# Credit Information in Emerging Markets: The Rating Agencies and Credit Risk Reports, Peruvian Experience

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### **Abstract**

This paper seeks to develop a literature review within the main aspects of credit information in emerging markets, important aspect considering that several companies, including the small enterprises, are looking forward to "go" to capital markets. Thus, we will analyze the role of rating agencies and credit bureaus (credit risk report) in the Peruvian market, considering the current state of economic growth that comes through and, the potential of capital market that comes with MILA (Integrated Latin American Market). Besides, this information will become relevant in the following months, because the actual financial crisis in several countries all over the world (focus in Europe, but it could move to some BRICS – Brazil, Russia, India, China and South Africa – or Latam Countries) has generated a new map in "rating scores" (Note 1) so the questions that we tried to answer is if this unique change is relevant? Or it should be complemented in order to have a significant impact in the market and for the investors.

Keywords: emerging markets, rating agencies, Peruvian market, APP (Note 2) or PPP

# 1. Introduction

According to the main conclusion from Stiglitz (et al 2002), the Central Credit Information is an institutional response that aims to solve the information asymmetry and allows expanding credit ordered and transparent. This aspect becomes very important in the actual situation because, investors focus not only in local transactions (US or Europe) but also; they are doing operations and "trades" in offshore locations such as Asia or Latin America countries (Peru, Colombia or Mexico). To understand the implications of asymmetric information in financial markets is necessary to start from the assumption that a debt contract establishes rights and obligations between borrower and lender.

First, the uncertainty of a project limits the borrower's repayment capacity and is directly related to its cost of funding. Second, know the real motivation of the borrower and its "good faith" to fulfill the contract. Thus, there is asymmetric information in a financial contract where the borrower has information that the lender ignored (Bebczuk, et al 2000). In particular, asymmetric information is considered a market failure that can take any of the following ways (Ausubel, L., 1997):

- **a.** Adverse Selection: This focus in the fact that, in financial market (lender) typically have limited knowledge about the creditworthiness of borrowers. That is, the latter are not in the ability to properly evaluate the creditworthiness of borrowers. It will generate a result for the economy inefficient. Borrowing costs that are imposed to borrowers of good quality will be higher, while lower quality will benefit from a lower cost because the cost will be charged the market average.
- **b.** *Moral Hazard:* This situation appears when one of the parties to a transaction (lender) cannot know the nature of the investments held on creditworthiness (magnitude of risk of the project) and incentives to fulfill their obligation. This type of information asymmetry has a direct impact on the economy, since the amount of money invested in the market will be lower, lenders will be reluctant to credit approval.

The problem of adverse selection and moral hazard refers to situations where one party to a transaction has private information about a feature key to the relationship. So, the role of Central Risk should be to cover the market failures caused by information asymmetries in financial markets.

The motivation of this paper is focused in how necessary the investors need the information about the financial

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assets that are interested on, because it will be analyzed to take a decision about when to buy or sell financial assets. This process sounds short but, involve a lot of process and the rating agency information is one input that is used to take a decision about leave or maintain several financial assets in a portfolio, why?, because in the investment policy there are some "coverants" called "stop loss" or signs and when a financial assets move its rating, the investor should review its signs in order to take a decision and modify or maintain this portfolio.

## 2. Rating Agencies

The Role of Rating Agencies is to provide the market with an independent evaluation of borrower creditworthiness, based on company fundamentals, making it easy for investors to compare different potential investments. (Langohr 2008) This, help capital market players (investors, issuers and regulators) to make better investment decisions based on relevant information about the credit quality of issuedsecurities and thus drive efficiency, stability and transparency in the market. "The risk rating expresses the view of an entity, independent and specialized in the analysis of qualitative and quantitative, on the ability and willingness to repay the issuer to meet its financial obligations arising from the issuance of securities" (Standard & Poors, et al 2011).

The main objective of the risk rating is an evaluation of the quality of securities issues, given the ability to pay the same on the issuer. The three main Rating Agencies operating in international markets are: Moody's, Standard & Poor's and Fitch, which all together accounts for 94% of the ratings of structured instruments (se consider backed assets securities) in circulation and 97% of all ratings in circulation issued by agencies recognized by the SEC (U.S. Securities and Exchange Commission. June 2011). There are also much smaller agencies normally target specific market segments (Hunt, et al 2008).

