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Message from Carlos Cezar Menezes

Chairman of the Supervisory Board

Brazil's capital market has grown significantly. B3 data show that the 1.6 million individual investor accounts at the Exchange at the end of 2019 grew to 4.2 million two years later.

This evolution is not restricted to equities. When we also take the fixed income market into account, the total number of investors at B3 ended 2021 at 13.1 million, up 23% on the previous 12 months.

This background of growth and democratization means, more than ever, that the capital market requires robust and scalable surveillance mechanisms that grant security and peace of mind both for more experienced investors and for newcomers.

This challenge directly affects BSM, which is responsible for self-regulation of the market that B3 operates.

Our Procedural Rules review was a standout development in terms of our governance and our procedural improvements. The new version contains several enhancements aimed at making our processes swifter, at providing greater transparency to the entire procedural sequence and at a



stronger attachment to the rule of lenity by eliminating the reporting board member's casting vote. There has also been a change to the Appeals Body, which is now comprised of members of the Supervisory Board who were not part of the judging panel and is now responsible for judging appeals lodged against decisions made by the Supervisory Board's panel.

Another highlight was approval of new Bylaws for the Board. As of August 2021, the new document establishes virtual rulings and meetings, defines the structure of the body's legal counsel and improves corporate governance issues, such as the declaration of board members' disqualification.

It was also a very productive year in terms of the consolidation of theses utilized in judgments by the Supervisory Board. In doing so, we have created an individual jurisprudence that grants greater clarity for the self-regulator

regarding each issue, discusses robust and consistent discussions and makes processes more agile.

These advances engendered an efficiency gain that allowed us to accompany the market's growth and to perform with greater agility. The data prove this. As well as judging six administrative proceedings and assessing seven Settlement Agreement proposals, we have attended to more than 900 requests made within the scope of the Investor Compensation Mechanism.

We belong to a group that truly values innovation, alongside closeness to and centrality of the client. For this reason, we constantly revisit and enhance our governance so that BSM can contribute to the challenge of anticipating and meeting the demands of a market in permanent evolution.

Carlos Cezar Menezes

Chairman of the Supervisory Board of BSM

Message from André Eduardo Demarco

Self-Regulatory Officer

In 2020, after more than 25 years working in the capital market, I was invited to be Self-Regulatory Officer at BSM Market Supervision. I completed a six-month transition period up until July 2021 and since then have led BSM and the Self-Regulatory Department teams, which are responsible for providing surveillance, supervision, inspection, auditing and enforcement services for market administration and market infrastructure bodies that have a contractual relationship with BSM.

I am proud to have taken on this responsibility and commitment at a key moment of financial market growth and dynamism, in which there has been a marked increase in the number of investors; a broadening of the range of products and services provided; significant regulatory changes favoring market transformation and adaptation for the coming disruptive periods; a

broadening of the intermediation industry; and development of investors' knowledge and education.

This is a strategically important moment within a permanent agenda of finessing B3 (exchange and OTC market operator) and the entire investments ecosystem. Consequently, BSM has a mission to be present at discussions and to listen to the market, collaborating actively on developing regulation and seeking efficiency in processes and controls, with an eye on investor protection and maintaining market integrity.

For the market to continue developing in this direction we need to assure all participants that the trading environments and other market infrastructure (registration entities, clearinghouses, central securities depositories) are trustworthy and secure and provide equal treatment to

participants and investors, being rulesbased while striving to maintain the credibility of our market. This is exactly our role at BSM.

In 2021, we restructured the selfregulator across the board to prepare it to absorb growing demand and to provide services for other institutions that entrust BSM with their markets' self-regulation or with monitoring and inspecting their infrastructure. To reach these targets, we remodelled our organizational structure: we merged the business audit and IT audit areas. reorganized the legal and market surveillance areas, and created the market relations and compensation processes areas. We also structured ourselves to have an IT team dedicated to meeting our demands and systemic developments.

Another significant course of action was the redefinition and restructuring



of the membership and activities of the BSM Market Advisory Committee, which has been reinvigorated by its new members and has been responsible for wide and impactful discussions aimed at enhancing market surveillance and monitoring activities.

With these changes, we seek improved deployment of individual potentials, as well as synergy between teams, in a way that increases our efficiency and capacity to deliver to our market, investors and regulator.

BSM is part of the ongoing evolution of the capital market. We will work tirelessly in our mission of guiding and persuading market participants to adopt efficient processes and controls that allow everyone to perform their duty of compliance with the established rules. We will never stop

listening to and understanding the demands and requirements for market support, always openly positioning ourselves for dialog and for correcting any problems that may arise on this journey.

Finally, we will continue to be an educational hub for high-quality and high-performing market professionals, through our training sessions and workshops.

I would like to invite you all to join us on our journey as part of this new BSM that is ready for new challenges. In the following pages, you will find a summary of the main activities performed by BSM in 2021.

Happy reading.

André Eduardo DemarcoBSM Self-Regulatory Officer



- self-regulation, surveillance, supervision and inspection both for the markets that B3 operates and for other operating entities and market infrastructures that select BSM to provide these services
- Inspection and auditing of participants that have access to the markets that B3 operates and of other operating entities and market infrastructures that select BSM to provide these services
- Performance of actions necessary for maintaining the integrity of the market, with guidance and training activities
- Performance of enforcement actions and measures to correct irregularities or the conduct of those under supervision
- Management of the Investor Compensation Mechanism (MRP).

To meet our obligations and targets, our actions are based on three pillars:

FIGURE 1 Pillars of Activity



We guide the market, sharing knowledge and helping the market to adopt the best practices for its processes and controls.



We monitor all orders and transactions executed in B3's markets, we audit participants and take action to curtail irregular practices.

