

How High is the Risk of Peruvian Saving and Credit Cooperatives?

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Abstract: *In 2019, a new regulation regarding, the supervision of all Peruvian Saving and Credit Cooperatives entered in force. Despite allowing a grace period to allow all such Cooperatives to comply with the new requirements, the Superintendency started to delist institutions on a monthly basis, halving the initial number in a few years. This process, which is still ongoing, has raised concerns throughout the country about the reliability of its microfinance system.*

This study evaluates the bankruptcy probability of Peruvian Savings and Credit Cooperatives after the change in regulatory supervision. It seeks to assess systemic vulnerabilities and propose improvements to supervisory mechanisms. The research applies internationally recognized models of financial distress prediction to a dataset of cooperatives categorized by total active. Results reveal that a significant portion of cooperatives show consistent financial distress signals across multiple models. The study identifies systemic inconsistencies in model outputs. The research underscores the need to reform supervision practice through predictive tools tailored to microfinance institutions.

Keywords: Bankruptcy, saving and credit cooperatives, financial distress indicators, microfinance, financial supervision, systemic vulnerabilities

Key Messages

- In recent years 200+, out of about 400 Peruvian credit cooperatives went bust
- This paper analyses the Peruvian saving and credit cooperative system
- The analysis uses some among the best-known bankruptcy indicators
- Some cooperatives show consistent financial distress signals across multiple models

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Introduction

In 1959, thirteen directors of Savings and Credit Cooperatives (in the following SACCO or Cooperative), led by Father Daniel McLellan of the Catholic Maryknoll order, on behalf of the Peruvian Episcopal Assembly, founded in Lima the *Federación Nacional de Cooperativas de Ahorro y Crédito del Perú* (National Federation of the Saving and Credit Cooperatives of Peru, FENACREP or the Federation). Its main purpose was the promotion and development of the Savings and Credit Cooperatives, to provide financing opportunities to the lowest part of the economic pyramid and assisting with their entrepreneurial ventures. The first tasks accomplished by the Federation, with the support of USAID, were to standardize a model statute for all its associated Cooperatives, to translate and adapt the US-based rules to a Hispanic environment, as well as promote the formation of new Cooperatives throughout the country. Since 1992, the Peruvian Congress granted FENACREP with the power to supervise the entire Peruvian SACCO system. In 2018, the Congress approved bills 350/2016-CR and 1161/2016-SBS, which appoint the *Superintendencia de Banca, Seguros y Administradoras de Fondos de Pensiones* (Superintendence of Banking, Insurance and Pension Fund Administration, in the following SBS or the Superintendence), a governmental institution, as the new supervisor of the sector. The consequence was transferring the supervision of SACCOs under the government's responsibility, similar to other financial institutions, ten different types of banks, insurance companies, and pension funds.

As at December 31, 2018, FENACREP counted with 139 associated SACCOs. Since January 1, 2019, the day the bills entered in force, the supervision of all Peruvian Saving and Credit Cooperatives passed under SBS. The entry criteria of SBS were purposely loose, in order to allow the many unsupervised SACCOs to formally entering the Peruvian financial system. That resulted in increasing the number of supervised Cooperatives to 437. At the same time, SBS applied much stricter controls to the SACCO sector, requiring many monthly or quarterly reports, which it rigorously started to revise. However, in order to allow all Cooperatives the time to adapt to the new regime, SBS allowed a grace period until end of 2021 for the large SACCOs, mid-2022 for the medium-sized ones, and December 2022 for the small.

The strict control arrangement resulted in SBS intervention on several Cooperatives. The reasons for intervention are inactivity of the cooperative or reduction of the effective capital by more than 50% on a yearly basis. The cause of inactivity constitutes one of the key criteria considered by the SBS when intervening in a COOPAC. This cause arises when the supervised entity ceases to carry out activities inherent to its corporate purpose, such as accepting public deposits or granting loans, over a prolonged period. The absence of substantial operations, physical closure of offices, or failure to attend to members demonstrates an operational disruption that jeopardizes the interests of the members and the stability of the cooperative financial system. In accordance with current regulations, this condition enables the SBS to intervene, declare liquidation, or cancel the registration of such entities, in compliance with the legal framework established by Law No. 30822 and its specific regulations (SBS, 2019).

