

BME CLEARING FAQs

Corporate structure and governance

- Please describe the CCPs ownership structure.

BME Clearing is 100% subsidiary of Bolsas y Mercados Españoles (BME Group). Please see links to BME Group web site for comprehensive information about the Group:

<https://www.bolsasymercados.es/ing/bme/que.htm>

<https://www.bolsasymercados.es/ing/bme/que3.htm>

<https://www.bolsasymercados.es/asp/doc.asp?id=esp&doc=/ing/bme/organigrama.htm>

- Does the BME CLEARING provide any financial guarantees to subsidiaries or other Financial Market Infrastructures?

No.

- Please describe your governance structure at Board of Directors level, including what governance committees exist at BME CLEARING.

BME CLEARING's Board of Directors Regulations rule all the governance aspects of the Board: Composition, General functions, Principles of Conduct, Governance and functions of the Board officers and Committees, Operation of the Board of Directors (calling, venue, constitution, representation and adoption of resolutions of the Board of Directors), rules governing directors and members of committees and commissions and conflicts of interest.

The General Manager of the company has Board member status, and attends all Board of Directors' meetings, reporting to them periodically on the actions of senior management.

There is a specific Audit Committee and an EMIR Risk Committee.

The organizational structure is fully detailed in our web site, please see:

<http://www.bmeclearing.es/ing/AboutUs/EstructuraOrganizativa.aspx>

- What is the role of the CCP's EMIR Risk Committee and how are its members selected? To what extent does the CCPs risk management framework incorporate feedback from the CCP EMIR Risk Committee?

It is a consultative committee of the Board of Directors, advising it on any arrangements that may impact the risk management of the Company. In accordance with article 28 of EMIR, it includes independent members of the board, representatives of the CCP clearing members and representatives of its clients.

Specifically, the EMIR Risk Committee must advise the Board of Directors on any significant change in BME CLEARING's risk model; the default procedures; the criteria for accepting clearing members; the clearing of new classes of instruments; the outsourcing of functions; the internal policy framework for defining the types of extreme but plausible market conditions for the stress test; the liquidity plan; the material

revisions or adjustments to the models, methodologies and liquidity risk management framework used to quantify, aggregate and manage its risks; the material revisions or adjustments to the policies used to test the CCP's margin and default fund methodologies and framework for calculating liquid financial resources; the systems and valuation models used for valuating when pricing data is not readily available or reliable; the review of the margin model; the review of reverse stress tests; the policy for using derivatives contracts with regard to classifying them as highly liquid financial instruments.

Members of the EMIR Risk Committee are disclosed in our web site: <http://www.bmeclearing.es/ing/AboutUs/EstructuraOrganizativa.aspx>.

And for comprehensive information about the EMIR Risk Committee, please see Article 20 of the following document:

http://www.bmeclearing.es/docs/docsSubidos/ing/BME_CLEARING/CorporateGovernance/BoardofDirectorsandRiskCommitteeRegulations.pdf

- Are recommendations of the Risk Committee binding or can they be overridden by BME CLEARING Board of Directors?

The EMIR Risk Committee fulfills the EMIR requirements in all respects (composition, mandate, governance arrangements, etc.).

With respect to the binding nature of the advice, EMIR requires (art. 28.5) that "a CCP shall promptly inform the competent authority of any decision in which the board decides not to follow the advice of the risk committee". And that is the approach in BME CLEARING EMIR Risk Committee too.

The Rules of the Board of Directors Regulations specifically contain the following provisions:

The EMIR Risk Committee is a consultative committee of the Board of Directors, advising it on any arrangements that may impact the risk management of the Company.

The CNMV shall be notified if the Board of Directors decides not to follow the advice of the EMIR Risk Committee with respect to matters within its remit.

There has not been any case of overridden recommendations.

- Please set out the CCP's regulatory status as a financial markets infrastructure, including the supervisory authority/regulator to which supervision you are submitted.

BME CLEARING fully complies with EMIR (articles 26 – 35) and its supplementing regulations, which establish Governance Arrangements required for CCPs.

Spain's financial authorities, and specifically the Ministry of Economy and Finance and the Spanish Securities Markets Commission (Comisión Nacional del Mercado de Valores; CNMV) regulate and supervise BME CLEARING.

BME Clearing direct Supervisory Authority is the CNMV:

<http://www.cnmv.es/portal/home.aspx?lang=en>

Given BME CLEARING's status, the CNMV shall remain informed of the development of its activities at all times.

- Describe the legal and regulatory structure of your institution and the operating entities/asset classes/services.

BME CLEARING, as central counterparty, is governed by EMIR and by the Spanish Securities Market Act (SMA) and its activities are carried out within the framework envisaged in its Rule Book, General Conditions, and complementary regulations such as Circulars and Instructions. The internal rules and regulations will govern the functioning of the central counterparty as a company and contain the obligations and organizational requirements and procedures necessary to comply with the provisions of the EMIR.

Please see our Rulebook, General Conditions, Circulars and Operational Instructions: <http://www.bmeclearing.es/ing/Resources/Resources.aspx>.

Pursuant to the provisions of the SMA and EMIR, and pursuant to a request by BME CLEARING, the CNMV authorized BME CLEARING, on 29 July 2015, to extend its activities and services, under article 15 of EMIR, to provide services as central counterparty for Equities and Interest Rates OTC Derivatives.

The regulatory framework applicable to BME CLEARING described above provides a grounded, clear and effective legal basis with a high degree of legal certainty that is mandatory and enforceable for CCP Members, Clients and users.

Compliance

- Is the regulatory framework compliant with European Market Infrastructure Regulation "EMIR"?

Yes, BME CLEARING is EMIR compliant. It obtained the authorization as a Qualified CCP (QCCP) on September 16, 2014.

Please, check the ESMA's list of CCPs authorized to offer services and activities in the European Union in accordance with EMIR:

http://www.esma.europa.eu/system/files/ccps_authorized_under_emir.pdf

- Please describe whether your organization is required by local law to obtain a certain legal status or license in order to provide clearing services in the market. If so, does your organization have such status/license?

The CCP is regulated by the CNMV as the competent authority under EMIR. In addition, it is a condition in order to obtain authorization as a Central Counterparty under EMIR (Regulation 17(4)) that any central counterparty which satisfies the authorization requirements in EMIR is notified as a "system" under the Settlement Finality Directive.

The CCP is subject to Law 24/1988, of 28 July 1988, on the Securities Market (the "Spanish Securities Market Act") and Law 41/1999, of 12 November 1999, on Payment and Securities Settlement Systems, which implements the Settlement Finality Directive ("Law 41/1999").

- How frequently do you meet with regulators and what have been the main topics of discussion? Are there any expected rulebook changes as a result of discussions with regulators? If so, please detail.

It depends on the relevance of changes proposed. For instance, when BME CLEARING was in the process of launching two new additional segments (IRS segment in November 2015 and Cash Equities in February 2016) that led us to have several meetings with our regulator (CNMV) within the whole year 2015. Also, due to the EMIR authorization (granted on September 2014) we had more frequent meetings with them. On the other hand, if there is no important changes to face, there are no regular meetings, even though on a monthly basis we usually contact them in order to inform them before the entry into force of any updated Circular of BME CLEARING.

- Please advise if the regulatory authorities have enforced any action in the last three years against your institution.

No.

- Is your institution designated as a Systemically Important Financial Market Utility (SIFMU) by the Financial Stability Oversight Council, or by the local equivalent? If yes, what additional regulatory oversight is your institution subject to?

No.

- Is BME CLEARING covered by CPMI-IOSCO principles for Financial Market Infrastructures? If yes, please provide a link to your CPMI-IOSCO disclosure. If unavailable, please provide an overview of how you adhere to the principles and detail when you plan to publish disclosures.