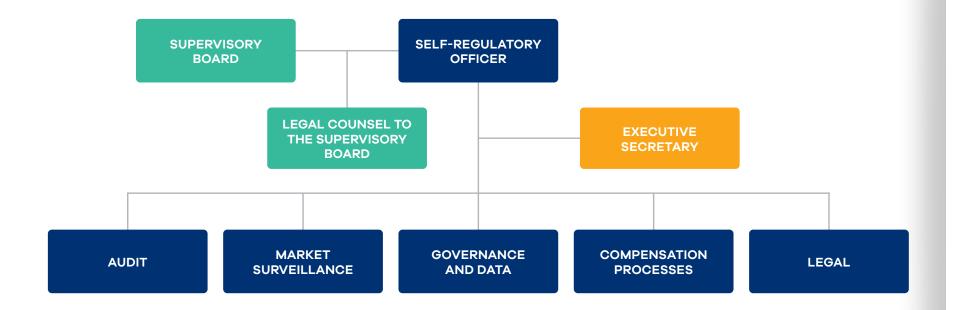


While we maintain market integrity in a transparent and fair manner, we also have a service channel for investors and we manage the Investor Compensation Mechanism (MRP), which compensates investors who are harmed by an action or omission on the part of participants on B3's exchange markets.



To reach our goals, we are organized as in Figure 2.

FIGURE 2 **BSM Organogram**





Market guidance activities are an important pillar of our operation. Experience shows that these actions contribute very positively towards maintaining market integrity and protecting investors. To this end, we hold workshops, webinars, training sessions and other educative interactions with the market and its participants.

In 2021, we held four webinars, and eleven in-company training courses. Through actions such as these we have been able to draw close to financial institutions, intermediaries, professionals and investors, clarifying doubts and refining the market.

TABLE 1

In-Company Events and Training

Event	Number of events	Number of people involved
Workshops / webinars	4	1,105
In-company training courses	11	523

Risk-Based Approach (RBA) in the scope of the Anti-Money Laundering and Counter Terrorism Financing (AML/CTF) programs

In January we held a webinar with the Securities and Exchange Commission of Brazil (CVM) about the Risk-Based Approach (RBA) within the scope of CVM Resolution 50, in which 360 professionals and 96 institutions took part.

CVM Instruction 617 (current CVM Resolution 50) established the risk-based approach (RBA) as the main governance and management instrument of AML/CTF programs. At the event, we clarified the basic requirements of the RBA and CVM's expectations about the rule coming into effect. We also discussed:

- i. continuous surveillance and the criteria for risk reclassification
- ii. analysis of irregularities

iii. degree of consistency between the AML/CFT Policy, the conclusions reached from analyses and the diligence adopted

The video of the event and the presentations held by BSM and by CVM are available on our website¹.



¹ https://www.bsmsupervisao.com.br/Noticias/webinar-sobre-abordagem-baseada-em-risco-no-ambito-da-instrucao-CVM-617

Changes to the Basic Script of the Operational Qualification Program (PQO)

In March, more than 200 professionals from 56 institutions took part in a webinar that BSM held in partnership with B3 and with the support of the National Association of Securities, Foreign Exchange & Commodity Brokerage Houses (ANCORD), about the changes proposed to the Standard Rules of B3's Operational Qualification Program (PQO).

PQO was launched more than 15 years ago and has market recognition for helping to enhance institutions' processes, controls and governance.

The public hearing, the video of the event and the presentations held are available on our website².



² https://www.bsmsupervisao.com.br/Noticias/webinar-selo-PQO-e-audiencia-publica-roteiro-basico-PQO

Classification of the regular audits and new exemption criterion

We held a webinar in June about the classification of results in BSM's regular audits and the new criterion for exemption from these audits. In all, 171 professionals from 60 institutions participated in the event.

We also presented the audit work plan for 2020 and 2021 (which were merged into one because of the Covid-19 pandemic) and the main changes to the criterion for exemption from regular auditing as of 2022.

The video of the event and the presentations held are available on our website³.



³ https://www.bsmsupervisao.com.br/Noticias/webinar-classificacao-auditorias

Supervision of B3 participants' compliance with CVM Resolution 35 and CVM/SMI Circular Letters 3/2020 and 6/2020

In August, we published a Guidance Note on the minimum requirements with which BSM must comply in monitoring the participants in B3's markets, in regard to compliance with CVM Resolution 35, CVM/SMI Circular Letters 3/2020 and 6/2020 B3's External Communication 004/2020-PRE.

The Guidance Note dealt with:

- i. The clients' contracting and use of electronic trading platforms
- ii. Publishing the maximum latency of trading platforms and the working times of the alternative channels in the case of failures at the electronic trading platforms
- iii. Intermediaries' execution of the stress test
- iv. Agreements signed with external providers of relevant services

This document was produced as a collaboration between CVM, the BSM Supervisory Board and the BSM Market Advisory Committee, to clarify doubts about what CVM and BSM consider to be the appropriate ways of complying with the regulations.

In September, within this context, we held a webinar to encompass intermediaries' infrastructure capacity testing

in a stress scenario. At this event there were 362 professionals from 89 institutions, who had the opportunity to clarify doubts about the premisses for capacity testing compliance.



We received more than 100 questions during this event. They were answered through practical examples that showed how the requirements could be met and what the necessary minimum requirements are.

We also published a document with answers to the questions that BSM most frequently received about the subject.

BSM Guidance Note 002/2021 and the video of the webinar are available on our website⁴.

⁴ https://www.bsmsupervisao.com.br/Noticias/2021-08-06-orientacao-ao-mercado-oficios-circulares-32020-cym.smi-e-62020-cym.smi

Guidance for investors

Our website provides material to guide investors. This includes content that CVM developed in partnership with B3, aired during the World Investor Week held October 5 to 7.