Effective capital is a key indicator of the financial soundness of a savings and credit cooperative, as it represents the capital base used to determine operating limits and compliance

with regulatory requirements. Its calculation is carried out in accordance with the provisions of the SBS, by adding components such as paid-in share capital, the cooperative reserve, accumulated surpluses, voluntary reserves, and generic provisions for loans classified as standard portfolio—up to a maximum of 1% of the portfolio. From this total, losses from previous and current fiscal years must be deducted, along with any provisioning shortfalls not recorded in the results and without an approved waiver from the SBS, as well as equity interests in cooperatives or entities that provide services to members, require consolidated financial reporting, or are considered subsidiaries. It is important to note that surpluses can only be included in effective capital when there is an explicit capitalization agreement approved by the General Assembly or the Board of Directors. Furthermore, the regulation mandates that cooperatives must maintain a cooperative reserve of no less than 35% of their share capital, allocating at least 20% of annual surpluses to such reserve, unless their bylaws specify a higher percentage (SBS, 2022).

The intervention is a preliminary step that can bring to disqualification from the supervision of SBS. The ‘open doors’ policy initially adopted by the Superintendence, matched with rigorous controls, led to several dismissals of Cooperatives, reducing the number of supervised SACCOs from 437 in September 2020, down to 287 in December 2023, 257 in August 2024, 249 in October, 247 in November 2024, and 246 in December the same year. It appears that the winding up of Peruvian Saving and Credit Cooperatives has reached a much-sought plateau. In addition, the interest rates proposed to savers, although still being high with respect to the rest of the Peruvian and international financial system, diminished considerably, from two-digits, quite frequent during the FENACREP period, to single digit, something that leads to more sustainable financial obligations for the whole sector.

Literature Review

2.1 Credit risk

Bandyopadhyay (2016:1) defines credit risk as "the possibility that a borrower or group of borrowers will fail to meet their contractual obligations and the future losses associated with this." Paucar-Escobar (2022:3) also defines it as "the probability that a borrower will fully or partially fail to meet its contractual obligations regarding interest and/or capital." For this reason, financial institutions have turned to finding solutions and strategies that help manage the risk of their own activity. Lapo-Maza et al. (2021) highlight the importance of studying credit risk factors in financial institutions, due to the negative impact of the existence of each non-performing loan, affecting the profitability and solvency levels of financial institutions. This can lead to the deterioration of the Financial System and the bankruptcy of financial institutions.

Likewise, the Basel regulatory frameworks, the stress tests it requires, the establishment of financial and banking authorities, information and transparency requirements are just some of the instruments that have been implemented in recent years to guarantee the fluidity of credit operations (Baesens et al., 2016). However, these support mechanisms do not guarantee their stability and permanence, so sometimes banks and other financial institutions go bankrupt,

harming at the same time those ordinary people who trusted them in good faith. After many years of borrowing and lending money, the problem remains unresolved.

According to the Superintendency of Banking, Insurance and AFP (SBS, n.d.), there are several types of credit risk that affect the stability of financial institutions, including:

- Default risk, referring to the possibility that the borrower does not comply with interest and/or capital payments on the established dates.
- Individual credit risk or solvency risk, on the other hand, is related to significant exposures to a single debtor, which increases the lender's vulnerability.
- Portfolio risk is inherent to the overall composition of the credit portfolio, and is related to factors such as the concentration of loans in specific economic sectors, geographic regions or groups of loans susceptible to the same economic risks.
- Rating risk refers to the possibility that the borrower or issuer modifies its credit quality during a given period, which affects the perception of risk by the financial institution.

2. 2. Savings and Credit Cooperatives

Cooperatives are institutions created specifically to grant loans to economic entities that are widespread in the region and that traditional banks have practical difficulties in serving. These institutions offer accessible financing adapted to the needs of small, micro-enterprises and independent workers, who are frequently excluded from the formal financial system due to high collateral requirements and bureaucracy in commercial banks. In addition, savings and credit cooperatives differ from other financial entities by being non-profit organizations, specifically designed to benefit their members. These cooperatives are owned by their members and are managed in a democratic manner. This structure allows profits to be reinvested in the form of reduced fees, higher savings rates, and lower loan rates, rather than distributed as profits to outside shareholders. According to Angulo Villareal (2019), this significantly reduces the risk of the organization, transferring it to investors. Furthermore, regardless of the amount of money contributed, members have one vote in the general assembly and not a number proportional to the money invested. Risk and profitability are combined to adapt to the needs and tastes of investors.

Cooperativism in Peru emerged as a response to the difficulties of access to credit faced by rural and urban sectors. In the mid-20th century, driven by social movements and economic reforms, cooperativism was consolidated as a tool for socioeconomic development. Peruvian cooperatives owe their existence to the struggles led by peasants during the two decades towards the middle of the 20th century (Borda Mamani & Basso, 2020). This historical development has made CoopACs an essential component of financial inclusion in Peru.