Yes. On December 2015, BME CLEARING has performed a self-assessment of the CPMI- IOSCO principles for Financial Market Infrastructure of April 2012, with the aim of displaying the compliance of its observance with the CPMI-IOSCO Principles for Financial Market Infrastructure (PFMIs). For that purpose, BME CLEARING has applied the disclosure framework and the assessment methodology recommended by CPMI-IOSCO, using public and non-public information.

Please see:

<http://www.bmeclearing.es/docs/ing/Normativa/CPSS/110803%20-%20Assessment%20of%20MEFF%20against%20the%20CPSS%20-%20IOSCO%20recommendations%20of%20Central%20Counterparties%20300811.pdf>

- Please detail the policies, procedures and systems you have in place relating to Anti Money Laundering, sanctions, privacy and data protection, and other related regulations, which you need to comply with.

BME Group has a Corporate Defence Programme which applies to all the companies of the Group including BME CLEARING.

The Corporate Defence Programme establishes a set of general controls and tools in order to moderate the risk: BME Group Code of Conduct; BME Group Internal Regulations of Conduct; Whistle-blowing system, policy and procedures; BME Group

Prevention of criminal offences Guidelines; Criminal Prevention Handbook; Group's Corporate Governance: Audit Committee, Standards of Conduct Committee...; Process map, risk management file and control plans; Principles of action guidelines for employees; mandatory Training program on this issue.

This programme also encloses special clauses regarding Money Laundering, breach of privacy and data protection, Hacking, fraud, insolvency offence, computer damages, Crimes against intellectual property rights, breach of professional or business secrecy, misleading advertising, Stock Market offences, private corruption, Crimes against the Public Treasury and the Social Security, breach of accountancy obligations, Bribery, Trading in influence and Corruption in international commercial transactions.

- Please detail any additional monitoring policies in place relating to prevention of fraudulent / criminal activity.

As regards Anti-Money laundering and terrorism financing there is a procedure aimed at complying with the Spanish Authorities requirements, approved by BME Group in accordance with the Internal Control System of Financial Information. Some other policies are duly segregation of duties, external review of public agreements by a Notary Public, double check and signature system for bank transfers, Security policies and Committees, confidentiality clauses, System for the approval of purchases, attachment to the Spanish Tax Agency code of conduct... etc.

We are subject to the European and Spanish law and to any request for information made by the SEPBLAC (Spain's Financial Intelligence Unit (FIU) and AML/CFT Supervisory Authority) any time.

- Do you have an internal audit department?

Yes

- Please provide an overview of your institution's internal audit structure.

The Audit Committee is a BME Board committee.

The Internal Audit Service's mission is to support BME's Audit in overseeing the effectiveness of the control mechanisms and risk management processes in place. To this, it shall operate independently and in accordance with professional quality standards and rules, helping the various Group companies to comply with applicable regulations and the most stringent of corporate governance standards, and reducing to an acceptable level the possible impact of any risks on the Company's ability to meet its objectives.

The primary responsibility of the Internal Audit Service is to oversee the proper functioning of the internal control and risk management systems, and keep the Board informed through the Audit Committee, and BME's senior management through the EMIR Risk Committee about the adequacy and effectiveness of the procedures, rules, policies and instructions established by Group companies to ensure the proper functioning of these systems to attain the goals related to:

- Effectiveness and efficiency of resources and operations;
 - Reliability of financial and operational information
- What is the name of the external firm of auditors appointed by your institution?

PwC

- Does your Audit Committee review the scope of the auditing procedures of the external auditors?

Yes

- What do the audits cover? (eg. financials, operational procedures, risk management and controls)

- Internal: operational procedures, risk management and controls.
- External: financials.

- What is the frequency of audits/ regulatory inspections and when are the next ones due?

- Internal: annual. Next one will take place in 2017.
- External: annual. Next one will take place in 2017.

- How do the internal / external auditors, and regulators report their findings within/ to your institution?

They report their findings to BME CLEARING General Manager, to the Audit Committee and to the Board of Directors.

Financial information

- Please provide a copy of your most recent annual report in English of your institution and the operating entities resp. subsidiaries. Who is the auditor and for how long have they been auditing your firm? Has the annual report been approved by an auditor? If not please explain.

2015 Annual Report, audited by PwC, can be found in our web site:
<http://www.bmeclearing.es/ing/AboutUs/InformacionFinanciera.aspx>.

- What is BME CLEARING's credit rating? Please mention the rating agency.

BME CLEARING does not have credit rating.

Product Coverage and Segments

- Please provide an overview of BME CLEARING profile in terms of the different asset classes it clears.

BME CLEARING runs the Central Counterparty (CCP) activities under the following segments:

- Financial Derivatives segment.
- Fixed Income (Repo) segment.
- Electricity Derivatives segment.
- Interest Rate Swaps (IRS) segment.
- Cash Equities segment.

Further details can be found in Article 2 "Services and Duties of BME CLEARING" of our Rulebook and in the General Conditions of each segment, both available in our web site.

- Please provide us with a list of exchanges/markets/trading platforms that you clear per segment.
 - Financial Derivatives: MEFF (Spanish Financial Futures and Options Exchange).
 - Electricity Derivatives: MEFF (MEFFPower).
 - Fixed-Income Segment: Sistema Electrónico de Negociación de Activos Financieros (SENAF)
 - Cash Equities Segment: Spanish Stock Exchange Interconnection System (SIBE).
- Is your institution interoperable with other CCP's and if so with which CCP's and for which products?

No, it is not.

Access and Membership

- Describe the process of evaluation if the Members fulfill the admission criteria. Is a periodical validation if members still meet the eligibility criteria, and if so, how often is this check performed?

The applying entity must deliver all the documentation required to show that it complies with the membership criteria. The CCP Board will approve, or not, the incorporation of the company as a Clearing Member, a Non Clearing Member or a Proprietary Non Clearing Member. Every year a review of the requirements will be carried out to check that the member still complies with the requirements.

- What are your admission criteria for Members and how are they defined/controlled?

Pursuant to article 109 of the Securities Market Act, membership of a CCP shall be limited to the entities referred to in paragraphs a) to d) and f) of article 69.2 of the Securities Market Act, the Bank of Spain and other entities, whether resident or non-resident, that perform analogous activities in the terms and with the limitations set out in secondary legislation and in the entity's own internal regulation.

According to the Securities Market Law, and Article 3 of BME CLEARING's Rule Book, the following entities can be members of the CCP:

- Investment services companies which are authorized to execute client orders or to trade for their proprietary account.
- Spanish credit institutions.
- Investment services companies and credit institutions authorized in other member States of the European Union which are authorized to execute client orders or to trade for their proprietary account.
- Investment service companies and credit institutions authorized in a State which is not a member of the European Union, provided that they comply with the requirements established in the Securities Market Law 24/1988, of 28 July, to operate in Spain and which, in the authorization granted by the authorities of their country of origin, are empowered to execute client orders or to trade for their proprietary account.
- Any other person who, in the opinion of BME CLEARING's management company:
 - Is suitable;
 - Has sufficient ability and competence;
 - Has the appropriate organization measures, where applicable, and
 - Has sufficient resources to carry out the functions required.

All these entities must comply with the requirements established in BME CLEARING's Rule Book. General Conditions, and in Circulars. These requirements shall not be discriminatory, and shall be transparent and objective in order to guarantee open and equal access to BME CLEARING.

The Bank of Spain and other resident or non-resident entities which carry out analogous activities may also become Members, under the terms and conditions stipulated in the Securities Market Law, its supplementing regulations and in the Rule Book.

The latter (resident and non-resident entities) may become CMs of the CCP following approval by the CNMV. All CMs must provide certification of their solvency, according to the Circular Admission of Clearing Members in BME CLEARING (if applicable) and their latest audited financial statements, accompanied by the auditor's report. In addition, CMs must meet a certain minimum Shareholders' Equity established in the General Conditions of each segment.

As Article 3.3 of the Rulebook states a "comprehensive risk analysis" of prospective members is performed.

