KDPW CCP

Assessment of KDPW_CCP's compliance against the CPMI-IOSCO Principles for financial market infrastructures (PFMI) and the disclosure framework associated to the PFMIs

Warsaw, 06.02.2023

KDPW CCP

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Executive Summary

This document provides a summary of self-assessment of KDPW_CCP S.A. against the Principles for Financial Market Infrastructures (PFMIs)[1] and related documents, namely Principles for Financial Market Infrastructures: Disclosure framework and Assessment methodology[2], both issued by the Committee on Payment and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO).

The self-assessment has not been conducted with regards to the *Principle 11* (Central securities depositories), *the Principle 24* (Disclosure of market data by trade repositories) as they are not applicable to CCPs. As KDPW_CCP does not provide exchange-of-value settlement, the self-assessment does not include *Principle 12* as it is not applicable to KDPW_CCP.

[1] CPMI-IOSCO (2012), *Principles for Financial Market Infrastructures,* April, https://www.bis.org/cpmi/publ/d101.htm.
[2] CPMI-IOSCO (2012), *Principles for financial market infrastructures: Disclosure framework and Assessment methodology,* December, https://www.bis.org/cpmi/publ/d106.htm

KDPW CCP

Overview of KDPW_CCP S.A.

KDPW_CCP S.A. is a Poland-based central counterparty (CCP) within the meaning of the Regulation of the European Parliament and of the Council (EU) No 648/2012 of 4 July 2012 on OTC derivatives, central counterparties, and trade repositories (EMIR), and clears transactions in cash instruments and derivatives in organised and OTC trading.

KDPW_CCP's activity is strictly regulated by the EU law, namely EMIR and respective delegated and implementing acts, and as well the national legislation - the Act on Trading in Financial Instruments of 29 July 2005 (as amended), the Code of Commercial Companies and respective acts regulating business activity, to which relevant EU provisions have been implemented. KDPW_CCP is only active in the Polish market, hence, it is only regulated by the EU and Polish legislation.

Under its internal rules, KDPW_CCP becomes a counterparty to each transaction accepted for clearing. This is done through novation whereby the original legal relation between the seller and the buyer is irrevocably interrupted at the moment of acceptance of the transaction for clearing while KDPW_CCP becomes the buyer for the selling member and the seller for the member who buys the financial instrument in the transaction submitted for clearing.

KDPW_CCP is an EMIR authorised CCP that operates on the basis of authorisation granted by the Polish Financial Supervision Authority (PFSA) on 8 April 2014 that was further extended on 9 August 2016, 31 October 2019 and on 3 March 2022.

PFSA's decisions authorise KDPW_CCP to clear trades concluded in the following instruments:

- In organised trading:
  - PLN-denominated securities (debt and equity) and derivatives (index, equity, debt, interest rate and currency);
  - EUR-denominated debt and equity instruments,
  - PLN-denominated repo trades.

- In non-organised trading (OTC):
  - PLN-denominated interest rate derivatives (FRA, IRS, OIS, Basis Swap);
  - EUR-denominated interest rate derivatives (FRA, IRS, OIS, Basis Swap);
  - PLN-denominated debt instruments;
  - PLN-denominated repo and sell/buy-back trades.

The decisions can be obtained via this link: PFSA's decisions

As of 6 February 2023, KDPW_CCP had 29 clearing members in organised trading and 14 clearing members in OTC trading. In case of organised trading, clearing members consisted of credit institutions, development bank, investment firms. As for OTC trading, clearing members consisted of credit institutions and development bank.

Further information concerning clearing members is provided in the description of the *Principle 18: Access and participation requirements)*.

Principle 1: Legal basis

An FMI should have a well-founded, clear, transparent, and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

In addition to the EMIR regulation and respective delegated and implementing acts, the functioning of KDPW_CCP is regulated by KDPW_CCP Statue and relevant rulebooks that cover all material aspects of KDPW_CCP's activities, i.e. by defining rights and obligations of KDPW_CCP and its clearing members. The enforceability of these documents is assured by Polish Code of Commercial Companies (as amended), respective acts regulating business activity and the Act on Trading in Financial Instruments of 29 July 2005 (as amended).

