



Perspectives on corporate finance and the Peruvian stock market

Perspectivas del financiamiento corporativo y el mercado de valores del Perú

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Abstract

The degree of development of financial markets is an indicator of countries' economic growth. A financing alternative for companies is the placement of corporate bonds through the stock market; therefore, this study aims to comparatively review the behavior of the Peruvian stock market in relation to corporate bond issues during the periods 2005-2010 and 2015-2019, as a reflection of the current situation of the Peruvian market. It is a documentary and descriptive study that collects data related to corporate bond placements (amounts, maturity terms and interest rates), through the review of press releases from the Superintendence of the Stock Market (SSM) and the respective cumulative reports of the different risk classifiers approved by the SSM, for each of the companies under study. On average, an increase in emissions was observed, as well as a decrease in interest rates, and both trends were statistically significant. On the other hand, two of the companies examined issued green bonds in both the domestic and international markets. These are favorable indicators for Peru's economy, validating that it is growing and even more so, predisposed to global change in which more than business financing, a positive impact in the social and environmental spheres are sought through the issuance of green bonds.

Resumen

El grado de desarrollo de los mercados financieros son un indicativo del crecimiento económico de los países. Una alternativa para el financiamiento de las empresas es la colocación de bonos corporativos a través del mercado de valores, así, este estudio pretende revisar el comportamiento en el mercado de valores peruano relativo a las emisiones de bonos corporativos comparativamente durante los periodos 2005-2010 y 2015-2019, como reflejo de la situación del mercado actual peruano. Es una investigación de tipo documental y descriptiva, recopilando datos relativos a las colocaciones de bonos corporativos (montos, plazos de vencimiento y tasas de interés), mediante la revisión de notas de prensa de la Superintendencia del Mercado de Valores (SMV) y los respectivos informes acumulados, de las diferentes compañías clasificadoras de riesgo aprobadas por SMV, para cada una de las empresas en estudio. Se observó en promedio un aumento en las emisiones, así como la disminución de las tasas de interés y ambas tendencias, fueron estadísticamente significativas. Por otra parte, dos de las empresas revisadas, emitieron bonos verdes tanto en el mercado nacional como en el internacional. Estos, son indicadores favorables para la economía del Perú, los cuales validan que viene en crecimiento y más aún, predisuestas al cambio global en donde se busca más que el financiamiento empresarial, un impacto positivo en el ámbito social y en el medio ambiente, con la emisión de bonos verdes.

Keywords | palabras clave

Stock market, corporate bonds, green bonds, bond market.

Mercado de valores, bonos corporativos, bonos verdes, mercado de bonos.

Suggested citation: Horna Zegarra, I. E. (2020). Perspectives on corporate finance and the Peruvian stock market. *Retos Revista de Ciencias de la Administración y Economía*, 10(19), 127-142. <https://doi.org/10.17163/ret.n19.2020.08>

1. Introduction

Different economy studies link the growth of financial markets to the development of the economy, giving importance to the benefit that the development and growth of capital markets generate in a country. Thus, the development of the financial market in the country is a necessary condition to achieve better rates of economic growth (Moreno, Vásquez, Hernández & Larios, 2015; Greenbaun, Thakor & Boot, 2019).

The stock market is part of the financial market, where various economic actors converge, such as state-owned enterprises, corporate enterprises, individuals and others, which require and deliver borrowable funds. The function of this market is to centralize financial securities negotiations, also called financial instruments.

The companies that participate in the market to raise resources are the issuers and those with capital to finance are called investors. The marketable securities are shares, bonds, short-term instruments, etc., and depending on the instrument, they grant rights to investors in the share of the profits or dividends of companies, right to vote at shareholders' meetings, or to receive interest payments (MEF, 2016a).

The stock market offers several investment alternatives as needed by issuers or investors, in terms of criteria such as yield, liquidity and risk. Thus, the money received by issuers is mainly used to finance investment projects or restructure the company's liabilities (Stowell, 2018).

The stock market offers financing alternatives when savings resources are granted through its system, creating the investment allocation channel; reducing the cost of financial intermediation and constituting the beginning of the financial change. Therefore, they serve the function of facilitating the investment process by providing a market where transactions are carried out efficiently and with lower costs. Thus, investors can safely sell and buy securities if required and make continuous transactions, guaranteeing their price (Stowell, 2018). However, many investors with high experience in their inquiry, retrospectively note how in the past they could obtain reasonable income from relatively secure certificates of deposit, and money market funds have today been encouraged by what appears to be the beginning of a faster increase in interest rates, affecting price stability in the investments, reason for which the rate increase causes a loss of attraction to already overvalued stocks, long before pension investments in certificates of deposit and money market funds became profitable capital investments for both existing investors and previous generations.