To ensure financial stability and the fulfilment of their functions, CoopACs in Peru are subject to the supervision of the Superintendency, which classifies these cooperatives into three Modular Levels (ML) based on the volume of their assets and the complexity of their operations, where the ML indicates the amount of total assets, in descending order:

(a). Modular Level 3 (ML 3): This level groups the largest cooperatives, with assets greater than 65,000 taxable units (UIT), equivalent to approximately USD 90 million. Given their size and scope, these cooperatives have a significant impact on the local financial system, justifying compliance with rigorous capital and risk management standards. These requirements help mitigate solvency risks and protect the interests of members in large-scale cooperatives.

(b). Modular Level 2 (ML 2): This includes cooperatives with assets between 600 and 65,000 UIT, that is, between USD 900 thousand and USD 90 million, with the further subdivision in ML 2A and 2B (600 to 32,500 UIT and 32,500 to 65,000 UIT, respectively). These medium-sized cooperatives face intermediate regulations that seek to guarantee their financial stability without imposing the same requirements as large cooperatives in ML 3. This level facilitates the operation of cooperatives with the capacity to have a significant impact on their communities, while encouraging their controlled expansion.

(c). Modular Level 1 (ML 1): This level includes the smallest cooperatives, with assets up to 600 UIT (USD 90,000). Regulation at this level is more flexible, designed to promote the growth of cooperatives that operate in rural areas or areas with less access to financial services. This flexibility allows smaller COOPACs to develop in remote regions, where they often constitute the only financing option for farmers, small entrepreneurs and families.

This modular regulatory structure allows the SBS to adjust requirements to the specific characteristics of each type of cooperative, seeking a balance between financial inclusion and system stability. By dividing cooperatives into levels, the SBS can more efficiently supervise the risks associated with each group. This ensures that each cooperative maintains adequate governance and risk management practices, regardless of its size.

In terms of socioeconomic impact, COOPACs not only offer access to credit, but also to savings products, insurance and financial education, thus strengthening the economic resilience of their members. This comprehensive access to financial services fosters a culture of savings and financial planning among the less favoured sectors, and contributes to reducing poverty and economic vulnerability. For his part, the Vice Minister of MSMEs and Industry, César Quispe Luján, underlined the key role of cooperatives in supporting the Sustainable Development Goals, especially in areas such as poverty reduction, reducing inequalities and environmental protection (Ministerio de la Producción, 2024).

According to recent data from the Superintendency of Banking, Insurance and AFP, there are approximately 492 savings and credit cooperatives in Peru. This growth is a testament to their relevance in the Peruvian financial system and their ability to serve sectors that traditional banking often does not cover (SBS, 2024).

Methodology

The literature suggests several tools for measuring financial distress and assessing the probability of default of financial institutions. Among them, the following are widely used in

practice: Springate model, Altman Z scores, Logit analysis, and the Zmijewski Score. All four tools have a bold academic justification as well as broad professional adoption.

3.1. Springate Model

The model is implemented with the formula (Bellovary et al., 2007; Day, 2009):

$$S = 1.03 (\text{Working capital/total assets}) + 3.07 (\text{EBIT/total assets}) + 0.66 (\text{EBT/ current liabilities}) + 0.4 (\text{Sales/total assets}) \quad (1)$$

If the result is less than 0.862, the company under analysis is considered failed.

The Springate analysis was first proposed by Gordon Springate in 1978 and since then used extensively. Among the many authors that used it in academic works in recent years, there are Al-Abbasi (2024), Mahmudi and Khaerunnisa (2023), Marsenne et al. (2024), Muzani and Indah (2021), Ramana et al. (2023), Supitriyani et al. (2022), and Yendrawati and Adiwafi (2021).

3.2. Altman Z-Scores

The formula to compute Altman Z score depends on the business sector to which the firm belongs (Altman, 1968; Altman et al. 1977; Altman et al., 2014; Bellovary et al., 2007). For the banking sector, part of the larger service industry, the formula is:

$$\text{Z-score} = 6.56 * (\text{Working capital / Total assets}) + 3.26 * (\text{Retained earnings / Total assets}) + 6.72 * (\text{Earnings before income taxes / Total assets}) + 1.05 * (\text{Sales / Total assets}) \quad (2)$$

Financially healthy companies display a Z-score greater than 2.6, while companies with a Z-score below 1.11 are in financial trouble and may even go bankrupt. The zone in the middle shows uncertainty.

