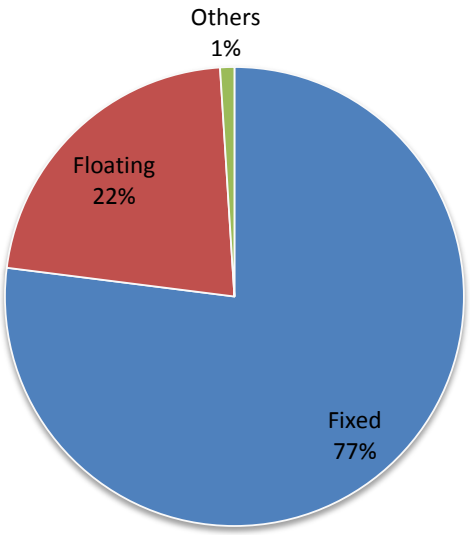
Portfolio equity investment as % GDP



Distribution by type of bond



Distribution by type of bond



APPENDIX W. LENDING INTEREST RATE LATIN AMERICA AND UNITED STATES 2003 - 2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Peru	21.02%	24.67%	25.53%	23.93%	22.86%	23.67%	21.04%	18.98%	18.68%	19.24%
Mexico	7.02%	7.44%	9.70%	7.51%	7.56%	8.71%	7.07%	5.29%	4.92%	4.73%
Colombia	15.19%	15.08%	14.56%	12.89%	15.38%	17.18%	13.01%	9.38%	11.22%	12.59%
Chile	6.18%	5.13%	6.68%	8.00%	8.67%	13.26%	7.25%	4.75%	9.03%	10.06%
Argentina	19.15%	6.78%	6.16%	8.63%	11.05%	19.47%	15.66%	10.56%	14.09%	14.06%
Venezuela	25.19%	18.50%	16.81%	15.48%	17.11%	22.37%	19.89%	18.35%	17.15%	16.38%
Brazil	67.08%	54.93%	55.38%	50.81%	43.72%	47.25%	44.65%	39.99%	43.88%	36.64%
Paraguay	49.99%	33.54%	29.91%	30.14%	25.02%	25.81%	28.26%	26.04%	28.94%	29.10%
Uruguay	58.94%	23.68%	13.61%	9.25%	8.94%	12.45%	15.28%	10.33%	9.78%	11.20%
United States	4.12%	4.34%	6.19%	7.96%	8.05%	5.09%	3.25%	3.25%	3.25%	3.25%

Annualized Returns SPDR S&P 500 ETF at Month End (July 31st, 2013)

	1 Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception 01/22/1993
Net Asset Value	5.07%	5.07%	19.48%	24.75%	17.53%	8.16%	7.53%	8.79%
Market Value	5.26%	5.26%	19.49%	24.87%	17.55%	8.17%	7.56%	8.80%
Index	5.09%	5.09%	19.62%	25.00%	17.74%	8.26%	7.64%	8.91%

Source: (State Street Corporation, 2013)

Annualized Returns SPDR S&P 500 ETF at Quarter End (June 30th, 2013)

	1 Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year	Since Inception 01/22/1993
Net Asset Value	-1.34%	2.89%	13.74%	20.40%	18.25%	6.92%	7.19%	8.57%
Market Value	-1.47%	2.84%	13.55%	20.19%	18.21%	6.91%	7.19%	8.56%
Index	-1.34%	2.91%	13.82%	20.60%	18.45%	7.01%	7.30%	8.68%

Source: (State Street Corporation, 2013)