If a company is judged favorably by investors, it is estimated that the stock market value becomes more attractive, the entity is strengthened financially, they acquire higher volumes which facilitates new financing and more growth (Jacobsen & Venkataraman, 2018). In addition, the operation of the stock market is stabilized, generating continuous markets that cause more frequent but smaller price changes. In lower-moving markets, price changes are less frequent, but more violent; and this will facilitate the assimilation of new securities issues and their successful launch (Greenbaun *et al.*, 2019).

Globally, a widely used alternative for the financing of the business sectors is primary the allocation of corporate bonds before resorting to a bank credit (Rodríguez, 2010; Jacobsen & Venkataraman, 2018). Allocating or issuing bonds on the market meets medium- and long-term financial needs, and the capital acquired is used to

finance new investment proposals such as the acquisition of new assets or the restructuring of long-term debts (Rodríguez, 2010; Stowell, 2018; Greenbaun *et al.*, 2019).

The Peruvian Securities Market Law, Article 86 of Legislative Decree No. 861, defines bonds as the public offering of debt securities with a debt term higher than one year, and the Securities Law includes them within transferable securities, where the public primary offering (PPO), implies that it is aimed at the general public, and the issuers and claimants of funds offer transferable securities (shares, bonds, negotiable certificates of deposit, short-term instruments, etc.) to outperforming agents who have surplus funds, investors.

For a company to enter the PPO it must comply with the requirements that regulate the stock market, one of them being the registration of the securities matter of the offer in the Public Register of the Securities Market (RPSV), this, prior to the placement of such securities among investors (Acosta, 2017).

The PRSM is a register managed by the Superintendency of the Securities Market (SSM), which is the supervisor and regulator of the public stock market in Peru. The registration in the PRMV involves giving the integrated permanent disclosure system all company information to the market in relation to the securities being traded, which favors the allocation of the market value price and it also has the effect of reducing the costs associated with disclosing information (Acosta, 2017).

In general, businessmen complain about the limited access to the primary capital market (Chalamandaris & Vlachogiannakis, 2018; Nikolova, Wang & Wu, 2019). In Peru, few companies are resorting to the issuance of corporate bonds, this is partly due to the number of requirements to which public offerings are subject, and secondly the companies that can access the financing through these debt instruments are mostly rated as large corporations, as their financing needs are so large that they dilute fixed issuance costs. Legislation should promote greater competition to primary corporate bond placements to improve the primary stock market, with the idea that the primary stock market actually offers a financing alternative that competes with the banking system (Rodríguez, 2010).

In fact, the Securities Market Promotion Act (Act No. 30050), as well as the Institutional Investor Market Regulations approved by Resolution SSM No. 021-2013-SMV/01, provide an exception to the regime to issue securities that are publicly offered to institutional investors, in which some advantages are added for potential issuers, such as fewer requirements for the registration and formulation of the offer of securities (stocks, bonds and short-term instruments), shorter durations of formalities and less cost, among other benefits, representing a change and the beginning of new economic trends for Peru (MEF, 2019a).

During the years 2007-2009, a contraction of the economy was manifested globally; impacting the local corporate bond market, reducing emissions and amounts, then gradually, according to the report of the Ministry of Economy and Finance of Peru (2016) in recent years the private sector has participated and used the market values, so this has been growing (MEF, 2016b).

The above is a reason to present a review of the allocations of corporate bonds in the public primary offerings on the Peruvian stock market of some of the Peruvian companies that traditionally use this medium for their financing, as an extension that allows to know the changes that have been happening to the Peruvian economy.

1.1. Financing instruments

Trading instruments on the stock market are known as financial securities, financial assets or simply securities. Peruvian law establishes differences between securities and transferable securities, the first being the bill of exchange, the check, the promissory note; while transferable securities refer to stocks and bonds, negotiable certificates of deposit, short-term instruments, etc. (Art 1 Securities Act (LTV) of 19/06/2000; Article 3 Law on the Securities Market (LMV), Legislative Decree No. 861 of 22/10/1996.