For privately-held firms, the Z-score changes as:

$$\text{Z-score} = 0.717 * (\text{Working capital / Total assets}) + 0.847 * (\text{Retained earnings / Total assets}) + 3.107 * (\text{Earnings before income taxes / Total assets}) + 0.420 * (\text{Book value of equity/Book value of debt}) + 0.998 * (\text{Sales / Total assets}) \quad (3)$$

The safe zone is above 2.9 and the distress zone below 1.23.

Among the academic papers using the Z scores can find: Boubaker et al. (2020), Chien et al. (2021), Dirman (2020), Elviani et al. (2020), Gangi et al. (2020), Sari (2022), and Younas et al. (2021).

3.3. Logit Analysis

The output of the Logit analysis is a percentage that represents the probability of bankrupt of the firm. The algorithm consists of four steps (Bellovary et al., 2007, Day, 2009).

A) Computation of seven financial ratios: (i) Average inventories (over the financial year)/sales; (ii) Average receivables/average inventories; (iii) (Cash + marketable securities)/total assets; (iv) Quick assets – current liabilities; (v) Income from continuing operations/(total assets – current liabilities); (vi) Long-term debt/(total assets - current liabilities); (vii) Sales/(net working capital + fixed assets)

B) Each one of the seven financial ratios is multiplied by a specific coefficient (some positive and some negative)

C) The products of each multiplication are summed up together and a constant value is added (0.23883). The result is assigned to a variable, y

D) The bankruptcy percentage is the result of the formula:

$$L = \frac{1}{1+e^y} \quad (4)$$

This method has been used in Laitinen and Laitinen (2000), Indrajati et al. (2020), Rahman et al. (2020), and Ohlson (1980), among others.

3.4. Fulmer H-Factor

The Fulmer H-factor is considered a robust method for assessing business failures in as much it was able to correctly predict bankruptcy for 98% of the sample within a year and 81% for longer horizons (Fulmer et al., 1984).

First, the algorithm computes a set of nine financial ratios: (i) Retained earnings / total assets; (ii) Sales / total assets; (iii) EBIT / equity; (iv) Cash flow / total debt; (v) Total debt / total assets; (vi) Current liabilities / total assets; (vii) Natural logarithm of tangible total assets; (viii) Working capital / total debt; (ix) Log EBIT / Interest.

Then, it multiplies the financial ratios by a coefficient and sums the resulting values up, together with a constant (-6.075).

If the result is negative, the company under analysis is considered on the verge of bankrupt. Papers adopting Fulmer's model include Altan and Şimşek (2023), Ismail et al. (2023), Rostamy (2024), Stoyancheva, and Angelova (2024), Usmansyah and Pudjiastuty (2023), and Utama and Hamidah (2024).

3.5. Zmijewski Score

The Zmijewski Score is a simple yet powerful tool for assessing financial distress. It is calculated with the formula:

$$X = -4.336 - 4.513 * (\text{Net income} / \text{Total assets}) + 5.679 * (\text{Total liabilities} / \text{Total assets}) + 0.004 * (\text{Current assets} / \text{Current liabilities}) \quad (5)$$

It was originally developed by Mark E. Zmijewski in his Ph.D. thesis at the State University of New York at Buffalo in 1983 (Zmijewski, 1983) and in Zmijewski (1984). The higher the score and the higher the bankrupt probability. It has been widely adopted in many papers and research reports. Among them we can mention Marsenne et al. (2024), Sari et al. (2022), Supitriyani et al. (2022), Usmansyah and Pudjiastuty (2023), Utama and Hamidah (2024), and Wardhiah et al. (2023).

Results

4.1. Cooperatives Terminated by the SBS

SBS provides data about 31 cooperatives excluded from its supervision, only 11 of which are terminated because of financial distress. Despite the problem of analysing a small number of cooperatives, which is a limitation of this research, the indicators confirm the rightness of the SBS decision. Table 1 shows the number of indicators suggesting bankrupt over the number of meaningful ones. The indicators quite clearly suggest that the terminated cooperatives were in

the bankrupt zone. This is a strong argument in favour of the reliability of the indicators used in this study.

Unfortunately, things are seldom so simple. Indeed, even many of the cooperatives that keep operating under the SBS supervision show worrying values for some or all indicators, as displayed in the following section.

Table 1: Indicators suggesting bankrupt for dissolved cooperatives.