Basically the process followed by the CCP is to ensure that all points established in Article 5.2 of the Rulebook, regarding the different Member's obligations, are met. Some of these points can also be extended to what is written in the different Circulars and Instructions for each different group of contracts.

Also, article 3.4 of the Rulebook establishes that Members must have and maintain the necessary technical and human resources required to operate in BME CLEARING, which is determined and revised through the corresponding Circulars. These

obligations aim to ensure that Members' resources and operational capacity are sufficient to perform the obligations deriving from BME CLEARING's membership.

- Please provide an overview of the different Member categories.

There are 3 categories of membership:

- Clearing Members ("CMs").
- Non-Clearing Members ("NCMs").
- Proprietary Non-Clearing Members ("PNCMs").

Clearing Members may act as General Clearing Members ("GCMs") and as Individual Clearing Members ("ICM").

All MEFF (Derivatives Exchange) and SIBE (Cash Equities Exchange) Members must hold a membership at BME CLEARING, either non-clearing or clearing. However a membership at the CCP does not compulsory require an Exchange membership.

Only the entities referred to in sections a) to d) and f) of Article 37.2 of the Spanish Securities Market Law can become a Member in any of its categories (provided they also comply with the requirements established in the Rulebook and relevant Circulars), with the exception of the PNCMs which only need to comply with Article 4.3 of BMEC Rulebook.

NCMs and PNCMs are considered Members who cannot clear transactions directly with the CCP.

PNCMs can never hold client accounts. They can only trade for their own account and for the account of Affiliates with a crossed shareholder relationship of, at least, 95%.

- What financial requirements are applicable to each category of membership?

Clearing Members must provide certification of their credit rating (if applicable) and their latest audited financial statements, accompanied by the auditor's report, as part of the approvals procedure.

In addition, they must meet a certain minimum Shareholders' Equity. Such requirements apply to members depending on the segment of the CCP in which they are active. Please see below:

- Financial Derivatives
 - For GCMs: EUR 25,000,000.
 - For ICMs: EUR 3,500,000.
 - For NCMs: EUR 3,500,000
 - For PNCMs: EUR 100,000
- Fixed Income/Repo
 - For GCMs: EUR 125,000,000.
 - For ICMs: EUR 40,000,000.
 - For NCMs: EUR 40,000,000

- Energy Derivatives
 - For GCMs: EUR 25,000,000.
 - For ICMs: EUR 3,500,000.

- IRS
 - For ICMs: EUR 40,000,000.
 - For NCMs: EUR 3,500,000

- Cash Equities
 - For GCMs: EUR 25,000,000 for clearing a maximum of 4 NCMs. They will need to have some additional EUR 5M for an additional group of 4 NCM until a maximum requirement of EUR 45,000,000.
 - For ICMs: EUR 3,500,000.
 - For NCMs: N/A

Members who do not have sufficient Shareholders' Equity to meet the minimum level may alternatively contribute Individual Funds in order to reach such solvency level. In these circumstances the Individual Funds required by the CCP will be 75% of the shortfall (i.e. the difference between the minimum level and the Member's confirmed Shareholders Equity). However, in all cases, they must at least maintain a required level of 20% of Shareholders' Equity's minimum amount required.

Members holding OSAs are also obliged to post Individual Funds, of an amount of a 2% of their average Initial Margin requirement.

Audited financial statements must be sent annually to the CCP.

- [Is there a periodical review process of your clearing members?](#)

There is a daily monitoring of the Credit Ratings of all Members. Also, regarding the Member's Shareholder's Equity there is at least an annual review, regardless of several companies for which the review is done on a quarterly basis instead.

Account Structure, Segregation and Portability

- [What are the models offered by the Clearing House across various clearing services? Are they EMIR compliant? Are the models classified as EMIR 39.2 Omnibus or 39.3 ISA?](#)

BME CLEARING was re-authorized as a Qualified CCP under EMIR on September 16th, 2014. Current client account structure is, obviously, fully EMIR compliant.

It is worth saying that since inception and long before EMIR entry into force, BME CLEARING had available the "individual" segregation for clients, and since 2011 also the "omnibus" segregation. Right now there are 35,000 individual accounts. The individual account model in existence at the time of EMIR authorization was based on the "agency" model whereby the account holder (the client) directly faces the CCP being the member fully liable in case the holder does not perform. With EMIR in force, international banks and brokers have requested to have individual accounts based on

the “Principal-to-Principal” model whereby the holder faces the member and the member faces the CCP, exactly the same as in the existing omnibus accounts. With the same P-t-P model we’ve been also requested to have the NCMs house accounts facing the clearing member and not the CCP, what we will call Sponsored Member Account.

So the individual account based on the P-to-P model as well as the Sponsored account are already in place since October 1st, 2015, as part of a new Rule Book containing these as well as other changes/improvement. Of course all BME CLEARING Accounts continue fully EMIR compliant.

Therefore, as of today, we have the following client accounts available:

INDIVIDUAL SEGREGATED ACCOUNTS (ISA)

Individual Segregated Account holders can be any natural or legal person fully identified in the CCP.

There are two types of ISA, the Agency model, where the holder is the customer, and the Principal to Principal model where the holder is the Member.

In both the position of each client is reflected directly in BME CLEARING’s Central Register. These are net accounts where the position is segregated from the positions of other customer accounts and from the position of the Member’s proprietary account. In the event of default by the Member, the client’s positions can be easily transferred to one or more participants. The collateral posted is fully segregated from the margins of other client accounts and from the margins of the proprietary account of the Member. The client’s collateral may only be used to cover losses associated with default by the same client.

In the event that the client holding an ISA Agency model becomes insolvent, the remainder of the margins are returned to the administrator of the bankruptcy proceedings and the debit balance is absorbed by the Member. In the event that the client holding an ISA Principal to Principal model becomes insolvent, the remainder of the margins are returned to the Member for the benefit of the client

OMNIBUS SEGREGATED ACCOUNTS (OSA)

The Omnibus Segregated Account holder is the Member.

The Omnibus Segregated Account includes positions belonging to a group of clients. These are gross accounts, which may simultaneously contain buy and sell positions on the same contract. However, Initial Margin is calculated for the net position.

The Member holding one or several OSAs must run a Second-Tier Register showing the breakdown of transactions and the position held by each client. The Member must adjust the position on a daily basis so that the omnibus account in the Central Register reflects the corresponding position in the Member’s Second-Tier Register.

BME CLEARING or any other competent authority may request documentary proof of the positions held by each member in its accounts. At least once a year the CCP performs an audit of all transactions, open positions, daily settlements and margins required and posted with the Member.

The collateral posted in Omnibus Segregated Accounts is fully segregated from the margins of other client accounts and from the Member's proprietary account.

In the event of insolvency, the remainder of the margin is returned to the administrator of the Member's bankruptcy proceedings for the benefit of its clients and the debit balance is absorbed by the Member.

Please see attached the Circular "*Account Types Available in BME CLEARING*":
http://www.bmeclearing.es/docs/ing/normativa/circulares/2015/C-GEN-2015_02_Accounts_Types_Available_in_BME_CLEARING.pdf

- Are there any specific client Accounts available only in specific segments of the CCP?

Yes, in the Financial Derivatives and in the Cash Equities segments.

Financial Derivatives Segment.

Group Client Account: it is an ISA, either Agency or Principal to Principal, for Affiliates of a Member. It works as a Proprietary Account in terms of trading and clearing fees. Its holder must be a legal person that belongs to the same business group as the BME Clearing Member. That means that:

- The Holder is the owner of at least 95% of the share capital of the Member.
- The Member is the owner of at least 95% of the share capital of the Holder.
- The capital of the Member and the Holder is the direct or indirect property of the same mother company by at least 95% in each case.

Cash Equities Segment.

- 1) Special Financial Intermediary Account: it must be an ISA Agency Model or ISA Principal to Principal Model, which will be associated to an account in IBERCLEAR with individual settlement.