We also reorganized content about the Investor Compensation Mechanism (MRP) on our website, seeking to inform investors clearly about the nature and purpose of the MRP, thus facilitating the compensation request process.







In May, we published a guide containing seven tips on how investors can make completed requests to the MRP that meet the necessary requirements for BSM to initiate the process.

The document contains explanations and shows through examples how and what to display, and not, while the mechanism is being triggered. Through this initiative we intend to make analyses swifter and more efficient and, above all, to make the loss compensation process more transparent.



Churning

Seeking new ways to provide the end investor with quality information, we debuted by recording and broadcasting a podcast about churning, an irregular practice that occurs when the intermediary, the broker or self-employed investment agent takes control of the investor's account and trades excessively in its name.

This podcast aired on the Casa do Compliance channel and is available at the main podcast platforms of our website⁵.





Restructuring content on the BSM website

In September, we made a series of improvements to our website, reviewing and reorganizing content, seeking to make navigation of our website easier. Among the improvements were the simplification of menus, the restructuring of content about the MRP and the reformulation of the BSM regulations page.

⁵ https://www.bsmsupervisao.com.br/Noticias/pratica-de-churning



In October we created the market relations area at BSM, seeking a more effective and permanent relationship with the market, with B3 and with others who contract BSM's services.

The market relations area has created an agenda containing proposals to assist the market's self-regulation interactions. The highlights in this respect are guidance about onboarding, monitoring of the planned auditing agenda and frequent contact with participants when investigating complaints received by our Complaints Channel.

Gathered data and BSM's interactions with the market are inputs that bring us even closer to our clients and those we supervise.

BSM Market Advisory Committee

The Market Advisory Committee is an important communications channel between BSM and the market participants. It is comprised of representatives of 24 institutions, as well as the Vice-Chairman of the Supervisory Board and guests of B3.6

In 2021, there were five meetings of the Supervisory Board, at which we discussed and worked on:

- Drafting and submitting a document to CVM to map out market improvement opportunities
- Creating themed working groups for studies, analyses and discussions
- CVM SDM Public Hearing 05/2021 about regulations for Self-Employed Investment Agents (AAI)
- Potential inconsistencies between CVM and Central Bank of Brazil rules and guidance for compliance with CVM Resolution 50

⁶ The composition of BSM's Market Advisory Committee is available in Portuguese on our website: www.bsmsupervisao.com.br | Quem somos | Câmara Consultiva de Mercado

- Talks about best practices involving monitoring and registration of the transactions of Nonresident Investors (NRI)
- Diagnosis resulting from BSM's audit of participants' policies in relation to CVM Resolution 50
- Application of CVM Instruction ICVM 168, pertaining to special procedures for the exchange market, in particular the rule that intermediaries must inform B3 of the sale of more than 0.5% of controlling stakes, even if pulverized, so that the transaction can be submitted to a special auction procedure
- Alignment with CVM for execution of the first capacity test of 2021 pertaining to Resolution 35. This includes third-party platforms and the submission of minimum indicators, aligned with the Working Group and with CVM, and of B3 data for execution of these tests
- Controls expected in transactions executed with assets that are part of a private placement as set out in CVM Instruction 476
- Control of investors who are prohibited from trading because of penalties applied by BSM or CVM (CVM/SMI Circular Letter 2/2021)

- The recommended measures and principles regarding compulsory liquidation, contained in CVM/SMI Circular Letter 4/2021
- The best practices regarding latency in order entry to trading platforms, as set forth in CVM/SMI Circular Letter 6/2020, including the publication of market guidance and answers to the questions that BSM is most asked about the subject
- Sharing of best practice experiences and controls to prevent and curtail atypical transactions among market participants
- Surveillance of self-trades in auction
- CVM inspection of securities lending
- Requirements involving the trading platforms of third parties that are contracted by B3, such as stress tests and daily morning connectivity tests
- Enhancement of regular auditing tests for 2022, involving requests to transfer securities (STVM), in accordance with the guidelines contained in CVM/SMI Circular Letter 8/2019
- Influencers' social networks activity and monitoring thereof.

Working groups

Working groups (WG) were established over the year with the participation of BSM's technical areas, of the Supervisory Board, of representatives of institutions involved in the BSM Market Advisory Committee, and of guests representing other market institutions. We give details below of the activities of some of these working groups.

Atypical Transactions WG

Based on the identification of atypical transactions that investors execute through separate trading participants, BSM created a working group with 28 market institutions which sought to share experiences to prevent and combat these atypical practices.

The group identified opportunities for improvements in the Know Your Customer (KYC) and transactions surveillance processes, with an emphasis on leverage levels, trading behavior history and client guidance for the onboarding process when granting passwords and registration data.

Information and Social Media Surveillance WG

The number of individual investors has grown exponentially over the past three years. This has meant new behavioral trends. Recent research shows, for example, that most of these new investors search for information about the market and investment products via social networks.

In this new scenario, digital influencers provide individuals with financial content using simple and informal language. With this approach, they are also able to attract the attention of large financial market players, who form contractual relationships with some of these professionals.

These digital influencers' activities

therefore deserve attention, as the information that their channels provide can affect investors' individual decisions and impact asset prices and price formation. Furthermore, influencers' activities may even breach the activity limits regulated by the CVM, such as those established for Securities Analysts and Consultants.