Legislative decree No. 861 in Article 3 of the Law on the Securities Market (LSM), in force since 22/10/1996, establishes that transferable securities are those issued in a massive and freely negotiable form that give their holders credit, land or patrimonial rights, or those with participation in the capital, equity or profits of the issuer. Article 86 defines bonds as the public offering of representative debt securities longer than one year.

The stock market differentiates several types of bonds depending on the issuing agent, among those from the public sector are: treasury bonds, capitalization of the Central Reserve Bank, recognition and Brady; and by the private sector: corporate, leasing and subordinated bonds (Noriega, 1998; Stowell, 2018).

Bonds are fixed income financial instruments issued in the medium and long term by a deficit agent that may be a company, government or public body (municipality), with a certain interest rate (fixed rate, or zero coupons) and already set dates for the payment of interest (coupons) and reimbursement. They represent an advantage for issuers because they are not necessarily covered by defined guarantees, contrary to bank loans in which fixed assets can be taxed more frequently (Rodríguez, 2010; Pilbeam, 2018; Stowell, 2018).

Bond issuance covers medium and long-term financial needs and the accrued capital will be used to finance part of its fixed assets, investment projects or the restructuring of long-term commitments. This aspect is precisely what sets it apart from other short-term instruments, which are aimed at meeting short-term financial needs (Sambola, 2012).

Among the bonds issued by the private sector are the leasing bonds, which are issued by companies authorized to carry out leasing operations within a term of no less than three years, which could be placed in both and offer fixed or variable performance. If necessary, there is no impediment to incorporating as collateral any assets of the issuing entity, third parties or a bond card granted by an entity of the financial system (MEF, 2012).

Subordinated bonds are issued by banks and financial firms over five years, they do not have the option of guarantees, nor can they be canceled before time or the draw ransom. If the issuing company goes into liquidation, they are redeemed after fulfilling the other obligations borne by the issuer. Subordinated bonds are only anticipated to common and preferential shares in the order of priority (Sambola, 2012; MEF, 2012).

Corporate bonds, the subject of this study, are those issued by companies to raise funds that allow to finance their investment operations and projects. They are

issued at face value which will be paid to the holder on the due date. The amount accrues interest that is canceled in periodic installments (coupons) or in full on the due date, which will be more than one year (Rodríguez, 2010; Pilbeam, 2018).

1.2. Market for borrowable funds

Investing represents allocating resources to assets that will increase a corporation's production capacity. The investment of the corporation will depend on the interest rate, which is the cost of the loan; evidently, the company will only accept projects whose profits are higher than the cost of financing. Hence, the higher the interest rate, the lower the demand for loans from a given company. Thus, the interaction between the functions of supply and demand will determine the equilibrium interest rate (Arrarte, 2018).

From a financial point of view, the investment is an operation in which the level of assets required in a given production or provision of services is provided initially or fully. Its essence is in the desire to sacrifice the consumption in the present, in order to access more consumption in the future.

Whether an investor agent has the ability to finance others or that as an issuer it will require financing will depend on the relationship between the investment and savings at a given time. When there is a shortage of financial resources in a company (deficit agents), the agent will tend to finance itself through the various instruments offered by the financial markets (Arrarte, 2018).

Borrowable fund markets (or capital markets) are the channels through which deficit agents obtain the financial resource to acquire their fixed assets. These resources come from the savings of surplus agents. A characteristic of the borrowing fund market is that all kinds of investments or transactions relating to capital or financial assets (buying sale of shares, bonds, among others) as well as the placement of loans in the long term are made (García, 2014). In this market, it is where the price of capital is adjusted to make the amount offered equal to the amount demanded, setting the interest rate. Thus, the interest rate is the price of use of borrowed funds during a specific period (Gómez González, Huertas, Cristiano & Chavarro, 2016; Pilbeam, 2018).

Therefore, relatively long-term financial instruments are traded in the capital market, facilitating the union that is established between the savings versus the investment provisions of the companies involved. Thus, the value of the financial asset is allocated by the current price of the expected cash flows (the liquid money that is expected to be received during the fixed period of that financial investment) (García, 2014).

According to the theory of the law of supply and demand, bond buyers are willing to buy more bonds at a lower price. The lower the price of the bond, the higher its yield at maturity. The higher the yield at maturity, the more surplus agents will be willing to lend money (Chalamandaris & Vlachogiannakis, 2018). In contrast, bond borrowers will offer more bonds at a higher price. Higher bond prices mean lower maturity yields. Bond bidders are willing to offer more bonds (take more funds) at lower interest rates than at higher interest rates (Pilbeam, 2018).