Only financial intermediaries that follow the optional procedure of settlement by financial Intermediaries, as detailed in IBERCLEAR's procedures, may open this kind of Accounts.

There may be two different kinds of Special Financial Intermediary Accounts, at the Member's choice:

- o Gross Special Financial Intermediary Account (GFIA): no offsetting of purchases and sales (gross calculation of margins and settlement instructions).
 - o Net Special Financial Intermediary Account (NFIA): Account with offset of purchases and sales (net calculation of margins and settlement instructions).
- 2) Third-Party General Account (OSA for the Cash Equities Segment): the particularity of this account is that, depending to how it is defined, it allows that

the Registration of the Position and the corresponding Margin calculation is done either gross or net.

- Gross Third-Party General Intermediary Account (GOSA): account without offset of purchases and sales (gross calculation of margins and settlement instructions).
- Net Third-Party General Intermediary Account (NOSAAn): account with offset of purchases and sales (net calculation of margins and settlement instructions).

- [How does the CCP disclose its segregation and portability arrangements?](#)

All BME CLEARING's documents on segregation and portability are in the private domain and available on BME CLEARING's website under the Regulations section.

Furthermore, a disclosure document on segregation and portability stating the costs and level of protection associated with each level of segregation is available in our web site under the Account Structure section as mandated by article 39.7 of Regulation (EU) No. 648/2012 (EMIR).

- [What are the CCP's portability arrangements?](#)

The CCP has portability arrangements in place to ensure that the positions and collateral of participants' customers may be transferred in the event of default.

- In the event of default by a Non-Clearing Member holding ISAs, Agency and P-to-P model, after reporting the situation to the CNMV, BME CLEARING will transfer these accounts to its General Clearing Member who shall be obliged to accept them. The General Clearing Member and the defaulting Non-Clearing Member will inform the latter's customers of the situation.

The transfer of accounts to the General Clearing Member shall entail the transfer of the collateral corresponding to the clients holding these accounts.

The General Clearing Member receiving the accounts may request the holders of these accounts to contribute the amounts required to adequately cover their risk as an adjustment to the Initial Margins. In the event the amounts requested are not contributed, a Default will be deemed to have occurred and the General Clearing Member will agree the total or partial closing-out of the Accounts with insufficient Initial Margins.

- In the event of default of a Clearing Member holding ISAs, Agency and P-to-P model, BME CLEARING will try to transfer these accounts to other Clearing or Non-Clearing members, after previously informing the CNMV. To perform such transfer, agreement between the Member or Members to which the accounts shall be transferred and the clients whose accounts are to be transferred is required. The collateral corresponding to these accounts will also be transferred.

In the event that all or some of the ISAs cannot be transferred because the Initial Margins corresponding to all or some of them do not suitably cover BME CLEARING's risk, in BME CLEARING's opinion, the latter may request the holders of these Accounts to contribute the amounts required to adequately cover this risk as an adjustment to the Initial Margins. If the amounts hereby

requested are not contributed, a Default will be deemed to have occurred. In that case, as well as when the transfer has not been conducted due to other reasons, BME CLEARING may close, in whole or in part, the net Positions of the corresponding Individual Segregated Accounts.

- In the event of default by a Clearing Member or Non-Clearing Member holding OSAs, the same procedures will be followed, except that the accounts must be transferred to a Clearing Member or Non-Clearing member holding accounts of this type and the defaulting Non-Clearing Member shall be obliged to transfer to the General Clearing Member the corresponding Second-Tier Register Accounts, and the margins posted by the holders.

Article 35 of the Rule Book specifies the procedures to follow to close out positions and transfer customer accounts in the event of default.

- [How does the CCP segregate a member's clients' positions and related collateral from other clients' or from the member own positions and collateral?](#)

Both required and effectively posted collateral and positions are calculated and managed at the level of each account opened at the Clearing House. This ensures full segregation between the positions and collateral of each client's account, either ISA or OSA, with respect to any other ISA or OSA or to the Member's own account.

- [What is the legal basis that supports the protection of the margins and collateral of the CCP's participants from the default of fellow participants and even from the default of the Central Counterparty itself?](#)

All margins posted by member and clients in connection with the CCP activity are protected under the Securities Market Law, specifically in Article 44ter.7, which we transliterate below:

"The collateral provided by the members and clients in accordance with the rules of the central counterparty's Rule Book and in connection with any transactions made in the scope of its activity shall be valid only vis-à-vis the entities to which it was provided and only for the obligations deriving from such transactions with the central counterparty or with its members or from the status of member of the Central Counterparty

The Central Counterparty's Rule Book and Circulars may establish the cases which shall determine the early termination of all contracts and positions of a member, either on its own account or on behalf of its clients, and which, in the terms of the regulation previously mentioned, shall provoke the netting of contracts and positions and the creation of a single legal obligation, covering all included transactions, based in which the parties shall only have the right to demand each other for the net balance of the result of netting such transactions. Among the previously mentioned cases, non-payment of obligations and the opening of insolvency procedures in relation to members, clients or the Central Counterparty, shall be included. Such netting regime shall have the consideration of netting agreement in accordance with the provisions of Royal Decree -Law 5/2005, of March 11th, of Urgent Reforms for the Push of Productivity and the Improvement of Public Contracts, without prejudice of the specific

regime contained in Act 41/1999 of November 12th, on Systems for Payments and Securities Settlements.

If a member, or a member's client, fails to meet any or all of the obligations undertaken vis-à-vis the central counterparty or vis-à-vis the member, the aggrieved party may make use of the collateral provided by the party in default and, to that end, adopt the necessary measures in the terms to be established by the entity's Rule Book.

In the event of insolvency on the part of a member of a central counterparty or any of its clients, the central counterparty shall have the absolute right of separation with regard to financial instruments and cash representing the collateral which the members and clients have provided or accepted, in accordance with the provisions of the central counterparty's Regulation. Without prejudice of the foregoing, any surplus remaining after settlement of the guaranteed transactions shall be incorporated into the estate in insolvency of the client or member.

In the event of insolvency of the clients of members of a central counterparty, those members shall have the absolute right of separation with regard to financial instruments and cash representing the collateral that their clients have provided, in accordance with the provisions of the central counterparty's Rule Book. Without prejudice of the foregoing, any surplus remaining after settlement of the transactions shall be incorporated into the estate in insolvency of the client in question.

Once a member has been declared bankrupt, the Central Counterparty, after notifying the National Securities Market Commission, shall arrange for the transfer of any contracts and positions registered for clients, together with the financial instruments and cash representing the corresponding collateral. For these purposes, both the competent judge and the administrators in the bankruptcy proceedings shall provide the entity to which the book entries and collateral are to be transferred with access to the documentation and the computer records required to make the transfer effective. Where such transfer cannot be effected, the entity may order the settlement of the contracts and positions which the member had opened, including those for the account of clients. In that case, once the procedures that must be performed with respect to the registered positions and collateral provided by clients vis-à-vis the member have concluded, the clients shall have the absolute right of separation with respect to any surplus.

In the event of insolvency of the Central Counterparty and should the liquidation of all contracts and positions of a member proceed, either for its own account or on behalf of its clients, members and clients who had not breached their obligations to the Central Counterparty shall have the absolute right of separation with respect to any surplus of the collateral posted to the Central Counterparty in accordance with its own Rules and Regulations, coming from the liquidation of the guaranteed transactions with the exception of contributions to the default fund.”

- **To what extent is a customer's collateral exposed to “fellow customer risk”?**

No Individual Segregated Account (ISA) identified in the CCP is exposed to risk from any other account and by extension neither is any of its posted collateral.

However, for Omnibus Segregated Accounts (OSA) fellow customer risk does exist for collateral posted by clients with positions and margins within the same omnibus account.

- Which segregation structure does BME CLEARING use (e.g. LSOC, Gross/Net Omnibus, Full Customer Segregation, etc.)?

We operate under the “legally segregated and operationally commingled” or “LSOC”. That means that all margins and collateral required and posted to a client’s account, either ISA or OSA, are fully legally segregated from its member Proprietary Account and from any other client account.