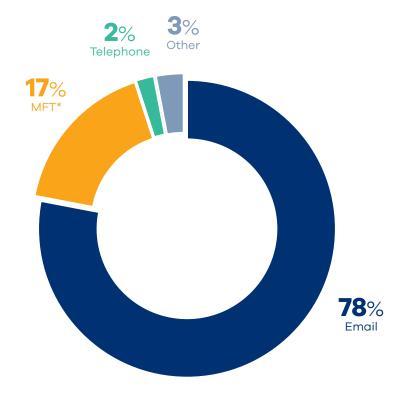
In light of this new activity, a working group of BSM professionals was formed representing different market institutions and CVM, to contribute to the discussions around this activity and analyze ways of enhancing controls and surveillance, foreseeing regulatory developments that help maintain market integrity.



BSM provides a complaints channel⁷ so that professional investors, intermediaries and other individuals and institutions can submit information that helps investigations into signs of irregularities in the capital market. This channel is a precious source of information for BSM's inspection activities aimed at maintaining market integrity.

In 2021, we received 146 complaints. Graphs 1 to 3 below provide further details.

GRAPH 1 How complaints were made

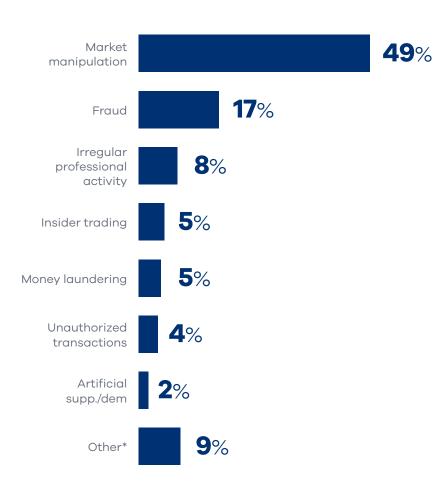


^{*} Platform used for exchanging information and files between BSM and those that it supervises.

^{**} In-person or social networks

⁷ Email: denuncia@bsmsupervisao.com.br

GRAPH 2 **Subject of Complaints**



^{*} Transferer of custody, suitability, churning, control failures and Retail Liquidity Provider (RLP).

GRAPH 3 Complainants and their Targets



^{*} B3, market professionals, anonymous.

^{**} Complaint involving, for example, price manipulation of an asset, but without the identification of the possible manipulator.

^{***} Traders, Self-Employed Investment Agents or other professionals.



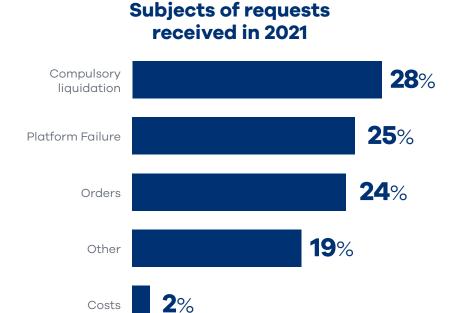
Out-of-Court-

Liquidation

We are responsible for administrating the Investor Compensation Mechanism, whose purpose is to assure that investors are compensated for losses resulting from the action or omission of exchange market participants in the intermediation of transactions on the exchange or during custody services.

In 2021, we received 803 requests for compensation from investors. Graph 4 sets out the main subjects behind the Investor Compensation Mechanism demands in 2021.

GRAPH 4



To meet this growing demand for compensation, we changed BSM's organizational structure by creating a compensation processes area, made up of a team of specialized and dedicated experts, seeking:

- Team empowerment and training
- Standardization of documents
- Reorganization of activities
- Proximity with the involved parties, participants and investors.

We also invested in the simplification of processes, improvements to procedures, services and data intelligence, and the consolidation of theses underlying decisions.

With these measures, we have increased the efficiency of the preliminary stages of the process, reducing the average time of analysis by around 60%.

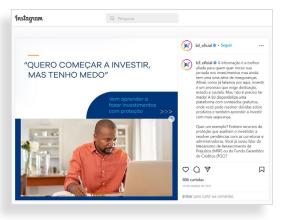
There is now greater proximity with the involved parties, participants and investors (targets of complaints and the complainants, respectively) when seeking solutions through participant-level service and ombudsman teams trained for greater presence and effectiveness with the investor. We believe this will result in a perception of and solution to conflicts in a way that is more beneficial for the entire market, before triggering the MRP.

In 2021, we concluded the analysis of 912 requests and distributed 159 compensations to investors, totaling around BRL 2.7 million.

^{*} Other: irregular account management, churning, suitability, use of collateral, custody, Self-Employed Investment Agent activity or activity of the trader.

MRP publication

In 2021, we worked intensely on the dissemination of knowledge about the compensation mechanism, with actions on social networks and in the media.

















We are responsible for the direct inspection and supervision of participants in the markets operated by B3 and by other market infrastructure operators that contract us to this end. We do this through audits to assess the compliance of participants' processes and controls with the prevailing rules.

Regular Audits

These are held periodically with the participants to assess their physical and technological infrastructure and the adequacy of their processes and controls, whereby we evaluate existence, sufficiency and effectiveness.

TABLE 2 **Processes assessed in the Regular Audits**

Investment club administration	tion Settlement of transactions	
Self-employed investment agents	Surveillance and operating of IT infrastructure	
Client registration	AML/CTF and surveillance of transactions	
Margin account	Order receipt, registration and execution	
Suitability	Change management	
Internal controls	Information security	
Custody of assets	Business continuity	
Risk management	Infrastructure support	

Adoption of the remote model and classification methodology

In January, we began the first round of regular auditing with the adoption of the remote model. A working group discussed and aligned the model, with representatives from 15 institutions that comprise BSM's Market Advisory Committee. The model was then presented for the entire market's consideration.

Following alignment with the CVM, BSM's Supervisory Board and BSM's Market Advisory Committee, we

decided to merge the 2020 and 2021 audits for purposes of classifying the regular audits, as eight participants had already been audited between January and March 2020, before this activity was paralyzed due to the Covid pandemic and the isolation and social distancing measures that were adopted as a result.