COOPERATIVE	Modular Level	Financial distress indicators	Valid indicators (out of 6)
Adecoop	1	5	5
Corazón de Pueblo	1	5	5
Credinnova	1	5	5
Apoyo Financiero Aqp	1	4	5
Cajasol	1	5	5
Credysolución	1	6	6
Credi Chancay	1	5	6
Latino Perú	2A	5	6
Arcangel	2A	5	6
La Cumbre	2A	5	6
Coopevisión Cusco	2A	6	6

4.2. Financial Evaluation per ML

The financial distress analysis of the Peruvian Saving and Credit Cooperatives is shown in table 2. Focusing on the CoopACs currently operating under SBS supervision, the five models display inconclusive results, although with different degrees according to the modular level.

Table 2: Financial distress assessment according to six financial indicators

ML1

	Z-score P	Z-score S	Springate	Logit	Zmijewski
Good	33	44	22	54	56
Bad	27	16	47	15	16

ML2A

Good	39	61	18	58	64
Bad	47	24	74	37	31

ML2B

Good	1	6	0	6	5
Bad	10	6	12	6	7

ML3

Good	0	3	0	7	5
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Bad	8	5	9	2	4
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The logit analysis, Zmijewski indicator, and (albeit at a lesser extent) the Z-score (service) analysis display similar results for the majority of the CoopAC; the Springate model yields worrying signals for the majority of entities under observation in all ML whereas the Z-score (private companies) indicator do not seem consistent with the other models. However, the rather large number of worrying results seems confirmed by the many Peruvian CoopACs excluded from supervision, mostly inactivity or default, over the last five years.

Another datum worth observing is the comparison between the assessment of different indicators on each entity, as shown in table 3. Row 1, 2, and 3 show the number of cooperatives displaying a majority of good, neutral, and bad indicators, respectively. Since the results are mixed, it is worthwhile to show the number of cooperatives with the totality (5 out of 5), or near-totality (4 out of 5) consistent indicators.

Table 3: Assessment per institution

ROW	EVALUATION	NM1	NM2 A	NM2 B	NM3
1	More good assessments than bad assessments	54	57	3	4
2	More bad assessments than good assessments	19	38	9	5
3	# of institutions receiving 4 or 5 out of 5 good assessments	15	13	0	0
4	# of institutions receiving 4 or 5 out of 5 bad assessments	9	19	6	3

Data in table 3 at a certain extent confirm the concerns raised by table 2. Along with 54, 57, 3, and 4 institutions being assessed as safe (row 1) by most indicators in ML1, ML2A, ML2B, and ML3, respectively, 5, 0, 0, and 0, respectively, got mostly a ‘pass’ (equal number of good and bad results, row 2), 19, 38, 9, and 5, respectively, received a ‘default’ forecast by most indicators in this evaluation. This is another, albeit qualitative, worrying indicator: the SBS fines supervised entities that fail to timely submit its financial statements and other financial information. Its webpage shows a few hundred fines imposed over cooperatives, mostly for delay or lack of communicating the required financial information. Failure to timely communicate financial data to the supervisory authority is certainly not a reassuring sign. Overall, the SBS data are only partially complete.

The conclusion that can be drawn from analysing the financial distress indicators of cooperatives is the existence of a degree of uncertainty about the solidity of 71 institutions (higher number of bad than good indicators), and a definitely bad situation (at least 4 bad indicators) for 37 such cooperatives, which nevertheless so far keep operating under the SBS supervision.

Discussion

5.1. Dubious Results of the Indicators

As seen in the previous section, the indicators yield different, and sometimes contrasting, outcomes. The reason for such a marked difference in the assessment may be due to several factors, and not necessarily to a failure of the indicators (although some doubts seem reasonable). Some CoopACs may still be affected by the long wave of the financial troubles caused by the COVID-19 pandemic, officially (albeit not completely) terminated only in late 2022. For example, Yousaf & Bris (2021), reports 2020 as the year witnessing the highest number of bankruptcies in the Czech Republic, with generalized failure of accurate predictions; Sari et al. (2022) find a similar outcome in their study based in Indonesia. This may be because some indicators take into considerations accounting parameters that were most affected by the anomalous situation generated by the pandemics, whereas others were less affected, so disrupting indicators' accuracy. Another possibility is that different indicators assess financial distress by observing very different parameters. Although one should expect a near-default status being detected by all financial distress indicators, it must also be accepted that the global financial circumstances have deeply changed in recent years, let us say since the beginning of the pandemics. Therefore, some indicators may no longer be appropriate to correctly assess the reality. This is an argument common to several studies praising Artificial Intelligence-based techniques for assessing the degree of financial distress. Further explanations may be that the Peruvian CoopACs, although not necessarily in dire straits, may experience weaknesses picked up and magnified by some indicators. This issue is acknowledged in the literature. Aly et al. (2022:335) states that "a single methodology cannot be the general superior tool for every bankruptcy situation. Rather, each methodology will exhibit either strong or weak performance base on the situation and the used datasets". Several other authors find some models, but not others, appropriate for the situation they studied (Cassim & Swanepoel, 2021; Kitowski et al., 2022, Kristóf & Miklós, 2020; Pilch, 2021, among others). Cho and Shin (2023:1) recommend "interpretability for users to understand the result" whereas Rafiqi et al. (2025) recognizes limited accuracy in most traditional distress indicators.