All of BME CLEARING’s money settlements are conducted in European Central Bank money. Daily at 9 am, all cash settled concepts by the CCP are settled via a standard Multilateral Settlement mechanism on the TARGET2 platform, where the credits and debits of each Clearing Member are offset. Everything is settled in one single flow, including the Member’s Proprietary Account, through such daily multilateral settlement in Target 2. A full breakdown is provided on a per account basis.

BME CLEARING does not keep any money at all in commercial banks.

Risk Management

- What is BME CLEARING’s Initial Margin methodology?

BME CLEARING uses its own margin calculation models:

- MEFFCOM2 for Financial Derivatives, Repo and Power segments. It is similar to the “SPAN” model, considered to be an industry standard, and evaluates overall portfolio risk by calculating the worst possible loss that a position may occur in various price and volatility change scenarios (22 theoretical scenarios, which can be increased for large positions). It allows for intragroup offsets (Intra commodity spread) for products within the same group (e.g. futures and options with the same underlying and several expiries) and intergroup offsets (Inter commodity spread) for product groups whose risk is sufficiently correlated.
- And extension of MEFFCOM2 for the Equity segment, adapted to several position balances and several settlement scenarios
- A method based on historical scenarios that combines HVaR and Expected Shortfall models for the Interest Rate OTC Derivatives segment. The maximum expected loss on a portfolio over a specific time horizon resulting from both models is chosen, assuming a certain confidence level.

It is fully documented in the *Procedure for Margin Calculation* Circular for each segment.

- What is the level of coverage of the initial margin model?

For Financial Derivatives, Equities and Fixed Income Securities BME CLEARING’s existing model has been enhanced with the following criteria:

- Ensure a confidence interval always covering at least 99% of losses for each of the CCP's financial instruments. Time horizon for the calculation of historic volatility shall be at least one year, and include periods of stress (high volatility)

Notwithstanding the above, BME CLEARING may also apply an internal criteria:

- 99.9% confidence interval
- The highest volatility of (1) the implied volatility of options in the past 21 sessions, and (2) 21-day historical volatility is used, calculated on the last 63 business days, based on 3 criteria: change in closing price, high low range volatility (the Parkinson number) and high/low, open/close volatility (the Garman-Klass estimator).

Such criteria are intended to ensure that the margin requirement forestalls a short-term spike in volatility.

For the Energy OTC derivatives:

BME CLEARING will keep in place its existing confidence interval of 99.9%, and will compare it to the outcome of applying the 99th percentile, increased by the margin required by Article 28 of the Delegated Regulation (EU) 153/2013. The highest resulting value is selected as the margin requirement. Time horizon for the calculation of historic volatility is 1 year.

For Interest Rate OTC Derivatives:

BME CLEARING applies a minimum confidence interval of 99.5% in a 10-year HVAR scenario method; this corresponds to the 12th worst scenario. In addition, BME CLEARING also applies an additional historical scenarios method, known as Expected Shortfall. This is only effective if it implies that a higher margin is required than above. In this model, the margin is determined as the average of the 6 worst scenarios, equating to a confidence interval exceeding 99.75%.

- [How does the CCP estimate the key parameters and inputs of the margin model \(such as the closeout period and the confidence interval\)?](#)

Confidence interval: established according to EMIR Article 41 requirement.

Close-out period: BME CLEARING considers that it uses a conservative closeout period for positions, which allows for smooth closeout without any major impact on prices, and according to EMIR Article 41.

- Two days for financial derivatives, equities and fixed-income securities (the period for the latter segment can be up to ten days for buying positions in bonds).
- At least 5 days for energy derivatives and 5 days for interest rate OTC derivatives proprietary position (7 days for client positions)

To prevent risk of concentration and liquidity, when the size of a position is greater than the average daily trading volume of an underlying, considering the last 63 business days, this is deemed an additional exposure and therefore, further margins are required.

- [How does the CCP determine an appropriate sample period for historical data used in the margin model?](#)

-

BME CLEARING calculates historic volatility based, at least, on a twelve-month lookback period. BME CLEARING currently uses indeed a lookback period of more than 3 years (since July 2012) as the basis for the financial derivatives margin calculations, being the minimum one year if it includes stressed periods, according to Article 25 of Delegated Regulation (EU) 153/2013. The same historical sample is used for the Equity segment. BME CLEARING additionally uses a time horizon of the last 63 days, as parameter of an additional criterion, used only to increase initial margin requirements. It could lead to highest results than the current 3 year time horizon if there's a sharp increase in volatility in the last days of the history length.

For the Interest Rate OTC Derivatives, the time horizon is at least always the last 10 years, or more than the last 10 years if needed.

For Energy futures and swaps, a minimum twelve-month lookback is used

- [How does the CCP address procyclicality in the margin methodology?](#)

BME CLEARING has a system that establishes stable margin parameters, addressing reasonable and prudent procyclicality.

Margins are modified on a prudential basis only, particularly when brought down, to avoid pro-cyclical effects. If the review results in a proposal to a reduction in the margin, this proposal must pass at least two monthly reviews before it can be applied. By contrast, if the review advises raising the margin parameter because it produced a significant outcome, this margin parameter is increased.

Regarding the procedures for adjusting margin requirements in response to changing market conditions, BME CLEARING will use the following criteria:

- a) Apply a margin buffer at least equal to 25% of the calculated margins which it allows to be temporarily exhausted in periods where calculated margin requirements are rising significantly;
- b) Ensure that its margin requirements are not lower than those that would be calculated using volatility estimated over a 10 year historical lookback period.

BME CLEARING uses criterion (b) for the Interest Rate OTC Derivatives segment. In the other segments, BME CLEARING uses:

- Criterion (a) when the financial instrument has a history of less than 10 years.
- The average of criteria (a) and (b) if 10 years or more of reliable historical data are available.

- [How does the CCP identify and mitigate specific wrong-way risk?](#)

The CCP does not accept securities issued by the holder of the secured obligation as collateral, nor does it accept securities issued by its clearing members, non-clearing members or clients. It limits concentration in the rest of underlyings by capping the number of shares posted as collateral by a client or member for its Proprietary Account to 100% of the Average Daily Trading Volume.

BME CLEARING has also included in its Stress Tests' scenarios the effect of the default of a clearing member that issues cleared securities by including a downward price scenario where the underlying issued by the defaulting clearing member falls by a 50%.

There is also a specific analysis for the Fixed Income segment in relation to the sovereign debt risk premium. BME CLEARING runs a specific wrong-way risk calculation for the repo segment, on a monthly basis.

- [How frequently is the model recalibrated?](#)

The model would be recalibrated whenever back testing results would indicate that the model did not perform as expected, with the result that it does not identify the appropriate amount of initial margin necessary to achieve the intended level of confidence.

- [Please detail the market data sources used by BME for risk management purposes: third-party vendors, members' contributions, brokers, proprietary curves, etc...](#)

BME CLEARING's database uses the following sources: data from the trading platforms with which the Company interacts, MEFF the trading platform for Spanish derivatives market, SIBE the Spanish stock exchange trading platform for IBEX 35 shares and the rest of Equity products, AIAF-SENAF, the trading platforms for Spanish Fixed Income securities, both corporate and public debt and REUTERS for all other information on pricing, like non Spanish Sovereign Debt.

Financial Derivatives segment: the price of the underlyings are directly provided by Sociedad de Bolsas (the mother company of the four Spanish Stock Exchanges). The interest rate curve, theoretical values of expected dividends are provided by Markit, volatility curves inferred from the option market and market trading information are directly provided by MEFF (the trading platform for the Spanish derivatives market).

Repo segment: data directly from SENAF (Sistema Electrónico de Negociación de Activos Financieros), which is BME's electronic trading platform for Spanish Public Debt and repos.

- [How frequently is the data updated?](#)

The CCP has constant access to the relevant pricing sources to measure its positions and collateral posted both in real time and at session end.