In 2021, there were 40 regular audits, with the results designated in Graph 5.

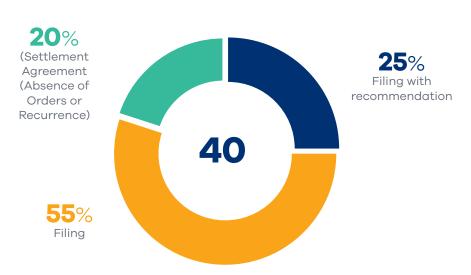
Change to the methodology for classification of regular audit results

In May, we published External Communication 001/2021-BSM about improving the classification methodology of regular audits. According to the new criterion, these audits will occur with the following frequency:

- Participants with high and constant maturity: every three years
- Participants with high maturity: every two years
- Participants undergoing evolution: annually

The new methodology for audit exemption was implemented for participants who were audited in 2020 and 2021. Of the 48 participants, 68% were exempted for two or three years and 32% were not exempted from auditing but received exemption from processes with greater maturity in the controls.

GRAPH 5 Result of the Regular Audit Reports



Pre-Operational Audits

To become participants in a determined access category in the markets operated by B3, institutions must meet a set of operating, technological and financial requirements. BSM verifies this in a pre-operational audit. In 2021, we held 13 pre-operational audits.

Specific or Themed Audits

We carried out specific work resulting from demands made by CVM or B3 or resulting from complaints received, to verify possible breaches of the rules for the markets monitored by BSM.

Among the examples are audits to verify specific issues (Themed

Audits), which inspected orders for private placement securities (issued in accordance with CVM Instruction 476) and assessed participants' adaptation to CVM Resolution 50, regarding Anti-Money Laundering and Counter Terrorism Financing (AML/CTF).

TABLE 3

Summary of the Specific or Themed Audits held in 2021

Subjects	Number of audits
Assessment of the Internal Controls Report and Internal Risk Assessment	60
AML/CTF (adaptation to the stipulations of CVM Resolution 50)	60
CVM/SMI Circular Letters 3/2020 and 6/2020	42
Qualification of custodians and of deposited hard-copy assets	27
Specific audits to investigate complaints	20
Retail Liquidity Provider (RLP)	17
CVM Resolution 35 and Circular Letters (trading platform instability, securities lending custody)	8
Private placements (compliance with CVM Instruction 476)	8
Gold Smelter	1
Total Number of Specific or Themed Audits	243

Compliance of the participants' AML/CTF policies with CVM Resolution 50

In the first half of 2021, we analyzed 60 institutions to assess the compliance of their AML/CTF policies with CVM Resolution 50.

Retail Liquidity Provider (RLP) Specific Audit

Over the second half we held specific audits to check the RLP order process for participants who activated the RLP account between the second quarter of 2020 and the first quarter of 2021.

We finalized the work of the 17 participants assessed in this category and the observations were reported in the audit report over the second half of 2021. Participants whose controls were determined to be inefficient formalized plans of action in response to the audit reports and will be monitored in a follow-up process.

CVM/SMI Circular Letters 3/2020 and 6/2020

As mentioned in the market guidance section, in August we published a Guidance Note in regard to CVM/SMI Circular Letters 3/2020 and 6/2020, which dealt with matters such as publication of the maximum latency of the trading platforms and the service time of the alternative channels.

In December, we finalized the specific audit for compliance with these Circular Letters. All 42 reports were published and the sufficiency evaluation and the implementation of the institution's individual plans of action are undergoing assessment and follow-up in 2022.

Qualification of the custodians of hard-copy assets

We held 27 audits of participants that are custodians of hard-copy assets, in which we checked the physical custody environment of these assets and audited 100% of the physical contracts deposited in the B3 environment.

Indirect Audits

In the indirect audits we checked financial and equity requirement compliance of participants in the markets that B3 operates, and monitored persons linked to intermediaries.

The main activities performed by the auditing in 2021 are listed in Table 4.

TABLE 4 **Summary Table of Issued Audit Reports**

Audit Type	Number
Regular Audits	40
Pre-Operational Audits	13
Specific Audits	243
MRP Audits	407
Total	703



Market surveillance looks for signs of irregular transactions, such as price manipulation, insider trading, fraudulent trades and money laundering.

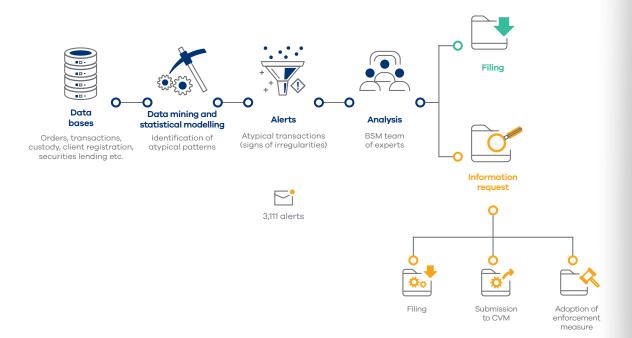
Analysis of irregularities

We monitor 100% of the orders and transactions executed in the markets monitored by BSM. In 2021, our surveillance systems generated approximately 3,000 red flags during orders or transactions.

All the alerts are analyzed by the market surveillance team and if these red flags suggest irregularities, a case is brought to investigate the facts.

FIGURE 3

Flow Chart of Market Surveillance Activities



In 2021, 80 cases were initiated investigate the facts. The main signs of irregularities are set out in Table 5, with an emphasis on unfair practices and possible market manipulation.

Of the cases brought, 18 resulted from complaints, which confirms the importance of this channel as a source of information for BSM's work.