5.2. Open-door policy

At the end of 2018, the Peruvian financial supervisory Authority, SBS, took over responsibility of Saving and Credit Cooperatives from FENACREP. Since FENACREP had no sanctioning power over its associates but SBS does, it allowed the Cooperatives under its supervision a grace period to permit them the time to set up internal systems to comply with the strict requirements about timely release of financial information. Being supervised by the SBS was considered a plus by many cooperatives and therefore the rush toward the SBS supervision was crowded. The Authority accepted all the postulants but, since December 2021, it started to apply its customary system of checks and controls. Unfortunately, many cooperatives resulted unfit and the SBS rigorously disqualified all those that did not completely comply with its rules. This resulted in more than 200 dismissals since September 2020 (437; 9 in ML1, 163 in ML2, and 265 in ML1) to June 2025 (down to 236; 7 in ML3, 132 in ML2, and 97 in ML1). When a CoopAC fails, its investors suffer losses – and that was what happened in many cases.

A more prudent policy could have been to allow SBS supervision only to CoopACs that could display sound financial statements. Yet, an ML1 cooperative was intervened by SBS back in 2021 as it discovered a malicious manipulation of the financial statements. The choice made by the SBS was controversial, as it yielded prestige to cooperatives that did not deserve it, only to quit it after checking its results, an activity that took a few years. The small institutions, those in ML1, suffered most, because of inadequate size and low activity.

5.3. Reasons for Intervention

As observed above, more than 200 CoopACs were disqualified by the SBS from September 2020 to June 2025. The SBS lacks data about some cooperatives but it is known that, among them, there were those disqualified because of inactivity and other because of failing to comply with the legal requirement about effective capital. This study focuses on the latter reason because the former generally does not presents a problem for the associates: if there is little or no activity, even deposits are low or absent. In such cases, disqualification does not cause significant financial losses. Much more troublesome is the case of bankruptcy. Disqualification does not necessarily mean bankruptcy since a disqualified cooperative might continue its business without the SBS supervision and, at least, be able to wind up its operations in an orderly manner. However, this is seldom the case and the reason is closely related to the criterion for disqualifying an active institution. If the only cause for dismissal is reduction of effective capital by more than 50%, it means that, at the time of disqualification, the cooperative is already in deep trouble and its chances to recover are minimal. Nevertheless, SBS still supervises at least 42 cooperatives displaying all, or nearly all, indicators suggesting bankruptcy.

This is a serious issue for the entire Peruvian micro-financial system, a sector that offers financial services to millions of people. The system seems unable to provide an early warning in case of a troublesome institution. The responsibility cannot be charged on the shoulders of SBS, as the Supervisory Authority implements the legal requirements established by the Congress. However, as the literature points out, frequent revisions of the regulatory framework are called for in all countries, and especially in the emerging economies that, for structural reasons, are more vulnerable to the ups and downs of the financial institutions.

5.4. Legal Framework Related to the Saving and Credit Cooperatives in Peru

The regulatory framework governing CoopACs in Peru is composed of two levels. First, we have Legislative Decree No. 85 (General Law on Cooperatives), which is the general regulation governing all cooperatives established in the Peruvian territory, including CoopAC. The other is the special regulation corresponding to the Twenty-Fourth Final and Complementary Provision of Law No. 26702 (General Law of the Financial System and the Insurance System and Organic Law of the Superintendency of Banking and Insurance). The latter (as a special regulation) applies with priority over the former (as a general regulation).