The supply and demand for bonds determine how the bond is quoted. Thus, as the market interest rate decreases, the price of the bond will be higher and vice versa (Arrarte, 2018; Pilbeam, 2018).

2. Materials and method

The objective of this study is to conduct a retrospective review of the corporate bond placements of some companies participating in the Peruvian stock market during the periods 2005-2010 and 2015-2019, in order to assess the situation of companies in both periods in correspondence with the dynamics of changes that have occurred in the Peruvian economy.

This is a documentary and descriptive investigation, since the data was obtained by consulting different types of documentation; thus, the information corresponding to the period 2005-2010 corresponds to the data of the doctoral research work of the author; the work is titled "Primary placements of corporate bonds on the Peruvian stock market". The obtaining of the data during the period 2015-2019, was carried out by reviewing press news issued by the Superintendency of the Securities Market and the reports issued by the different risk classifying companies such as: Class & Risk Classifying Associates, PCR Pacific Credit Rating, Support and Associates fitch ratings, and Equilibrium Risk Sorter, for each of the companies in the 2019 cumulative reports, locating information regarding the amounts of annual corporate bond placements, maturity and interest rates.

The sampling was not directed, as 10 companies were chosen by the easiness of finding the company's information in relation to the placement of corporate bonds on the stock market, the maturity period and interest rates average to the annual face value in both periods, whether published on social media through press reports or in public domain documents, which are found on the sites of the Superintendency of the Securities Market (SSM) and on the web as the reports of the risk classifiers. Data for the years 2011-2014 were not included in the study, because during that period some companies did not issue bonds or the information was not available.

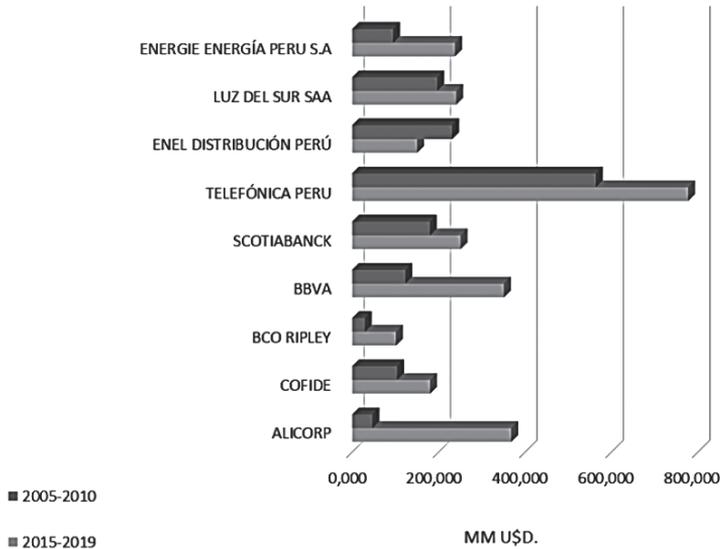
The collected data was given descriptive statistics, tabulating amounts and fees on bar charts. In addition, inferential statistics were applied, using Pearson's nonparametric test for trend analysis of placed amounts, while the Spearman index was used to assess the trend with respect to interest rates to correspond these trends to the current situation of Peru's economy.

3. Results

During the period 2005 to 2010, a total of 70 companies made primary public offerings on the Peruvian stock market, of which 46 companies resorted to financing through corporate bonds, representing 66% of the total placed in *soles*, followed by 18% and 8% in negotiable certificates of deposit and short-term instruments, respectively. Of the total placements in *soles* and dollars, 55% was made in new *soles* and the difference in dollars (45%) (Horna, 2012).

Figure 1 shows the total amounts accumulated by each of the companies in the periods 2005-2010 and 2015-2019, with an increase in total emissions in *soles* in most companies, led by the company Alicorp with an increase in its emissions by US\$ 322 million, equivalent to 1094 million *soles*, and the company ENEL Distribution Peru as an exception, with a decrease of US\$ 81 million, equivalent to 274.31 million *soles* in the cumulative of its placements in that period.