TABLE 5 **Subjects of Cases Brought in 2021**

Possible irregularity	Number of cases
Unfair practices	32
Price manipulation or artificial supply, demand or price conditions	26
Signs of money laundering	15
Other	7
Total	80

Cases concluded

In 2021, we concluded 153 cases which proceeded as described in Table 6.

TABLE 6 Cases concluded in 2021

Dismissed	108
Put before CVM	40
Submitted for enforcement at BSM	5
Total	153

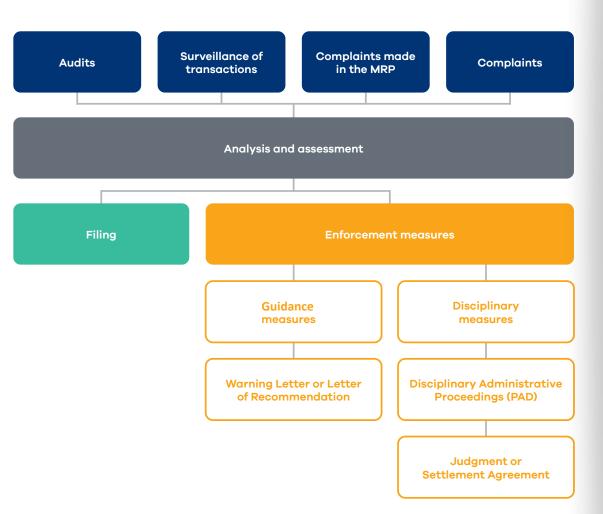


Enforcement aims to improve participants' standards of conduct, avoid the repetition of infractions and encourage those being monitored to adopt adequate internal controls and processes.

An effective supervision system ensures that the identified failures are appropriately handled with guidance measure (letters of recommendation or warning letters) or, when necessary, by the adoption of punitive measures, so that those being monitored are encouraged to improve their controls and conduct so that there are no recurrences.

BSM's enforcement activity rules are available in its Procedural Rules and its Corporate Bylaws, which are provided on our website⁸.

FIGURE 4 **Enforcement activity diagram**



⁸ https://www.bsmsupervisao.com.br/legislacao-e-regulamentacao/leis-normas-e-regras

Letter of Recommendation

The Letter of Recommendation is an enforcement instrument through which the Self-Regulatory Officer recommends improvements to conduct, rules, procedures and/ or internal controls. Through this instrument we may also determine that a plan of action be drawn up to fine-tune the points singled out in the letter of recommendation.

In 2021, we issued ten Letter of Recommendation resulting from procedure and control failures identified within the scope of regular audits. We also issued two Letters of Recommendation for trading irregularities identified in the scope of surveillance of transactions.

Warning Letter

The warning letter is an enforcement instrument by which the Self-Regulatory Officer determines that an irregular practice must not recur.

In 2021, we sent 62 Warning Letters, with most of them related to unqualified investors trading private placement equities, as described in CVM Instruction 476. In these letters, BSM alerted participants about the matter, particularly regarding intermediaries' responsibility when there is a lack of processes and controls to effectively identify and block investors who are restricted from trading equities in a restricted trading period.

This was a very positive process as it allowed BSM to help the market to adopt control measures for immediate troubleshooting, so that:

- i. assets with trading restrictions would not be authorized to investors who have restrictions, in terms of primary and secondary offering controls
- ii. validation could be established for restriction processing
- **iii.** client qualification could be validated in a structured manner
- iv. registration update periodicity could be established for clients who do not have restrictions
- v. investor order controls and product restriction recommendations could be established, with an emphasis on suitability rules.

The close relationship between BSM and the market enabled speedy implementation of controls, guaranteeing ever more market integrity and ever more compliance with CVM guidelines.

Disciplinary Administrative Proceedings (PAD)

BSM's sanctions activity is part of a broader context of enforcement, which includes educational and guidance initiatives. In this context, Disciplinary Administrative Proceedings should only be brought if the preventive and guidance measures are insufficient to curtail the irregular practice.

To judge breaches of the rules within BSM's remit, the BSM Supervisory Board considers several factors, principally:

- seriousness of the infractions
- whether there is bad faith or quilt
- whether there is loss to the investors or the market
- recurrence of the infractions
- history of the institution or professional
- existence of a PAD or another ongoing enforcement measure

- risk that the infraction generates for third parties or the market
- quality of the institution's internal controls and governance
- diligence (quality of the actions proposed, reaction time, damages paid to harmed investors and improved classification in the regular audit).

Therefore, in step with regulation and guidance activities, the central objective of a PAD is to bring the supervised parties' conduct into line with the standards that CVM and the administration entity deem appropriate. Punishment is not an end but an instrument to persuade the supervised parties to follow the rules that have been established for them, within a logic of broadly considered rewards and punishments.

A judgment or conviction may result in:

- warning
- fine
- suspension (up to 90 days)
- temporary disqualification (up to ten years)
- other penalties provided for in the regulatory and operating rules for the markets that BSM supervises.

Over the year, we initiated five PADs. These administrative proceedings observe constitutional procedural principles such as the right to a fair hearing and a full defense and are conducted in accordance with BSM's Procedural Rules, which are approved by the Securities and Exchange Commission of Brazil and available our website⁹.

⁹ https://www.bsmsupervisao.com.br/legislacao-e-regulamentacao/leis-normas-e-regras

There may be a Settlement Agreement within the scope of the PAD or during its discovery phase. This entails ceasing the irregular practice, adopting measures to avoid repetition and, if such is the case, paying damages to third parties. BSM may demand a Plan of Action with deadlines and with measures to avoid repetition of the infractions such as improvements to the institution's internal processes and controls.

BSM's Supervisory Board analyses
Settlement Agreement proposals
and may accept them, reject them, or
make them conditional, depending
on opportunity and convenience
and if it decides that the obligation
is sufficient and timely enough to
prevent repetition. If a Settlement
Agreement is established, it does not
mean that there has been confession
to the facts at hand nor that there has
been recognition of the illicit nature of
the analyzed conduct.