# 2.1 Industry Structure and Development

The credit rating industry in the US is dominated by three global players: Moody's Investors Service Inc., Standard and Poor's Ratings Services (S&P) and Fitch (Dittrich, 2007). These companies are the domain of much of the market and with other agencies such as AM Best Company, Inc., DBRS Ltd., Egan-Jones Rating Company, Japan Credit Rating Agency, Ltd., Kroll Bond Rating Agency, Inc., Rating and Investment Information, Inc. LLC Realpoint, are the all institutions registered with the SEC as NRSROs under the Reform Act of Credit Rating Agencies, 2006 (U.S. Congress, 2006b).

In terms of market share for instance, in 2005 Fitch rated 66% of all debt securities issued in the world (Fimalac Group, et al 2006).

From its beginnings in the twentieth century, the credit rating market was limited for many decades the United States. In 1909, John Moody formed the first rating agency, the predecessor of the current Moody's Investors Service. From the early years of the 1900s, industries began to need more capital than they could raise through media "relational", rating agencies helped the investors who did not know the people involved in a business assess the costs and benefits of investing in a new business (Hill, et al. 2004).

The predecessor of Standard & Poor's was formed in 1916 by the Company founded by Henry Poor Poor as providing information on the first types of traded bonds, railroad bonds. In 1941, the merger of Standard Statistics and Poor's, another rating and information company, resulted in the formation of Standard & Poor's.

In 1960, control of the company was taken over by McGraw Hill. Meanwhile Fitch, who began calling bonds in 1924, is owned by French conglomerate FIMALAC.

United States was destined to the use of credit ratings because the major development projects that were implemented were financed with bonds. The credit rating market expanded rapidly between 1909 and 1930. In the 1940s, 50 and 60 rating agencies faced a scenario of low demand and low volatility with a strong economy and limited circumstances of default (Partnoy 1999).

A second period of rapid growth began in 1970 and lasts until today. Both periods of expansion were caught up in situations of high volatility and default in the bond market, while increased regulation. This expansion was accompanied by further internationalization and globalization of risk classification. Between 1960 and 1970 the first issues of states were described by U.S. Agencies.

In 1980, both Moody's and S&P began to express an opinion on bonds in Europe and Japan. Consequently, the development of both companies led to the opening of offices in Europe, Japan, and later in many emerging market countries.

Thus, "the importance of rating agencies in financial markets was unable to make a public offer of bonds without a credit quality assessment. In other words, according to Joseph Lieberman, U.S. Senator by the Democratic Party, "The rating agencies are "very important" to raising capital and liquidity, are the soul of corporate America

and the Capitalist Economy". The rating affects a company's ability to obtain funds, affecting the share price. "You can highlight five factors driving the growth of the industry, especially since the early 1970" (Gras, et al 2003).

First, there have been structural changes in financial markets. The number of participants and anonymity has increased, while investment strategies have become more complex and diversified. Second, disintermediation meant that the capital market is seen as a source for access to credit rather than banking institutions to the development of new products created through the securitization of assets. Third, countries have increasingly financed through credit markets. The sovereign debt ratings, in turn, have been the basis for local businesses are assessed by rating agencies. Fourth, the U.S. focus on capital markets has set the standard worldwide. Therefore, an important aspect of the globalization of financial markets today is the risk rating. Finally, ratings-based regulation has increased in the United States and since 1990 both in developed and developing those.

These five factors contribute to the Rating Agencies, either by increasing the complexity and information asymmetries or by increasing the number of available debt and demand induced by regulation. The increase in market size has been accompanied by innovation of products for the capital market. Now the risk assessments are not limited to bonds but also of sovereign ratings also qualify for bank loans, or credit scores are made to the issuer and banking institutions (BIS et al 2000).

In addition, the rating of structured finance products has become an important part of the activity of credit rating. For example, over 40% of the income generated by Moody's ratings concept is within the category of structured finance ratings.

In the case of Fitch line of business is more important and essential factor of growth (Fimalac Group, 2006 and Moody's Corporation, 2006). The corporate bonds ratings and structured instruments emissions are classified on a scale with alphanumeric designations. For Standard & Poor's and Fitch Ratings, AAA is the highest rating, followed by AA, A, BBB, BB, B, CCC, CC, C and D, where D refers to an instrument that has defaulted, while to Moodys, Aaa is the highest rating, followed by Aa, A, Baa, Ba, B, Caa, Ca, C (Note 3).