Key consideration 1: *The legal basis should provide a high degree of certainty for each material aspect of an FMI's activities in all relevant jurisdictions.*

KDPW_CCP is a wholly owned subsidiary of KDPW which is the Central Securities Depository of Poland within the meaning of CSDR regulation. As of 6 February 2023, KDPW is owned by the State Treasury, the Warsaw Stock Exchange and the National Bank of Poland, wherein each shareholder holds 1/3 of the KDPW's shares. Both KDPW and KDPW_CCP constitute the KDPW Group.

As KDPW_CCP provides clearing services, following aspects of its activities are considered as material (i.e. requiring a high degree of legal certainty):

- margin arrangements (*Principle 6*: Margin),
- liquidity risk (*Principle 7*: Liquidity risk),
- settlement finality (*Principle 8*: Settlement finality),
- participant-default rules and procedures (*Principle 13*: Participant-default rules and procedures).

The above-mentioned aspects are regulated in relevant rulebooks of KDPW_CCP. The high level of legal certainty in these aspects is ensured by the requirement for KDPW_CCP to obtain approval of PFSA of rulebooks and modifications to the rulebooks regulating *inter alia* these material aspects.

Depending on the needs of KDPW_CCP and in situations where market participants expect it, in particular if the regulations are unclear and there is a lot of room for interpretation of common regulations, KDPW_CCP asks for legal opinions.

As mentioned above, KDPW_CCP operates only in the Polish market. Its clearing members are entities from the EU Member States to which the EU law is directly applicable.

KDPW_CCP rules can be divided into following three categories:

- corporate regulations,
- organised trading rules,
- OTC trading rules.

Corporate regulations consist of the Statute of the KDPW_CCP, the Rules of the Supervisory Board of KDPW_CCP, the Rules of the Risk Committee, the Rules of the KDPW_CCP Management Board. These rules can be obtained via links below:

KDPW_CCP corporate regulations

Statute of KDPW_CCP

Rules concerning organised trading comprise of the *Rules of Transaction Clearing* (organised trading), the *Detailed Rules of Transaction Clearing* (organised trading), the *Rules of the Clearing Guarantee Fund*, the *Rules of the WSE BondSpot ATS guarantee fund*, the *Agreement on access to KDPW_CCP's services via the GUI Application*, all of which can be obtained via this link: KDPW_CCP organised trading rules

As for rules concerning OTC trading, they consist of the *Rules of Transaction Clearing* (OTC trading), the *Detailed Rules of the OTC Clearing System*, the *Agreement on access to KDPW_CCP's services via the GUI Application*, which can be obtained via this link: KDPW_CCP OTC trading rules

In case of novation, its legal basis is the Act on Trading in Financial Instruments. KDPW_CCP regulates novation in the *Rules of Transaction Clearing* (organised and OTC trading). Under these provisions the original legal relationship between the seller and the buyer is irreversibly interrupted upon acceptance of the transaction for clearing, and KDPW_CCP becomes the buyer for the selling participant and the seller for the participant buying the financial instrument indicated in the transaction submitted for clearing.

As for netting arrangements and settlement finality in the EU they are regulated by Settlement Finality Directive that has been transposed into the Polish law, namely by the Act on settlement in payment and securities settlement systems and the principles of supervision over these systems of 24 August 2001 (as amended). In this respect, KDPW_CCP complies with the relevant provisions of this Act. In case of netting arrangements, they are regulated in the *Rules of Transaction Clearing* (organised and non-organised trading), the *Detailed Rules of Transaction Clearing* (organised trading) and the *Detailed Rules of the OTC Clearing System*.

Key consideration 2: *An FMI should have rules, procedures, and contracts that are clear, understandable, and consistent with relevant rules and regulations.*

KDPW_CCP's Statue and rulebooks are written in clear and understandable way. They are available online in Polish and English version for each interested party.

KDPW_CCP's documentation is compliant with EMIR and all other EU and national provisions. Chief Compliance Officer (CCO) is responsible for the compliance of KDPW_CCP's activities with applicable laws, rules and internal regulations.