FIGURE 5

Disciplinary Administrative Proceedings completed in 2021



5Processes

Completed



12 Accused



9 Settlement Agreements



Acquittals



O Warnings



3 Fines



Suspensions and Disqualifications

In addition to the cases described above, there were another seven Settlement Agreements prior to the adoption of enforcement measures.

TABLE 7 **Enforcement measures adopted in 2021**

Warning Letters	62
Letters of Recommendation	12
Disciplinary Administrative Proceedings brought	5
Disciplinary Administrative Proceedings completed	5
Settlement Agreements entered into before the adoption of enforcement measures	7



Development of new alerts

In 2021, we developed and implemented four new market surveillance alerts.

Ramping: identifies atypical intraday price fluctuations that are at odds with macroeconomic market factors. The aim is to identify situations where institutions and clients participate in transactions with market price fluctuations that financially benefit third parties, in other words front running.

FIGURE 6 Ramping alert schematic diagram

Ramping identification

- algorithm for simulating windows and applying time series models
- time window scenarios in minutes
- selection of the model with the best ramping adjustment per instrument

Ramping statistics based on indicators

- frequency of transactions
- price variation
- ramping bias (buying or selling)
- investor's activity bias on inbound transactions

Ramping score

- % of client's inbound transactions
- % of client's inbound transactions with fluctuation
- price variation of transactions executed by the client vs ramping price variations

Beneficiaries' score

- profit
- % of position reversal
- % of positions before ramping
- speed of investors' transactions
- % of position reversal quantity

Alert

- combination of metrics selected to comprise the final score
- cases of high scores are selected for analysis.

Score = $(p_1 (i) Profit + p_2 (i) PriceOpen + p_4 (i) PriceOpen + p_5 (i) WeightTimeBefore + p_6 (i) WeightTimeAfter + p_7 (i) TimeRev)$

for i = {cash market, derivatives on cash market, futures and options derivatives} and p_k (i) are the weights designated for each metric in these markets.

Price driver: identifies atypical price fluctuations in a determined period that have no correlation to macroeconomic market factors. This is to identify situations where institutions and clients are involved in transactions with marked price fluctuations to generate financial benefit through increasing the value of custody and forward positions, or to manipulate prices.

FIGURE 7 **Price drive alert schematic diagram**

Period identification (cycles)

- algorithm
 to simulate
 windows and
 the application
 of time series
 models
- time window scenarios
- choice of model with best adjustment for the period per instrument

Typification

- large custodians
- investors linked to the listed companies or participants
- equities prone to price manipulation

Investor behavior indicators

- % purchases with positive price fluctuation vs market fluctuation
- high participation in custody
- high representativity of inbound transactions
- high representativity in purchases

Score

- % of client's transactions with fluctuations in relation to the market
- % of inbound transactions
- % of buy transactions with fluctuations in relation to investor transactions with fluctuations

Alert

- combination of metrics selected to comprise the final score
- high score cases are selected for analysis

Score Price Driver = (market client pos.fluc.+% inbound client trans.+% Buy trans.fluc.)

"Surrogacy": detects transactions that aim for Income Tax exemption on the payment of interest on own capital, via matched transactions in cash, options and securities lending – a strategy known in Brazil as "surrogacy".

FIGURE 8 Schematic diagram for surrogacy transaction alerts identification

Trading period

 Delimitation of the analysis period based on the Interest on own Capital payments calendar published by the issuing companies

BTB and Cash Market

 Identification of the investors that borrow securities of companies paying interest on own capital in the period, and that sell on the cash market

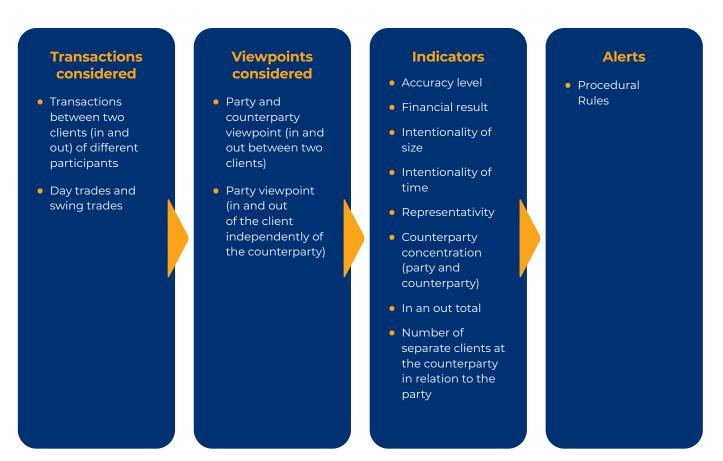
Cash, Options and Forwards

• Identificaction of the investors that together with a sale on the cash market execute a synthetic buy strategy with options or forwards with the same counterparty

Alert

 Selection of the investors based on the materiality of the transaction and matching the volume of the three legs (BTB, Cash Market and Derivatives) **Money pass by different participants**: detects transactions that suggest resources are being transferred via the intermediation of separate participants in trade or swing trade transactions.

FIGURE 9 Schematic diagram of money pass alerts



Improvements to Alerts

We are constantly readjusting our parameters and fine-tuning the methodologies and statistical models for our transaction surveillance alerts. In 2021, we made two particularly important improvements to surveillance alerts:

Money pass: we improved the calculation of intentionality in alerts involving RLP accounts and optimized codes to improve processing time.

Spoofing: we improved the alert metric for the identification of spoofing (type of market manipulation via "fake orders") due to the need to increase synergy between work carried out by BSM and those that it monitors, to increase assertiveness.