S&P and Fitch Ratings usually modified the grading scale by a suffix, + or -, creating nuances within eachlevel scale. In addition, Moody's adds numerical modifiers 1, 2, and 3 to each generic rating classification from Aa through Caa.

The following table shows the various credit rating scales of Standard & Poor's with their respective equivalents to Moody's and Fitch (Note 4).

	Standard & Poor's	Moody's	Fitch
Investment Grade	AAA	Aaa	AAA
	AA+	Aa1	AA+
	AA	Aa2	AA
	AA-	Aa3	AA-
	A+	A1	A+
	Α	A2	Α
	A-	A3	A-
	BBB+	Baa1	BBB+
	BBB	Baa2	BBB
	BBB-	Baa3	BBB-
Expeculation	BB+	Ba1	BB+
	BB	Ba2	BB
	BB-	Ba3	88-
	B+	B1	B+
	В	B2	В
	B-	B3	B-
	CCC+	Caa1	CCC+
	ccc	Caa2	ccc
	CCC-	Caa3	CCC-
	CC	Ca	CC
	С	С	С
	D		D

Figure 1. Rating agencies ranking (Note 5)

Resource: Bank for International Settlements and Thomson Reuters

# 2.2 Functions of Risk Assessment Agencies (Note 6)

The rating agencies focus in review some fundamental and technical aspects in order to try to predict the probability of default for all types of debt instruments and issuers, but nowadays they have focused their evaluation in several indicators and their results are not so clear, so, we consider important to change the word "predict" for "prevent".

The SEC defines these companies that provide an opinion (Frank Dodd act include changes to the Agencies) on the level of creditworthiness of an entity and financial obligations issued (bonds, preferred stock and commercial paper). That is, reflects the likelihood of timely and full payment of the debt securities in accordance with standardized quality categories according to an analysis of qualitative and quantitative elements. The focus is not necessarily in the probability of default absolute but in relative risk of different debt instruments. In addition, credit rating usually reflects a long-term trends and do not respond to fluctuations in short-term market (Hill, et al 2004).

In financial theory neo-institutional rating agencies can be represented as information intermediaries who are consulted in the course of a transaction in order to reduce information asymmetries between the parties concerned (Dittrich, et al 2007). In other words, the rating agencies create value by reducing information costs and provide greater transparency in capital market, so the questions is what happened when they evaluated the US and European banks in 2007 (previous to the crisis) or when they give good qualification to Spain, Italy, Portugal and Greek?

The theory (Note 7) indicates that among the factors that directly influence the performance of the intermediary role of information, is the methodology used to conduct risk assessment and criteria within the same to ensure that the opinion given is independent and objective. Today and outside the intermediary role of information, the risk rating is associated with regulation. Risk assessments serve as instruments of regulation in financial market supervision. In this sense, the rating agencies assign a rating not only determined but at the same time issue a permit or authorization to access the capital market (Partnoy, et al 1999).

The certification function has its counterpart in the private sector, where ratings are used as criteria for risk management in institutions such as banks or investment funds.

In the absence of control, an issuer may act opportunistically, taking risk-prone decisions that favor them and reduce the expected return of the investor. The shares of the issuer are expensive and difficult to observe (hidden actions). Therefore, the rating agencies keep track of these actions and issue periodic updates of their initial ratings. (Dittrich, et al 2007).

# PAYMENT, INFORMATION COMPANY RATING AGENCY INVESTOR RATING, CARACTER RATING, CARACTER TRUST

Figure 2. Process follow by rating agencies

Fuente: Dittrich, F., the Credit Rating Industry: Competition and Regulation, 2007.

The dynamics within the intermediation of information is: the issuer (COMPANY) sells a debt to an investor. The investment received by a given debt security will be greater in proportion to the creditworthiness of the issuer. At this point, the rating agency comes into play, as payment is received by the sender information. In return, the information is analyzed by the body and condensed in a credit rating of the issuer.

The rating is communicated to investors. Investors are convinced of the classification because the agency is trustworthy. As a result, the opinion on the creditworthiness of the issuer becomes a lot safer. As long as the price paid by the issuer to the rating agency is less than the value of payments, the issuer will buy rating. During the life of a debt, the rating agency usually follows up and updates the qualification.