Figure 1. Amounts in total US\$ placed by companies through corporate bonds on the Peruvian stock market in the periods 2005-2010 and 2015-2019



Source: Own elaboration with data obtained from the reports of the risk classifiers for each of the companies cited: Cariñaupa and Barba (2019); Córdova (2019); Garro (2018); Garro (2019); Izquiero and Gallo (2018a, 2018b); Tarazona and Regis (2019); Tejada and Barba (2019); Tejada and Regis (2019); Tejada and Vallejo (2019).

When applying the Pearson inferential statistic to the data to correlate the trend between the two periods, an index of $R=0.80$ was obtained, indicating that bond placements in the two periods have a very strong and positive linear correlation. In other words, the tendency of companies is towards increasing the amounts of corporate bond placements on the stock market.

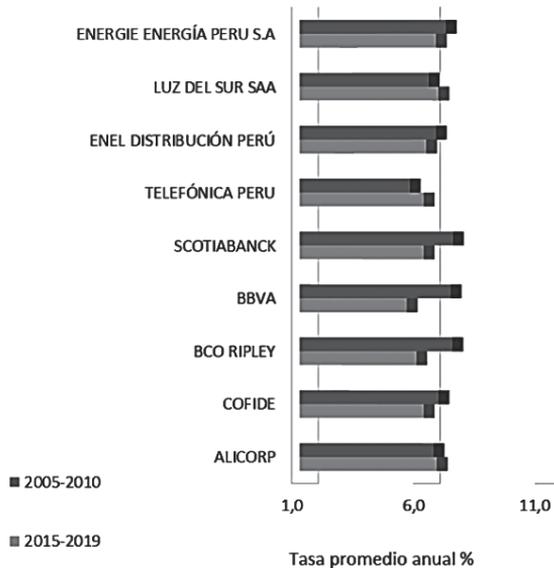
With regard to the average interest rate at which the maturity quotas of the different deadlines were set, Figure 2 shows that it decreases when comparing the periods studied. The companies that did not meet this trend were ALICORP, Luz del Sur and Telefónica Peru, with differences of 0.1; 0.4 and 0.9 points, respectively. The case of Telefónica Peru, whose increase in the average rate was the largest, was highlighted.

Also, when performing the trend correlation analysis in the two periods studied, it was observed that the trend was not linear, better adjusting the data to the Spearman model (nonlinear) yielding in this case an index $R= -0.74$, which is negative and with a high value indicating very strong correlation, i.e. interest rates set on corporate bond issuances are prone to decline, with a negative and very strong correlation rate.

Moreover, in this study, in addition to the private companies chosen, two public state banking companies, such as Corporación Andina de Fomento (CAF) now called Banco de Desarrollo de América Latina and Corporación Financiera de Desarrollo S.A. (COFIDE) were included (see Table 1), which in its economic activities represent state policies, giving the guidelines in some way to the economy in the market.

CAF was not included in the previous figures, as for the period 2005-2010 after having placed a total amount of approximately US\$ 116 million (393 million soles) in corporate bonds, it presented a considerable spin in the recent period, where all its placements were in 12 types of foreign currency in the international market, totaling US\$4.9 billion, of which US\$130 million were three Green Bond placements in 2018. On the other hand, COFIDE was included, which has been participating in the primary public offering of the Peruvian stock market, placing corporate bonds which have marked a trend towards the increase in the value of the amounts, passing approximately in their equivalent in US\$104,099,000 for the period 2005-2010 to US\$180,091,000 in 2015-2019, presenting in the first quarter of 2019 a shift by placing US\$100 million in Green Bonds, within three years with a rate of 5.13%.

Figure 2. Average interest rate at which the issuance of total corporate bonds accumulated on the Peruvian stock market was fixed in the periods 2005-2010 and 2015-2019



Source: Own elaboration, with data obtained from the reports of the risk classifiers for each of the companies cited: Cariñaupa and Barba (2019); Córdova (2019); Garro (2018); Garro (2019); Izquierdo y Gallo (2018a, 2018b); Tarazona and Regis (2019); Tejada and Barba (2019); Tejada and Regis (2019); Tejada and Vallejo (2019).

Table 1. Placement of corporate bonds of the companies CAF and COFIDE during the period 2015-2019

Enterprise	Bond type	Issuance year	Accumulated amount MM US\$	Average term (years)	Average interest rate %
Corporación Andina de Fomento (CAF)	Corporate In International Market, Placement in Dollars	Accumulated 2015-2019	21020	3	2.12
	Green bonds	2018	130	6	3.99
Corporación Financiera de Desarrollo (COFIDE)	National corporate makets	Accumulated 2015-2018	180,691	9	6.28
	Green bonds	2019	29,41	3	5.13

Source: Own elaboration with data from S&P Global, (2017); Krmelj, Regis and Tejada, 2019.