Alert filters developed with CVM

Alerts developed in partnership with CVM.

Atypical day trade gains alert: a monthly alert to identify investors with atypical day trade gains, in the listed segment.

Price fluctuation alert: an alert for when there are atypical price fluctuations of assets, whose companies have been questioned in relation to atypical trading behavior. In addition to the date that questions were raised, the assets involved and the company's response, our report includes trading history statistics and an analytical view of the period assessed to aid analysis.

Data service

Data Consultation Robot: A tool developed and implemented so that BSM's areas can have greater autonomy when extracting data in the performance of their duties.

Productivity indicators and dashboards for management of activities: we developed new dashboards to assist with areas' management and created new controls to capture information.



BSM has a
Supervisory
Board comprised
of 11 members,
with a majority
of independent
members. At the
end of 2021, the
Supervisory Board
was comprised
of the following
members:

TABLE 8 Composition of the Supervisory Board at the end of 2021

Aline de Menezes Santos *	
André Eduardo Demarco (Self-Regulatory Officer, no voting rights)	
Carlos Cezar Menezes (Chairman)	
Henrique de Rezende Vergara	
João Vicente Soutello Camarota *	
José Flávio Ferreira Ramos* (Vice-Chairman)	
Marcos José Rodrigues Torres	
Marcus de Freitas Henriques	
Murilo Robotton Filho	
Rodrigo de Almeida Veiga	
Sergio Odilon dos Anjos	
I Summarized biographies of the board members are available on our website ^{10.}	

¹ Summarized biographies of the board members are available on our website

^{*} Non-independent members

¹⁰ https://www.bsmsupervisao.com.br/quem-somos

The main responsibilities of the Supervisory Board are to:

- approve BSM's budget proposal and annual work program
- supervise compliance with the BSM Work plan
- approve activity reports submitted periodically to the regulator
- approve BSM's regulatory, procedural and operational rules
- judge disciplinary administrative proceedings
- judge appeals that intermediaries lodge within the scope of the Investor Compensation Mechanism (MRP).

Over the year the Supervisory Board met 24 times, to discuss and deliberate on matters linked to BSM's activities, to judge disciplinary administrative proceedings, and to analyze Settlement Agreement proposals submitted in the scope of ongoing disciplinary administrative proceedings.

In Table 9, we set out the number of judgments and analyses of settlement agreements.

Judgments and analyses of settlement agreements in 2021

Activity	Number
Judgments of Administrative Proceedings	6
Consideration of Settlement Agreements	7
Judgments and Appeals in the scope of the MRP	127

The Supervisory Board analyzed and debated the following subjects at meetings and forums.

New Version of BSM's Procedural Rules

The Supervisory Board and the Securities and Exchange Commission of Brazil have approved changes to BSM's Procedural Rules, coming into effect on November 1, 2021.

The new version of the Procedural Rules results from discussions with the market and includes changes that allow defendants to consult with the Self-Regulatory Officer and take part in hearings with the Supervisory Board for greater procedural transparency.

It contains improvements that aim for greater procedural agility, such as electronic signature usage and the elimination of legal or technical reports.

Finally, the reporting board member's casting vote has been removed and we now lean more towards the defendant in the case of tied decisions (rule of lenity). It has also been decided that Panel board members cannot judge an appeal by the defendant.

Change to the Bylaws of the Supervisory Board

In August 2021, the Supervisory Board approved a new version of its Bylaws. The document redefines the responsibilities of the Chairman and Vice-Chairman, changes the summons period for meetings and changes the meetings and judgments quorum to 2/3 of members.

In addition to these changes, the new Bylaws tailor the wording about individual Supervisory Board members who propose removal of the Self-Regulatory Officer; adjust the Board's disqualification declaration; and establish the structure of the Supervisory Board's general counsel.

Finally, the document expressly creates virtual meetings and judgments and establishes the electronic signature as a standard to be adopted.

Statement of CVM/SDM Public Hearing 05/21

New rule for Self-Employed Investment Agent's activity

The Supervisory Board members discussed the draft rule with BSM's technical areas, which published a statement containing the following points:

- the deadline by which the new rule comes into effect must consider the state of readiness of the intermediaries and the Self-Employed Investment Agents and the consequent impact on BSM's monitoring routines
- establishment of minimum content with which Self-Employed Investment Agents must comply if they wish to maintain a commercial link with more than one intermediary, on pain of admission in their corporate profiles that they are not Self-Employed Investment Agents
- assessment of business continuity and cyber-security plan inclusion in Self-Employed Investment Agents'

- obligations, to better attend to the investor and to avoid regulatory arbitration between intermediary institutions and the Self-Employed Investment Agents
- clarification regarding the
 eventuality of individual investor
 partners not registered as Self Employed Investment Agents being
 able to hold management positions
 or having controlling power, and
 avoiding discussions about BSM's
 surveillance responsibility over
 individual investors not registered
 directly as market participants
- foreseeing the Self-Employed
 Investment Agent disclosing the
 bylaws and internal procedures
 and controls by which its linked
 intermediary's structure goes along
 with the Self-Employed Investment
 Agent's judgment about the
 adopted rules meaning greater or
 lesser restriction
- foreseeing that the Self-Employed Investment Agent defines and discloses how it will act in relation to the following matters: (i) development of systems architecture to assure the confidentiality of each client's information, with segregated access for each intermediary; (ii) use of information management tools of clients linked to different intermediaries; and (iii) structuring of teams, shared or exclusive, for each intermediary with which it has a link
- considering the best execution principle, the rule must foresee the obligation of non-excusive Self-Employed Investment Agents establishing the criteria to guarantee the best execution of their clients' orders, in situations in which a same order can be executed by more than one intermediary



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