- [What is BME CLEARING's Initial Margin methodology for the IRS segment?](#)

BME CLEARING requires that each Clearing Member shall update its Initial Margin on a daily basis. The Initial Margin is calculated at account level.

1. Base IM Calculation
2. Credit Quality Multiplier
3. Adjustment for position size

1. The Base IM is calculated as the highest value calculated with the Historic VaR (H-VaR) method and the Expected Shortfall method. These methods entail calculating the maximum expected loss on a portfolio over a specific time horizon, assuming a certain confidence level.
2. The Credit Quality Multiplier is a multiplication factor to be applied to the IM. It is determined on the basis of the solvency level of the Clearing Member. BME CLEARING sets the Credit Quality Multiplier in the Circular "*Parameters for calculation of Initial Margin*".

3. The adjustment of the IM to the size of the position is made when it is possible the market will encounter difficulties in absorbing the hedging transactions necessary to close the position of a member in default

Therefore, for each account, the final amount of the Initial Margin will be:

Account IMA = $\max(\max(\text{Historical VaR}, \text{Expected Shortfall}), \text{IM Floor}) \times \text{Mcredit quality}$
+ Adjustment for Position Size

For comprehensive information about the methodology please see Circular of the IRS segment *"Procedure for Initial Margin Calculation"*.

- [How is the Default Fund calculated and how are contributions of Clearing Members calculated?](#)

BME CLEARING has established a Default Fund for each segment. The amount of the Default Fund for each segment must cover the Risk, under Stress Test conditions, of the Clearing Member with the highest risk, or the sum of the second and the third Clearing Members with the highest risks.

The Default Fund amount is updated each quarter. It is published on the first business day following each calendar quarter and Members will have 5 business days in which to update their contributions.

The overall Default Fund per segment may be no less than the amount established in the Default Fund Circular of each segment.

Every Clearing Member must make at least a minimum contribution to the Default Fund of the segment or segments in which it is active, but its contribution may be higher. The minimum amounts are established by Circular and are the following:

- Financial Derivatives Segment
 - o ICM: 250,000€
 - o ICM holding OSA/s: 1,000,000€
 - o GCM: 1,000,000€
 - o GCM holding OSA/s: 2,000,000€
- Repo Segment
 - o ICM: 1,000,000€
 - o GCM: 2,000,000€
- Energy Derivatives Segment:
 - o ICM: 250,000€
 - o ICM holding OSA/s: 500,000€
 - o GCM: 500,000€
 - o GCM holding OSA/s: 1,000,000€
- IRS Segment
 - o ICM: 1,000,000
- Cash Equities Segment
 - o ICM: 500,000€
 - o GCM: 1,000,000€

In order to calculate which Clearing Members must contribute to the Default Fund with a higher amount than the minimum amount, the necessary Default Fund amount as specified in Section 1 will be shared between the different Clearing Members on a

proportional basis to each Member's average exposure (stress test risk) in relation to the total for all

Clearing Members in the Clearing House. The reference amount that will be taken into consideration is the average exposure corresponding to the last three months.

As a result of this distribution calculation, those Members who are assigned an amount which is less than their minimum contribution will be removed from the distribution. For the remaining Members, the average exposure percentages will be recalculated, and the additional contribution to the Default Fund will be calculated in respect of the minimum amount they need to contribute by multiplying their average exposure percentage by the difference between the amount that the Default Fund must hold in total and the sum of the minimum contributions of all Clearing Members.

- In conducting stress testing, what scenarios does the CCP consider?

The calculation methodology used in stress testing is defined in the Default Fund Stress Test Circular (available on the BME CLEARING's website). This Circular defines the methodology used to determine the stress test parameters and scenarios.

The calculation of a Clearing Member's Risk under Stress Test conditions is based on a model which incorporates:

- The worst case historical scenarios recorded in the last 30 years or throughout the time that reliable data could have been obtained, and based on the market conditions at every time.
- Hypothetical scenarios based on both historical and non-historical but plausible extreme fluctuations, according to EMIR and its subsequent regulatory developments.

For each Segment the loss of value of each open position is calculated for each stress test scenario, according to the parameters published in the *Stress Test Calculation Parameters* Circular of each Segment. The losses recorded in each scenario (compared to the position's value at close of the previous day) are compared to the Initial Margins of the Accounts.

- What analysis supports the use of these particular scenarios?

The historical scenarios are based on past evidence. On the other hand, in order to find possible future scenarios that are more unfavourable than those recorded historically, BME CLEARING has decided to use the Peaks-Over-Threshold (POT) methodology, based on the extreme value theory.

- In the event that non-defaulting Members' Default Fund contribution had to be used, as provided for under Article 37 of the Rule Book, how would such utilization be carried out?

In all segments, except IRS, the amount utilized will be proportionally split according to each Clearing Member's contribution to the total Default Fund amount of the corresponding segment prior to the default situation.

In the IRS segment the order in which each Clearing Member's contribution is used will be determined by the Clearing Member's performance in the auction of the defaulting member's portfolio.

- Must non-defaulting Clearing Members replenish their contributions to the Default Fund?

Yes. If all losses are covered and the Default Fund is not fully consumed, all non-defaulting Clearing Members must replenish their utilized part within 5 business days after the use.

If the Default Fund is fully consumed and there are still remaining losses, for 90 calendar days starting when the default was declared, the maximum aggregated amount to be replenished by each Clearing Member will be twice their initial contribution.

At the end of the 90-day period, the Clearing Members must replenish their contributions to the Default Fund according to the new calculated level and proportions.

So, 90 days after the default occurred, the maximum loss of a non-defaulting Clearing Member, in relation to another Clearing Member's default, will be 3 times its initial contribution to the Default Fund.

- [If a Clearing Member cancels its membership, when will the Default Fund be refunded?](#)

If a Clearing Member intends to cease its membership it will notify BME CLEARING in a formal letter. The CCP then will proceed to refund its contribution only when open positions have been fully closed out.

If between the notification and the position close-out the contribution is to be used due to another Clearing Member's default, it will be used but it will not entail an obligation to replenish, provided the CM closes its open position within 5 business days of the request of replenishment.

- [What methodology does BME CLEARING use to calculate the risk of each Clearing Member under Stress Test conditions and thus to size the Default Fund amount? How often does it run such calculation?](#)

The calculation is run daily, when trading session is over.

The calculation of a Clearing Member's Risk under Stress Test conditions is based on a model which incorporates:

- The worst case historical scenarios recorded in the last 30 years or throughout the time that reliable data could have been obtained, and based on the market conditions at every time.
- Scenarios based on non-historical but plausible extreme fluctuations, according to Article 30 of Delegated Regulation (EU) 153/2013, which develops Article 42 of Regulation (EU) 648/2012 (EMIR).

The scenario with the highest risk will be selected according to the criteria established in the Stress Test Calculation Parameters Circular, which shall determine the Clearing Member's risk under a stress test situation for one particular segment.

- [How often is Back Testing performed](#)

Back Tests are run daily. Whenever there is a margin deficit compared to the worst loss incurred by any account (within 1 or 2 days in the Financial Derivatives, Cash Equities and Repo segments and 5 days in the Energy and IRS segments. In the latter, the period is extended to 7 days when there are client's accounts) the situation will be

analyzed in order to see if such excess may come from a low price or volatility interval or may be explained by some problem with the margin model. However, the second situation has never occurred yet.

- How many margin calls do you have intraday? Can the frequency be increased in times of high volatility?

None.

Margins are calculated and called once daily at COB. In cases of extraordinary volatility, BME CLEARING can make intraday margin calls according to certain parameters established by Circular. Each segment has its own Circular about this issue.

BME CLEARING defines in its “Margin Calculation Parameters” Circulars a level of price variation called “Extraordinary Margin fluctuation parameter”, with the purpose of allowing the CCP to regain a sufficient level of funds in situations of exceptional volatility. This extraordinary margin fluctuation is usually set up at an 80% of the initial margin interval (or price scanning range). In the IRS segment it is set up at a 50% of the interval.