4. Conclusions and discussion

For countries, the primary stock market plays an important role in their economy by facilitating the reduction of transaction costs by obtaining financing at lower interest rates. During the period 2005-2010, most of the companies that made up the Peruvian business sector had reduced asset volumes, hence the financing requirement is not large enough to enter the primary market of securities at a cost that is less than other financing alternatives, representing a structural constraint. In fact, according to SSM out of a total of 1828 companies in Peru in 1999, only 2% had assets higher than US\$ 200 million.

There were limited corporate issues in the period 2005-2010, which, by capturing the full flow of capital, contributed in some extent to reducing the diversification of the capital market and the concentration of placements of financial assets; this given by the low number of companies willing to participate in the PPO, regardless of whether they require financing and that it is considered as one of the best alternatives because of the low costs of issuance, but in this type of financing companies are subject to a legal framework that rule operations.

As expressed above, if companies want to participate in the PPO of securities they must register with the PRSM and ask for their participation in the SSM, including the documentation and information indicated in the Securities Market Law, Legislative Decree No. 861 and its changing rules. One of the documents to be submitted is a draft information leaflet, which is a legally binding document containing all the necessary financial information, so that the investor can make an informed investment decision. Once registered in the PRSM, companies are obliged to provide all information to the market with respect to securities, and for a major Peruvian business sector this is considered a constraint; thus, of the total number of companies in Peru, very few access this alternative when seeking financing, most have proven reluctant to provide their information to the market; i.e., they do not wish to make

public the information regarding the progress of their companies, perhaps due to a weak or poor culture of disclosure of financial information, which similarly affects the low appreciation of such instruction from a tax point of view.

However, the results of the study conducted by Nikolova, Wang and Wu (2019) for companies in the United States of America found that these companies complain of limited access to primary markets, based on little information available about issuing companies.

In the Peruvian case, another limitation on the participation of companies to the PPO of corporate bonds is the costs of access, because the minimum value of emissions must be greater than US\$ 10 million for a valued AAA-level company to consider profitable debt to be issued, otherwise its fixed expenses could not cover them. This minimum issuance amount is an obstacle that prevents smaller capital firms from participating in the market, as they require lower amounts of financing.

Thus, since 2010, the SSM has promoted a set of initiatives aimed at strengthening the role of the stock market in the financing of Peru's economic development, seeking from the point of view of the offer, to promote the entry of new issuers, easing regulation, new mechanisms, maintaining information visibility and knowledge of risks, ensuring the investor's protection and allowing new investors to enter. The SSM recorded the influx of approximately 31 new issuers to the capital market during the period 2010 to 2015, and in 2012 the Alternative Securities Market (ASM) was created for non-corporate companies (Roca, 2016), with the aim of establishing the foundations for the market growth.

During the period 2005-2010, 55% of the total placements in the capital market were made in *soles* compared to 45% in dollars. This preference for *soles* financing reduces exchange rate risk in the balance structure, given by the strengthening of the dollar, the commodity price falls and the exchange market volatility, negatively affecting foreign currency investments and placements.

This behavior repeated over the years. The SSM reported in 2011 the increase in placements in *soles* by 62%, while the remaining 38% corresponded to placements in dollars (MEF, 2016b). Likewise, in 2015, only a corporate bond issue was made in dollars in the amount of US\$ 97.3 million by the Administrator Jockey Plaza Shopping Center S.A. representing 28.5% of the total issued in all debt instruments by the date (Bonds Corporate, Subordinates, Financial Leasing, etc.) (Vallejo & Barbieri, 2016).

This behavior is repeated in the first half of 2019, when dollar bond placements accounted for only 7%; while placements in *soles* accounted for 93%. This continues to indicate a strong confidence in the domestic market (MEF 2019b).

In relation to the data in this study, a strong and positive correlation was obtained with $R = 8.0$, in terms of the placements of corporate bonds in *soles* on the stock market between the periods 2005-2010 and 2015-2019, indicating that the trend to increase the number of the business sector's bonus emissions is statistically significant, which effectively demonstrates the confidence that this sector has in the country and the strengthening of its economy.