At the second level, we focus on the regulations issued by the SBS in its capacity as the administrative body supervising the entire banking system. The SBS can issue resolutions, directives, and other regulations within its jurisdiction. It is at this level that we observe greater issuance and modification of the regulatory framework applicable to the CoopAC. In this

regard, we should highlight SBS Resolution No. 480-2019 and its amendments, which correspond to the General Regulations for Savings and Credit Cooperatives Not Authorized to Raise Funds from the Public (hereinafter the Regulations). This Resolution develops and details the provisions of the Twenty-Fourth Final and Complementary Provision of Law No. 26702. Since January 1st, 2019, the SBS assumed direct supervision of the CoopAC, as well as much stricter oversight. Previously, this supervision was much laxer and more indirect through FENACREP, which had no sanctioning power. Thus, since that year, the SBS has been applying a series of legal and financial instruments applicable to other financial institutions to the supervision of CoopAC, such as effective assets, global limits, stricter reserves, and reserve requirements, risk analysis, savings protection insurance. This resulted in a loss of liquidity, which led to financial stress for the cooperatives, resulting in the closure of a significant number of them.

Starting in 2025, the SBS has begun to generate a series of regulations aimed at adapting these regulatory criteria (which in the banking sector are rigid and seek to ensure the maximum liquidity of banks' assets and equity) to the reality of CoopAC as entities whose purpose is the well-being of their members through mutual aid¹. This shift in focus allows us to conclude that this entity has achieved something that CoopAC already knew: 1) being savings and credit institutions deeply and directly linked to their members' homes and businesses makes them very sensitive to the environment in which they operate²; and 2) the need for regulatory parameters to respond to this changing and challenging reality, and that they cannot be the same as those applied to other financial institutions.

This is how we can observe SBS Resolution No. 00458-2025, which modifies the gradual schedule for adaptation to the global limit established in article 31 of the Regulations, as well as the schedule applicable to the cooperative reserve and the liquidity coverage ratio established in the same Regulations, which allow for adequate times that reduce the financial and liquidity stress generated for CoopAC. Likewise, in August 2025, the SBS issued SBS Resolution No. 02926-2025, amending Article 27 of the Regulations. This resolution incorporates the possibility that CoopAC may consider contributions of real estate assets as part of their share capital (previously, only cash contributions and capitalization of remaining statutory deductions were permitted; that is, contributions with a very high liquidity level), provided that these contributions are free of liens and encumbrances and do not exceed the 80% limit of effective equity established in the Regulations. Likewise, the aforementioned resolution modifies the cooperative reserve, stating that it must be based on a percentage of share capital, without considering the revaluation surplus³ (previously, it had to be calculated based on this concept,

¹ Article 3 of Supreme Decree No. 074-90-TR – TUO of the General Law on Cooperatives. We can see the third and fourth recitals of SBS Resolution No. 00458-2025, where the SBS itself clearly expresses this conclusion.

² Articles 36, 37 and 38 of SBS Resolution No. 480-2019 and its amendments, which correspond to the General Regulations of Savings and Credit Cooperatives not authorized to collect resources from the public.

³ 15% for COOPACs at level 1, 25% for those at level 2, and 35% for those at level 3, according to article 28 of the General Regulations for Savings and Credit Cooperatives not authorized to collect public resources.

which made it much more complex). Finally, we should mention that the General Law on Cooperatives was amended in 2024. This amendment seeks to streamline their establishment and align the regulation of CoopAC with the rules and regulations of the SBS, adapt them to new technologies, and promote cooperativism and their management. To date, several bills have been submitted to Congress, but they are still under evaluation. Among them, Bill No. 07451/2023-CR proposes exempting CoopAC in liquidation from the provisions of Article 51 of the Regulations for Special Regimes and the Liquidation of Savings and Credit Cooperatives Not Authorized to Collect Public Funds (SBS Resolution No. 5076-2018). This means that debt offsets will not be subject to the order of priority established in that article.

5.5. Need of an Early Warning System

Given the large number of CoopAC that defaulted over the last five years, the need of a timely information about the risk financial institutions may incur is called for. A financial alarm system has advantages and disadvantages. It can protect non-professional investors by informing them about the risk they face. A financial authority should make the general public aware of risks, so gaining their confidence. If potential investors trust the system, the money flows more safely into the system itself, funding profitable opportunities, being aware of the risk, and avoiding panic bursts should return fail to fill expectations. This is the ‘normal’ way the financial community work. On the other hand, an early warning system also has its cons. A downgrade may cause jitters among the investors, who may rush to withdraw their deposits, scared of possible losses, potentially leading to worsening a situation that, if faced in a quieter mood, could have been solved happily. Panic is a major threat to the orderly functioning of a financial system. The history of financial crises, from the XVII century’s Tulip bubble (and perhaps earlier) to the 2008 subprime crash is plenty of similar examples.