- What is an Individual Fund?

They are margins that can be called to Clearing Members, on an individual basis, in different specific situations, as established in “Individual Funds” Circular:

<http://www.bmeclearing.es/docs/ing/normativa/circulares/2012/CGEN-2012%2009%20Individual%20Funds%20-%20Types.pdf>

- How are Individual Fund contributions of non-defaulting members treated in the event of a default? Are they outside of the waterfall like IM, or part of the waterfall like a default fund contribution?

They are outside of the waterfall like Initial Margin. The only mutualized contributions of a non-defaulting CM are the Default Fund contributions

- How does the Intraday Risk Limit system work?

Intraday Risk (current exposure plus potential future exposure) for Positions in approximately 4,000 active accounts opened at the CCP is recalculated every five minutes. In each calculation, current collateral posted is considered: cash in TARGET2-Banco de España or assets posted in IBERCLEAR, CLEARSTREAM or EUROCLEAR, at account level or Clearing Member level.

Valuations shall be made using the last trading price available published on REUTERS' website, updated every 15 minutes, and applying the corresponding haircut published in BME CLEARING Circular “Valuation of assets posted as collateral”.

The Intraday Risk Limit is the maximum amount that a Clearing Member may owe the CCP during a trading session.

The CCP shall not request additional intraday collateral:

- Provided that the intraday risk is covered by the Intraday Risk Limit

- While the Margin Call Limit is not reached, which is referred to as the Margin Call level (80% of margin interval).

A Clearing Member's Intraday Risk Limit is determined by its Solvency Limit, equal to between 5% and 10% of its capital, depending on the Member's solvency, subject to a number of caps, published in "*Intraday risk limit*" Circular.

The Clearing Member's Solvency Limit, plus Individual Funds and any margins posted delimits the Intraday Risk Limit.

If a Clearing Member's Intraday Risk exceeds its Intraday Risk Limit during a trading session, BME CLEARING will ask the Member to supply an additional Individual Fund, such that the Intra-day Risk does not exceed 80% of the new Risk Limit.

- [What is the Margin Call Limit?](#)

At the end of each trading session, an Intra-day Risk Limit stress testing is carried out. The stress test simulates the Risk of each Clearing Member in the event that, on the following trading session, prices exceed the Price Fluctuation Parameters as stated in the "*Cases for Posting of Extraordinary Margins*" Circular.

The Risk amount thus calculated is compared with the Clearing Member's Solvency Limit for the Margin Call Limit (MCL), calculated using double the percentages of Shareholders' Equity utilized in the Intra-day Risk Limit, also subject to caps. If the Risk Amount exceeds the Clearing Member's Solvency Limit for the MCL, plus the margins considered for the purpose of establishing the IRL, the Member will be required to post an Individual Fund for the difference.

- [Does the CCP have and Default Management Procedure? If so, please describe it and its objectives in detail.](#)

Yes. BME CLEARING's Default Management Protocol is a general procedure for all segments of the CCP. Therefore, it will apply to all segments positions of a defaulting Member regardless on the segment it may have defaulted.

It is reviewed, at least, annually.

This Protocol can be found in our web site in the following link: http://www.bmeclearing.es/docs/docsSubidos/esp/BME_CLEARING/Incumplimiento/ANNEX_DEFAULT_MANAGEMENT_PROTOCOL.pdf

- [What is the BME CLEARING's total equity \(including capital and reserves\) available to absorb losses?](#)

BME CLEARING has a capital structure comprising capital of €18,030 million and reserves of €24,423 million.

In order to comply with current European regulations for minimum capital requirements for central counterparties (CCPs) (specifically Regulation (EU) 648/2012 and Delegated Regulations (EU) 152/2013 and 153/2013), BME CLEARING has carried out the obligatory analysis of the risks incurred, which have been subsequently classified, controlled and measured to determine that sufficient coverage is in place, according to the provisions of the regulation.

As a result, current CCP capital (“skin-in-the-game” included) is 5 times the minimum required by EMIR.

BME CLEARING has developed a CCP capital requirements monitoring procedure to ensure that sufficient capital is permanently available to cover the risks.

- Does BME CLEARING allocate/dedicate any reserves from its balance sheet, i.e. “Skin in the Game”, to cover a member default? How much?

BME CLEARING shall provide some dedicated own resources of €2 million for the Financial Derivatives segment, € 0,5 million for the Energy Derivatives segment, € 1 million for the Fixed Income (Repo) segment, €1 million for the IRS segment and €1 for the Cash Equities segment.

In the event that this Skin in the Game has to be utilized, BME CLEARING shall replenish it immediately, after the process of dealing with a Member default, as stipulated in Chapter 8 of the Rule Book, has been completed.

In accordance with the provisions of the “*Default Fund*” Circulars for each segment, if the Default Fund has to be used once for over 50% of its amount, or used more than once within three consecutive months, in addition to the fund replenishment by Clearing Members, BME CLEARING’s dedicated own resources must be double the amount stated above for a period of at least three months.

- Please explain in detail BME CLEARING’s Default Waterfall.

BME CLEARING’s Default Waterfall is regulated in Article 37.6 of the Rule Book.

According to it, to cover the losses arising from a default, the CCP will use, in this order of precedence:

- All Initial Margins posted by the defaulting member plus any Individual Funds and/or Extraordinary Margins, if any, posted exclusively for that segment.
- Any other Initial Margins, Individual Funds and Extraordinary Margins, posted by the defaulting member in any other segment.
- Contribution of the defaulting member to the Default Fund in the segment where the default occurred and, if not sufficient, its contributions, if any, to the Default Fund in all other segments.
- BME CLEARING Dedicated Own Resources (part of its Equity) in the segment where the default occurred: *SKIN IN THE GAME*
- Contributions to the Default Fund of non-defaulting members only in the segment where the default occurred (prefunded), and replenishment of such contributions (assessment)
- Contributions to Service Continuity and Voluntary Service Continuity
- Remainder of BME CLEARING's Equity exceeding minimum regulatory capital

A more detailed explanation has been made in “BME Clearing Default Waterfall” document available under request.

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Collateral Management

- What types of assets are acceptable as collateral?

BME CLEARING only accepts as collateral, cash in euros, sovereign debts of the Eurozone with the highest rating, plus UK and USA sovereign debts, and equity securities included in the IBEX-35 index, therefore ensuring collateral's low credit and market risks, and high liquidity

Collateral may be posted in the form of:

- Cash in euros deposited by the Clearing Member, or by its Payment Agent in BME CLEARING's account in the payments module of the Target2 platform system.
- Securities pledged in IBERCLEAR, CLEARSTREAM BANKING (LUXEMBOURG) S.A. or EUROCLEAR BANK SA/NV.
- Simple Transfer of securities done by the Clearing Member to BME CLEARING's securities account in IBERCLEAR or in CLEARSTREAM.

- How is collateral marked to market?

BME CLEARING measures in real time the credit quality, market liquidity and price volatility of each asset accepted as collateral.

BME CLEARING system updates in near to real time, every 15 minutes, the prices of assets accepted as collateral: last price for equities provided by SIBE, bid-ask average provided by SENAF for Spanish sovereign debt, and bid-ask average calculated based on bid and ask price data per issue provided by Reuters or Bloomberg for non-Spanish sovereign debt.

- What are the applicable haircuts on the collateral and how often are these reviewed?

Haircuts are calculated in order to cover the stress-test fluctuations. Additionally, for fixed income securities, haircuts applied have as a floor those established by the ECB. The haircuts established by BME CLEARING minimize potential procyclical effects. BME CLEARING avoids as far as possible disruptive or big step changes in haircuts that could introduce procyclicality as the haircuts remain sufficiently stable by basing them on stress test or higher levels.