Thus, issuers gain a favorable reputation in the market to work under the permanent supervision of the rating agency (Kerwer, et al 2002). Risk assessment defines the process of issuing debt. This is important for institutional investors that establish criteria for investment decisions that rely on the opinions of recognized agencies (Hill, 2004). The ratings that meet the investment process enjoy a greater value. Investors have to incur higher transaction costs in buying unrated bonds. Therefore, they are less likely to invest in these bonds, if there are many alternatives duly authorized. The effect is independent of the issuers, because the cost differential occurs for the side of the investor.

The value of standardization is limited to a few rating agencies that have similar classification methods. The ratings agencies with little reputation cause higher transaction costs for investors the most recognized qualifications. Independent of the value of information, issuers will focus on high quality grades. In general, benefits can be explained as well as for qualified companies (issuers) and investors in the market are in a dynamic capital market. On the one hand, from the perspective of the issuer, would get better financing terms, thanks to the support of the assessment issued and the use of the stock market as an efficient means to accomplish it. On the other side and from the perspective of the investor, would make better investment decisions with the information available. Finally, the main functions of credit rating agencies can be divided into three groups (Dittrich, et al 2007) and are presented as follows:

First, the role of information: the rating agencies reduce information asymmetries between issuers and investors by generating timely information. They also provide a mechanism for issuers to disclose private information. Investors benefit from economies of scale in information production. Second, the certification function: State used the credit ratings for regulation. The risk ratings also serve as a private tool of risk management. Third, the role of standardization: Credit ratings provide a framework for the process of issuing debt and investing in it. Investors can also use credit ratings to make a simple comparison between the risks they can take.

Table 1. Functions of credit rating

Functions	Issuers	Investors	Regulators
Role of Information	Information Brokering:	Economies of scale	
	* Information Process	in the production of	
	Publication of private information	information	
Role of Certification	Private Risk Management		Classifications based regulation
Role of Standardization	Process Credit/Investment	Comparison of Risk	

Fuente: Dittrich, F., the Credit Rating Industry: Competition and Regulation, 2007.

### 2.3 The Risk Rating in Peru

In the Peruvian Market, according to Title X ("EmpresasCalificadoras" (Note 8) – Rating Agencies), Chapters I (General Provisions) and II (Procedure Classification) of Legislative Decree No. 861, Law on Securities Market regulates regard to the risk rating agencies and establishes corresponding to the Securities Superintendence (EX-CONASEV, nowadays Superintendecia del Mercado de Valores - SMV) make rules about its activities and the requirements for obtaining the authorization of organization and operation in Peru (Note 9).

Besides, the regulation states that "the risk classification is intended to contribute to the transparency of the market serving as an additional tool in the analysis of information available on the market by its participants and, on the other hand, it should be noted that risk rating is an essential element in making decisions of market participants, to the extent that the opinion reached is sustained in the objectivity and independence of the

classifier, it being necessary to establish requirements for the grading and its members.

It follows that this regulation seeks to establish a general outline ordered to become a relevant tool for making investment decisions in the market, minimizing situations of asymmetric information.

Within the Peruvian market is mandatory for legal persons to issue a public offering of debt securities should hire the services of at least two rating agencies, independent of each other, so that made the classification of such securities. Companies benefiting from this scheme are:

- **a.** Apoyo y AsociadosInternacional SAC (AAI): Founded in 1993 and has the backing of one of the Fitch Ratings international rating agencies leading the world in all aspects of the credit value. Fitch has a presence in 75 countries, 40 offices worldwide. AAI has authorization to operate by Resolution No. CONASEV 201-95-EF/94.10 of May 23, 1995. It is registered with the Registrar of Companies Rating Agencies of the Superintendency of Banking and Insurance (SBS) by Resolution SBS No. 176-98.
- **b. CLASS &Asociados S.A.:** Founded in 1994, dedicated to the classification of financial instruments within the Peruvian market in accordance with the provisions of the Securities Exchange Act. The company is duly registered in the Public Registry of Securities and Intermediaries CONASEV with code No. 06-950003 (Registrar of Companies Rating Agencies).
- **c. PACIFIC Credit Rating:** Founded in 1993 as Jasaui& Associates Economists, then becomes Peru's Duff & Phelps (DCR Peru) and due to the merger of Fitch IBCA and DCR, DCR Peru became independent and became Pacific Credit Rating (PCR) and has offices in Bolivia, Ecuador, El Salvador, Guatemala and Peru.
- **d. Equilibrium:** Founded in 1996 and was a partner at Thomson Bankwatch to November 2000. In November 2007 he joined Moody's Investors Service Inc. which provides technical support and training.
- **e. Latin America MICRORATE SA:** MicroRate Latin America provide opinion related to the "risk", and is the only specialized microfinance sorter has been authorized as sorting of regulated financial institutions in Peru (Note 11).