The problem is well-known but, with a few exceptions, it is taken under control most of the times and downgrades do not normally cause crashes. Early warning systems have been in existence for decades and have contributed to market stability. Evaluation agencies are a good example. Corporate and government bonds are subject to periodical re-evaluations by rating agencies around the world and, when downgraded, they do not normally cause financial crashes. The financial press reports the news, even bad ones, and financial community receives them with a reasonable mood. Investment decisions are re-evaluated, money is moved around, but a major crisis materialize every few, or not so few, years. If early warning systems work as expected (as they usually do), disastrous consequences could be avoided or reduced.

5.5. Recommendations

Although the SBS dealt with the problems experienced by the CoopAC system reasonably well, the number of institutions excluded by its supervision is now so large that some strong action is strongly recommended. Implementing a timely alarm system looks the most viable way ahead as well as a way out of a situation that risks to undermine the trust the general public has in the Peruvian financial system. However, the rather complex, triple-A down to single-C, rating system implemented by the agencies might be confusing if the target is the general public rather than the professional investor community. A simpler traffic-light-like scale of evaluations may be more suitable, sacrificing the subtleties of the standard rating assessment to the understanding of the non-professional investors.

- Green light: Safe financial situation, with good trends for the main ratios and financial distress models
- Yellow light: Closer supervision is called for. Some ratios may be worsening and financial distress models start displaying negative trends. Bold risk management actions are necessary
- Red light: This is a difficult financial situation, albeit not yet a critical one. The Supervisory Authority should warn the board and the general public of a possible bankruptcy if strong actions are not implemented soon. Failure of such measures would lead to direct interventions by the Authority to exclude the institution from the its supervision.

As a last point, although it may sound a trivial and repetitive one, financial education is the definitive measure to reduce the probability of investing in financial distressed institutions and to mitigate the negative outcome, when it turns impossible to avoid. An informed investor community is better equipped to react rationally to the ups and downs of the financial system.

Conclusion

This study has provided a clear diagnosis of the financial situation of the CoopACs supervised by the SBS, applying six recognized models for predicting financial distress. The results show that a significant number of CoopACs, especially those belonging to ML1 and ML2B, show multiple signs of severe insolvency risk, even when they continue to operate within the supervised system. The repeated negative evaluations in several models validate the need to strengthen supervision and early warning mechanisms.

The open-door policy implemented by the SBS in 2019, although well-intentioned, allowed the entry of cooperatives without a rigorous evaluation of their financial situation, which led to a subsequent massive exclusion. While this action responded to legal and regulatory criteria, it exposed many members to significant financial losses due to unanticipated bankruptcies. Furthermore, the lack of consistency between indicators reflects that no single model is sufficient to reliably anticipate financial distress, reinforcing the need for supervision based on multiple, complementary and up-to-date tools. The central conclusion of this research is clear: the CoopAC system presents structural weaknesses that require immediate attention. It is essential to develop and implement reliable and accessible early warning systems that not only alert of imminent risks but also enable preventive decision-making by both regulators and internal stakeholders. Furthermore, strengthening transparency, accountability, and financial education for members will be crucial to ensuring the sustainability and resilience of this vital sector for financial inclusion in Peru.

This study presents some limitations that should be considered when interpreting its results. First, the number of cooperatives dissolved for strictly asset-related reasons and with data available from the SBS is relatively low. While the financial indicators applied consistently confirm the dissolution decision in these cases, the low number limits the possibility of fully generalizing the findings.

Furthermore, there is a clear restriction on the availability of public information provided by the SBS. Many indicators could not be calculated for all CoopACs due to the absence of key

data in the published financial statements. This lack of information not only reduces the effective sample for certain analyses but can also generate biases in the assessment of the financial situation of the system as a whole.

Furthermore, more than 100 cooperatives were identified as having been sanctioned for not submitting their financial information within the deadlines established by the SBS. This fact not only limits the sector's transparency but also represents a significant obstacle to the timely assessment of financial risks. The repeated failure to provide information could be an additional sign of institutional weakness, but it also prevents predictive models like those used in this study from being more widely applied.

Despite these limitations, the results obtained offer a valuable contribution to the understanding of financial risk in Peruvian cooperatives, particularly by demonstrating that the models applied are consistent with the regulatory decisions taken in the documented cases. Therefore, this study serves as a basis for future research that delves into the development of early warning systems for the cooperative sector.

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