Please see relevant Circular "*Valuation of Securities posted as Margins*":
http://www.bmeclearing.es/docs/ing/normativa/circulares/2015/C-GEN-2015_14_Valuation_of_Securities_posted_as_Margins.pdf

- Does BME CLEARING apply any concentration limits to the collateral posted by its members?

BME CLEARING has concentration limits at the level of individual issuers; type of issuer; type of asset; each clearing member; and all clearing members. Concentration is monitored at the account level, at the Clearing Member level, and at the overall level for the CCP.

We apply the following limits:

Fixed income securities:

- The collateral provided by a Clearing Member in a single issue may not exceed 10% of the outstanding balance in circulation.
- The collateral provided by all Members in a single issue may not exceed 25% of the outstanding balance in circulation.

The exposure of a Clearing Member in a single issue to meet the margin requirements must not exceed:

- 10 times daily average trading volume for assets maturing within 11 years.
- 6 times daily average trading volume for assets maturing after 11 years.

Equities:

The number of shares posted as Margin Collateral by a Client or by a Member shall be limited depending on the Average Daily Volume, as stated in the “*Average Daily Volume*” General Circular. This limit is also applied at a Clearing Member level.

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- How does the FMI identify and mitigate possible specific wrong-way risk – for example, by limiting the collateral it accepts (including collateral concentration limits)?

BME Clearing establishes mechanisms to limit wrong-way risk as follows.

Clearing Members and Clients are not allowed to post their own shares or those of their groups as collateral, even if they were eligible.

Clearing Members cannot post more than a 30% of their total collateral using shares of issuers belonging to the same sector, nor can they post more than a 15% of their total collateral using shares of the same sole issuer.

- Please describe the investment policy. What kinds of risks is the CCP taking on cash investments?

BME CLEARING's investment strategy is highly conservative, prioritizing the security of the investment over the return on cash invested.

The funds are either deposited in cash in the CCP's cash accounts in TARGET2-Banco de España, [one account for CCP's own resources (NRBE 9094), the other for third-party collateral or funds (NRBE 9095)], or invested in financial instruments with low credit and market risks.

Clearing Members may decide not to invest and leave the cash in the CCP's third-party account with the Eurosystem. The CCP has no funds (own or third-party) posted in commercial banks.

Otherwise, collateral posted by Members in cash in the BME CLEARING account with TARGET2- Banco de España, may be invested in buy/ sell back transactions:

- Of Euro Area government debt with high credit ratings (investment grade), considered acceptable collateral by BME CLEARING as explained in the response to Article 46 (Spain, Germany, France, the Netherlands, Austria and Belgium). The credit risk of the financial instrument is accordingly low.
- At 1 day, normally overnight. As the investments are for 1 day, the market risk of a sharp, adverse movement in the value of the collateral exchanged for an investment is largely mitigated. Market risk is also mitigated by applying haircuts to the investments based on the type of government debt and its residual maturity segment. Moreover, the investments may be liquidated quickly, if required.
- With at least 4 counterparties (and usually 5-6), which must be banks with high creditworthiness (with a solvency level between S1 and S6, according to the circular Calculation of shareholders' equity and solvency). BME CLEARING has a standard ISDA GMRA contract that it signs with counterparties to the investments. By having several counterparties, BME CLEARING diversifies the investments, which reduces counterparty risk.
- BME CLEARING ensures that investments are diversified among several counterparties and that the percentage of the amount of margin invested relative to the own resources of each counterparty is limited to 10%.

BME CLEARING never invests in equities, and therefore does not invest in its own securities, consisting of shares of its parent company, Bolsas y Mercados Españoles (BME).

- [Can non-cash collateral be re-hypothecated?](#)

No.

- [How does BME CLEARING control Liquidity Risk?](#)

Circular "*Minimum Liquidity in BME CLEARING*" establishes that the CCP must have a minimum of 30% of all collateral posted in cash.

If this amount falls below 30%, Clearing Members whose cash collateral is not at least 30% in cash (Euro) in respect to their margins required by BME CLEARING for all concepts and in all Contract Groups, will be given five business days to recalibrate their collateral to attain this threshold.

A daily calculation will be performed to verify that, as a minimum, 30% of the total amount of margins required by BME CLEARING in respect of all concepts and in all segments has been posted in cash, in euros.

Following EMIR Regulation, Article 44 of Regulation (EU) 648/2012, Liquidity needs are reviewed on a daily basis, not just for a normal scenario on D+1 at 9 am but also considering the default of the two Members posing the greatest risk under stressed conditions or the two with the largest liquidity shortfalls.

On a daily basis, BME CLEARING accomplishes a **Liquidity Stress Test**. This calculation is intended to cover the liquidity of the two Clearing Members which may cause the highest liquidity shortfall under stress test circumstances and based on the Default Fund stress test risk calculations carried out by the CCP. Further, on a quarterly basis, BME CLEARING performs reverse stress tests, which are designed to pinpoint the market conditions, which need not necessarily be plausible, in which the CCP's liquid financial resources may be insufficient.

- Please detail available liquidity sources to BME CLEARING. Does the CCP have access to European Central Bank (ECB) funding? Does the CCP have available credit lines for liquidity purposes?

The main liquid resources available to BME CLEARING comprise the balance of the cash collateral posted by Members to cover their obligations with the CCP.

BME CLEARING has following Liquid Resources available:

- Cash collateral posted by all Clearing Members, CCP main funding mechanism (in aggregate terms, at least 30% of BME CLEARING margins required must be posted in cash);
- A part of its Capital posted in BME CLEARING's Guarantee Fund Account at Banco de España-TARGET2;
- The rest of its Capital invested in buy sell back transactions with counterparties with a solvency level between S1 and S6, according to the circular Calculation of shareholders' equity and solvency;
- In the case of a default, the bonds posted as collateral by the defaulting Clearing Member, which may be converted into cash by entering into a repo transaction with a different counterparty.
- Access to intraday financing from the Banco de España-TARGET 2 (more remote would be access to overnight funding that would only be applicable to an extreme case and pursuant to express authorisation from the European Central Bank's Governance Council).

These liquidity sources are reviewed on a daily basis and the CCP has real time alerts which advise of any changes which might pose a risk to meeting liquidity needs

BME CLEARING always has sufficient liquid resources as majority of collateral posted is in cash.

Additionally, the CCP has access to the ECB intraday facility, and agreements with 3 banks with access to the overnight ECB facility by which the CCP can obtain liquidity in exchange of its collateral held by entering into a repo transaction or by selling such collateral to them in the extreme situation of illiquid repo and bond markets.

BME CLEARING does not have any agreements with liquidity providers although it does have a relationship with Entities, Members of the CCP, with whom it carries out daily investments (at least 4 different Entities, for diversification purposes). The CCP shall be able to use these four Entities to sell bonds and repos in order to obtain liquidity.

Business Continuity and Disaster Recovery

- What is the current level of automation of your platforms? Are there any elements of your front to back processes that require manual intervention?

Front to back processes are fully automated. MEFF (Financial Derivatives and Energy Derivatives exchange) is connected to BME CLEARING Derivatives and BME CLEARING Power. SENAF trading platform is connected to BME CLEARING Repo and participants can also register bilateral/OTC transactions in BME CLEARING Repo through Iberclear (Spanish CSD) terminals.

- Does the BME Clearing have a highly automated operating environment with considerable straight-through processing (STP)?

Yes, BME Clearing has a highly automated system. It has interfaces with several systems: MEFF Exchange system, SENAF, IBERCLEAR, Bank of Spain, etc.

BME Clearing also offers to its members a FIX protocol API and end-of-day files with information that allows them to automatically handle all the information related to all transactions cleared by BME CLEARING.

- Does BME CLEARING have a Business Continuity Plan?

Yes, you can find a detailed description of our Business Continuity Policy in our web site:

<http://www.bmeclearing.es/docs/docsSubidos/022-Section III - 3 2 - Annex 3 - Continuity Policy 06 06 14 - EN.pdf>