In the Peruvian market this service is used not only for private or public companies but also, for financial institutions, the government (global bonds) and specific project called PPP (Public, Private, Partnership or APP (Note 12) – AsociaciónPúblicoPrivada). Besides, usually the cost of the money is linked or related with the rating, it means, higher rating could represent a lower rate and lower or bad rating could represent a high rate.

These rating agencies operate in a fairly small market in which financial structure products still occupy a reduced share of security's emissions, both by number and by amounts. Peruvian structured finance emissions make use of a relative small number of underlying assets, being future cash flows, as receivable accounts and rent incomes, tolls and mortgages, among the most important. These assets are used as enhancers which lead to higher quality ratings and thus allow issuers to obtain lower financial costs to carry on its business purposes, with ratings that are narrowed from AA+ to AAA.

# 3. Credit Risk Reports in Peru ("Centrales de Riesgo")

Risk Reports Entities (Note 13) are specialized institutions that are intended to provide information on the level of indebtedness and credit history of individuals and corporations (ASBANC – Bank Association - , et al 2011). The principal entity in this kind of information is the SBS.

This information related to the obligations and financial background, business, tax, allows identifying individuals with problems in meeting its debt obligations but also those serving time.

That is, the data analysis is used as a tool to decrease the effects of information asymmetries in the financial market and reduce uncertainty about future payments of an obligation (Stiglitz, et al 2002).

The importance of credit bureaus in economic activity is based on that by reducing the uncertainty of failure, funding is not as expensive, which means a reduction of credit risk, a positive impact on private savings, which turn impacts on economic growth. In other words, "... the information for debtors managed centrally and thus enables better decision-making of economic agents ..." (ASBANC – Peruvian Bank Association - , et al 2011).

In Peru, there are private Central Risk and Credit Risk of SBS which is public and is governed by the provisions of Articles  $158\,^{\circ}$ ,  $159\,^{\circ}$  and  $160\,^{\circ}$  of Law N  $^{\circ}$  26702. Credit institutions report users to be included in the Credit Risk of SBS, while private entities most important are:

**a. Informa del Perú:** A subsidiary of the Spanish company INFORMA D & B belonging to CESCE Group, provides business, financial and marketing people and businesses to increase awareness of customers and suppliers and minimize business risk.

- **b. Equifax Peru:** Strategic information of debt.
- **c. XCHANGE Peru:** Provides solutions to the activities of the entities of the financial system with tools designed for better use of their information.

The central risk has become a very important aspect in the credit risk evaluation because it has historical information of the borrower and shows related activity such as taxes, payment or services, aspects relevant to analyze the character.

It is important to indicate that the credit risk is mentioned in Basel I, II and now III, so their relevance is high priority. Besides, the central risk shows the qualification of the debt, that it is an input that each bank generates internally.

### 4. Comments and Conclusion

The access to the information (flow to the market and to the investors) should consider ethical aspects in order to guarantee transparency and help to reduce and mitigate the lack of access showed in financial and capital markets in several countries in Latin America. Besides the corporate governance principles should consider some aspects related to how manage public and private information in order to assurance the correct access and use of it.

It is important to mention that "Kotlikoff (et al 2006) asked the question a few years ago as to whether the United States was already bankrupt and Thakor (et al 2006) who discussed the work of Kotlikoff (et al 2006) disagrees, but cautions against excessive borrowing by the U.S. Treasury". This aspect represent a significant issue to discuss because US lost it AAA, and the discussion should focus in why?, and the preliminary answer could be the relation between its debt and GPD relation than is higher than 1 or more than 100%. It means that S&P reviews its qualification or "rating" because this ratio more to this level?, we do not think so, we think than the change is a response for other specific events that appears before, in 2007 and 2008. So, if we analyze US as a company, if the sales are lower than the debt, the company is bad but we have to analyze the overall and in the overall we have to review the whole process that the rating agency are following. Because they have to help us to "prevent" it means proactive instead of "reactive". Several US banks would have found this aspect positive (Merry Lynch for instance).