Thus, all the companies evaluated increased the total amount placed, excepting ENEL Distribution Peru, because what is being expressed is the placement in *soles*, however currently this company has a support through intercompany loans to

a maximum amount of US\$ 200 million with a deadline of December 2020. For the companies that make up the group in Peru, this amount facilitates efficient management of the available funds. This group is one of the leading multinationals in the electricity and gas market, operating in 35 countries on five continents. In Peru, it distributes and commercializes the electricity in the northern area of Metropolitan Lima, in the Constitutional Province of Callao and the provinces of Huaura, Huaral, Barranca and Oyón; serving 52 districts exclusively and sharing five additional districts with the distribution company in the southern area of Lima, benefiting more than half of the inhabitants of Metropolitan Lima (Garro, 2019a).

As for the changes in interest rates in both periods, a strong and negative correlation was obtained with $R=-0.7$, indicating that the decrease in interest rates between the two periods, 2005-2010 and 2015-2019, is statistically significant. This is explained by the fact with higher issues of higher amounts, and even an increase in the number of issuers, more confidence is generated in the market by investors, leading to lower interest rates (Robles, Sutton & Vtyurina, 2017).

Out of all the revised companies, an increase in the interest rate was observed in only three, being the most significant Telefónica of Peru, with a difference of 1.9 more than the average rates obtained for the period 2005-2010 (Garro, 2018). This was because their corporate bond placements in the period 2015-2019 hovered between 5 and 8 years, while their placements in the previous period were at longer terms between 10 and 20 years and also for smaller amounts, variables that influence the market for the determination of interest rates (Robles *et al.*, 2017).

In that sense, one of the most difficult problems facing any economy in recent months is the high cost of credit. The recessionary crisis facing any country could be less hard if the interest rate would reduce more quickly, and as with any other price in the various market economies, interest rates are determined by supply and demand forces, in this case, the supply and demand for credit. If lenders' credit supply (S) increases relative to borrowers' demand (D), the price (interest rate) will tend to fall while lenders compete to find a use for their funds (Rivas, 2012).

On the other hand, Galicial, Cárdenas and Rivas (2017) report according to a study in relation to the countries that make up the Latin American comprehensive market (MILA) stock exchange, which are Colombia, Chile, Peru and Mexico. They point out that Peru, though it is one of the lowest economies compared to the rest of the countries that make up MILA, being even 5.6 times below Mexico, has 1.9% more companies listed on the stock market. In the study, Peru ranks second as a country with the largest number of stock companies, and when compared to Mexico it shows to have more culture towards openness, as comparatively more companies are willing to show their information; on the other hand, it has comparatively more companies contributing to the primary sector; behavior that is consistent to be a country under development.

Robles *et al.* (2017) also conducted a comparative study on the capital market in Latin American countries, noting that it is Peru followed by Brazil, the countries in which the negotiations are mainly based on the issuance of corporate bonds, mainly in their domestic markets. And in the case of Peru, it is expressly dominated by financial institutions and a few energy companies.

Financial globalization has opened up favorable financing opportunities for companies based in these countries, now known as emerging, although not many companies have the size and manageability needed to issue international bonds; however, the increasing issuance of bonds as a source of funds for new investments is functioning as a complement to other mechanisms, such as foreign direct investment (López-Herrera, Santillán-Salgado & Cabello, 2019).

It is undeniable that the Peruvian economy has been growing, fighting against the contraction of the global crisis, and the domestic policy situation; however, it has managed to move forward while maintaining low and stable inflation levels. Nevertheless, there is still much to be done, and Galicial *et al.* (2017) mention that Chile and Peru have the highest tax rates by 2 and 3 points above others, in terms of the costs per issue of instruments on the market, and this tax exemption regime has discouraged entrepreneurs from participating in the market, having a negative effect on the business environment of each country.

When large companies participate in the national stock market to obtain finance by placing large amounts in *soles*, they reflect the dynamism in private investment, as well as they demonstrate confidence in the country plan, so it is a way to redeem their debt in dollars and to repay the terms of their repayments to avoid foreign exchange risk, and they also represent a strong support for the domestic market.

Companies seek for financing to be able to carry out their new projects of expansion, growth of their assets or investment in technological advances; in the case of financial institutions the resources are offered to their clients as loans, but recently, new trends have emerged based on the need to protect the planet, looking for alternatives that contribute to preserving nature in the fight against global warming. Green bonds arise, which will be debt instruments with terms higher than one year, differing from the rest in which the funds raised are used exclusively to the financing of new or already ongoing projects, having a positive environmental impact, i.e. that the bond is issued for the purpose of investing in projects related to the environment and climate change (The World Bank, 2015).