"The reasons for ratings adjustments vary, and may be broadly related to overall shifts in the economy or business environment or more narrowly focused on circumstances affecting a specific industry, entity, or individual debt issue" (Note 10). This aspect should be followed in the emerging "solid" economies in order to maintain their stability. The capacity to adapt and implement new regulation is a positive aspect that regulators in Peru, Chile and Colombia are following in order to obtain "standards" that tries to guarantee stability and increase for instance, liquidity or turnover of the equity or debt negotiate in their capital markets (maybe, in future we could talk about integrated capital markets or merged markets). One example is the Market Marker program in Peru and Colombia, and the derivatives OTC financial products in Chile (OIS).

What can affect the credit risk?, there are several answers, for instance new competition or technology, but a change in its qualification will impact in its credit risk because maybe the credit lines of the entity will reduce or modified. So, the regulators will have an active participation in order to control or supervise not only the companies listed but also, the suppliers of them, in this case for instance the Credit Rating Agencies.

Lawerence Ausubel has written about incomplete information in the past, and he was right because without information or incomplete information the task of the investor becomes complicate and the credit risk could increase, why?, because if the borrower did not manage efficiency his or her credit cards, the bank or lender should cover this debt and, if it generates a negative impact in the P&L of the entity and, if the number of borrower will represent a significant portion, the amount used to "cover" will be so high that the entity should take a decision instead of increase their capital (Basel III) or sell the debt and lose money.

In emerging markets the credit rating agency are used to giving more assurance to investors, for instance in Peru the number of companies that issued financial instruments (equity or bonds) was not relevant 10 years ago and, recently between 2006 and 2012 the volume has been increasing significantly. A clear example is the bonds from Añaños Group – Ajeper (Kola Real) or the Peruvian mining company Volcan, listed in the stock change of Lima or BBVA bonds.

Credit Report service is a powerful tool to exchange and have information. In Peru it is used to centralize information from borrowers. In the future, include other aspects such are sales will be a positive aspect for lenders, because the transparency is useful in order to develop the markets.

In future, the access to the market information will be significant asset that the financial companies have to manage, and in this field the operational risk theory and tools will have an important role of determining adequate capital for banks and for instance incorporate aspects of stakeholder theory.

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### References

- Ausubel, Lawrence M. (1999). *Adverse Selection in the Credit Card Market*. Working Paper, Department of Economics, University of Maryland, June.
- Bebczuk, R. (2000). Información asimétrica en los mercadosfinancieros. Ediciones AKAL, 2000.
- Brooks, R., Faff, W. R., Hillier, D., & Hillier, J. (2004). The national market impact of sovereign rating changes. *Journal of Banking and Finance*, 28(1), 233. http://dx.doi.org/10.1016/S0378-4266(02)00406-5
- Cantor, R., & Frank Packer. (1995). The Credit Rating Industry. *Journal of Fixed Income*, 5, 10-34. http://dx.doi.org/10.3905/jfi.1995.408153
- Dittrich, F. (2007). The Credit Rating Industry: Competition and Regulation.
- Ederington, Louis H., & Jess B. Yawitz. (1987). The Bond Rating Process. In Edward I. Altman (ed.), *Handbook of Financial Markets and Institutions* (6th ed.). New York: John Wiley & Sons.
- Fridson, Martin S. (1999). Why Do Bond Rating Agencies Exist? Extra Credit (Merrill Lynch).
- Galil, K. (2004). Adverse Selection, Moral Hazard and the Term Structure of Default. EFMA 2004 Basel Meetings Paper, 2004.
- Hill, C. (2004). Regulating the Rating Agencies. Washington University Law Quarterly, 85, 43.
- Hunt, J. (2009). Credit Rating Agencies and the "Worldwide Credit Crisis": The Limits of Reputation, the Insufficiency of Reform, and a Proposal for Improvement. *Columbia Business Law Review*, 2009(1).
- Klimczak, K. (2005). *Rationales for corporate risk management form Stakeholders' perspective*. Retrieved from http://mpra.ub.uni-muenchen.de/4242/1/MPRA\_paper\_4242.pdf
- Kotlikoff, L. J. (2006). Is the United States Bankrupt? Federal Reserve Bank of St. Louis Review, 88(4), 235-249.
- Langohr H., & Langhor P. (2009). The Rating agencies and their credit ratings: What They Are, How They Work, And Why They Are Relevant.
- Majnoni, G., Ferri, G., & Liu, L. (2000). How the Proposed Basel Guidelines on Rating-Agency Assessments Would Affect Developing Countries. World Bank Policy Research Working Paper No. 2369.
- Moody's Investors Service. (2009). *Rating Symbols & Definitions*. Retrieved from http://www.moodys.com/researchdocumentcontentpage.aspx?docid=PBC 79004
- Sánchez, A. (2001). Información Asimétrica y Mercados Financieros Emergentes: El análisis de Mishkin, Revista Análisis Económico. *segundo semestre año, XVII*(034).
- Standard & Poor's. (2011). *Guide to Credit Rating Essentials: What are Credit Ratings and how do they work?* Standard and Poor's Financial Services LLC.
- Stiglitz, J. (2002). La Economía del Sector Público. Antoni Bosch, editor, S.A, Terceraedición.
- Stulz R. M. (1996). Rethinking Risk Management. *Journal of Applied Corporate Finance*, *9*, 8-25. http://dx.doi.org/10.1111/j.1745-6622.1996.tb00295.x
- Swann, Nikola G. (2011). Research Update: United States of America Long-Term Rating Lowered To 'AA+' On Political Risks And Rising Debt Burden. Outlook Negative. Standard & Poor's Global Credit Portal Ratings Direct. August 5.
- Thakor, A. (2006). Is the United States bankrupt? Commentary. *Federal Reserve Bank of St. Louis Review, 88*(4), 251-257.

### Notes

- Note 1. For instance US is now AA instead of AAA for S&P or Spain Baa3 according Moody's.
- Note 2. Type of business model in emerging markets. Asociación Publico Privado (Private Public).
- Note 3. Moody's Investors Service, rating Symbols & Definitions, June 2009.
- Note 4. S&P uses letters and positive and negative symbols. Moody's uses letters and Numbers.
- Note 5. Information provided by S&P web site. "The general meaning of our credit rating opinions is summarized below:
  - 'AAA'—Extremely strong capacity to meet financial commitments. Highest Rating.
  - 'AA'—Very strong capacity to meet financial commitments.
  - 'A'—Strong capacity to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances.
  - 'BBB'—Adequate capacity to meet financial commitments, but more subject to adverse economic conditions.
  - 'BBB-'—Considered lowest investment grade by market participants.
  - 'BB+'—Considered highest speculative grade by market participants.
  - 'BB'—Less vulnerable in the near-term but faces major ongoing uncertainties to adverse business, financial and economic conditions.
  - 'B'—More vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments.
  - 'CCC'—Currently vulnerable and dependent on favorable business, financial and economic conditions to meet financial commitments.
  - 'CC'—Currently highly vulnerable.
  - 'C'—Currently highly vulnerable obligations and other defined circumstances.
  - 'D'—Payment default on financial commitments.

Note: Ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories".

- Note 6. See BIS (1999; 2001a; 2001b). Since the January 2001 proposal constitutes a revision and modification of the June 1999 proposal, I will refer to the January 2001 version as the BIS proposal.
- Note 7. Other studies of the industry can be found in Ederington and Yawitz (1987), Wilson (1987, ch.9), Cantor and Packer (1995), Fridson (1999), Partnoy (1999), and BIS (2000).
- Note 8. Normfrom Superintendencia del Mercado de Valores SMV (Ex Conasev) nº 74-1998-EF/94.10
- Note 9. SMV was created with the Law N° 29782
- Note 10. http://www.standardandpoors.com/ratings/definitions-and-faqs/en/us
- Note 11. art. 136 in the Peruvian banking regulation.
- Note 12. It is a type of business model used to give and run some specific project with social impact to private companies, usually focus in infrastructure and the whole project could obtain resources in capital or money market depending of the type of the project, condition, time, and other aspects. In Peru the law reference is N° 1012.
- Note 13. Law 26702, Law 27489 and modified Law 27863