Generally speaking, green bonds are fixed income securities issued for capital raising by entities to finance their environmentally friendly projects, such as renewable energy, sustainable water management, prevention of pollution, adaptation to climate change and so on (Tang & Zhang, 2018).

The European Investment Bank and the World Bank were the first two issuers of green bonds in 2007 to finance environmental infrastructure. However, this market internationally starts in 2013, when the International Finance Corporation (IFC) sold a green bond of US\$ 1 billion, opening up this market of issuers in a variety of sectors and with variable credit ratings. It has started with high-performance issues, but it is expected to increase as more corporations participate (Flaherty, Gevorkyan, Radpour & Semmler, 2017).

In 2014, the investment banks: Bank of America Merrill Lynch, Citi, JPMorgan, BNP Paribas, and HSBC, established the principles of green bonds (GBP) these include transparency and disclosure, along with the four components: revenue use, project evaluation and selection process, revenue management and reporting, being widely accepted by the international market. Regardless of the generality of the GBP, it pro-

vides an eligibility criterion and a detailed green taxonomy by sector that third parties can adopt to evaluate the rating of a green bond (Tang & Zhang, 2018).

The companies which issued green bonds and that were reviewed in this study were CAF and COFIDE, being the first state financial firms to issue green bonds with the aim of using resources in projects that promote sustainable productive transformation and green infrastructure, such as energy renewable production (wind, photovoltaic and small hydroelectric plants); information and communication technologies; sustainable forest management; clean transportation; sustainable agriculture and sanitation as wastewater treatment.

At the XXI International Conference on Climate Change (United Nations Climate Change Conference 2015 in Paris-France), Peru was rated as a “particularly vulnerable country”, and the conference established an agreement where measures are included to reduce greenhouse gas emissions through the mitigation, adaptation and resilience of ecosystems as a result of global warming. Already, in 2014, in Peru, the company Rímac Seguros y Reaseguro, invests by acquiring the first green bonds with CFI. Hence, the emissions of green bonds made by CAF and COFIDE are considered an advance that continues to drive such initiatives, hoping that the green bond market will gain greater promotion and consolidation (Quispe, 2018).

The global trend is aimed at promoting and giving importance to all projects that have a positive impact on the environment, so the Lima-Peru Stock Exchange, the British Embassy in Peru, the Mexican Stock Exchange and Climate Partners participated in the development of the Green Bonds Guide for Peru, which was approved on April 30, 2018 and whose objective was to guide companies and institutions to issue this type of instrument (Quispe, 2018; Monasterolo & Raberto, 2018; Flammer, 2018).

Globally, although green bond issuances have initially been by financiers, development banks, as well as investors have been institutional as pension fund managers, pension standardization offices or insurers, what is expected is the awareness and consolidation of this market, in which not only securities of equity, titling and others are issued, but the inclusion of corporations or companies as investors (Flammer, 2018).

According to Tang and Zhang (2018) when reviewing green bond issues along with investment initiatives called climate change initiatives (CBI) on five continents, they noted that stock prices increase significantly on the announcement of the issuance of green bonds, and the reaction of stock markets is stronger for the first time than for repeated issuers, and stronger for corporate issuers than issuers of financial institutions. The issuance of green bonds can help broaden the investor base, as the issuance of green bonds attracts more media exposure and can be used by impact investors to meet their investment mandates (Tang & Zhang, 2018).

This is still a relatively incipient and substantially smaller market than conventional bonds, and its growth promotes sustainability by accelerating the capitalization of the green bond market; the results can be seen through macroeconomic (and institutional) improvements in the pursuit of sustainability through the financing of green bonds; this growth is able to close the gap between economic factors and sustainability and reduce the costs of companies in the search for investments in sustainability by promoting the issuance of green bonds as financing alternatives to lower cost (Tolliver, Keeley & Managi, 2019).

Peru is on track, making efforts such as making changes to regulations (Law No. 30050, adopted in SSM resolution No. 021-2013-SMV/01: reduction of formalities and costs in the issuance of securities on the market) to make them more open and participatory, thus encouraging the entry of more companies to the stock market, and increasing the financing alternatives that direct efforts towards environmental protection, where projects that improve the environmental impact are financed, helping investors who are sensitive to the environment.

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