Under the applicable law, mainly the Act on Trading in Financial Instruments and certain EMIR provisions KDPW_CCP is obliged to obtain the approval of PFSA of its rulebooks or changes to its

rulebooks. With regards to the certain aspects specified in the Act, the approval is preceded by the opinion of the Governor of National Bank of Poland. In addition, the vast majority of documents are subject to notification to PFSA.

Key consideration 3: *An FMI should be able to articulate the legal basis for its activities to relevant authorities, participants, and, where relevant, participants' customers, in a clear and understandable way.*

If required KDPW_CCP's documents, in particular the Statute and rulebooks, are available online for each interested party, whereas PFSA has access to all KDPW_CCP's documentation. The legal basis is indicated in each document.

Key consideration 4: *An FMI should have rules, procedures, and contracts that are enforceable in all relevant jurisdictions. There should be a high degree of certainty that actions taken by the FMI under such rules and procedures will not be voided, reversed, or subject to stays.*

KDW_CCP is subject to the PSFA's supervision and all changes to the KDPW_CCP's regulations require approval by a supervisor before they come into force. In addition, under the applicable provisions KDPW_CCP cannot change acquired rights.

No court has ever held any of KDPW_CCP's relevant activities or arrangements under its rules and procedures to be unenforceable.

Key consideration 5: *An FMI conducting business in multiple jurisdictions should identify and mitigate the risks arising from any potential conflict of laws across jurisdictions.*

This consideration is not applicable as KDPW_CCP mainly operates in the Polish market.

Assessment of principle:
Observed

Principle 2: Governance

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI and explicitly support financial stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

In accordance with EMIR provisions KDPW_CCP operates under robust governance arrangements that are clear and transparent, promote the safety and efficiency of KDPW_CCP and support financial stability of the financial system. The KDPW_CCP's Management Board, the Supervisory Board and the Supervisory Board Committees consist of individuals with appropriate knowledge and skills as well as good reputation. The members of the Supervisory Board are also members of the Supervisory Board Committees: the Audit Committee, the Remuneration Committee and the Strategy Committee. Independent members of the Supervisory Board also sit in the Risk Committee. All information regarding governance arrangements, including the composition and rules of all of these bodies, is publicly disclosed on KDPW_CCP's website.

Key consideration 1: *An FMI should have objectives that place a high priority on the safety and efficiency of the FMI and explicitly support financial stability and other relevant public interest considerations.*

KDPW_CCP is a member of the KDPW Group, which in addition to typical post-trade infrastructure services also provides value-added services closely related to the core business of the Group in a comprehensive offer for financial market participants active in Poland.

As a member of the KDPW Group, KDPW_CCP pursues the mission and vision of the Group and takes initiatives that grow the value of KDPW_CCP, develop a portfolio of services of the Group, and unlock synergies between clearing services, settlement, and depository services.

The mission of the KDPW Group is to offer services in an effective and reliable way ensuring safety of trade on the financial market, including depository, clearing and settlement infrastructure, trade reporting, and value-added services.

The strategic goals of KDPW_CCP for years 2020-2024 are clearly identified and publicly available on its website under this link: KDPW_CCP's strategy

KDPW_CCP's strategic goals are:

- to enhance the competitive edge and complementarity of services provided by KDPW_CCP S.A. and to maintain their high quality including the clearing of diverse asset classes,
- to expand the scale of KDPW_CCP S.A. OTC derivatives clearing, and services combined with effective risk management aiming to mitigate systemic risk.

Both strategic goals are comprised of three specific goals.

Furthermore, there is also one common strategic goal for KDPW Group companies which is to leverage and strengthen synergies and to maintain high quality of IT infrastructure in the KDPW Group aiming to improve effective operation of the business lines faced with technological challenges while protecting the profile of an infrastructure institution.

Key consideration 2: *An FMI should have documented governance arrangements that provide clear and direct lines of responsibility and accountability. These arrangements should be disclosed to owners, relevant authorities, participants, and, at a more general level, the public.*

KDPW_CCP has clear and documented governance arrangements that define the direct line of responsibility and accountability. KDPW_CCP's organisation structure is publicly disclosed on its website. There, the composition of the Management Board, the Supervisory Board, the Supervisory Board Committees and the Risk Committee is described in detail. Along with the personal composition of the indicated bodies, all information regarding governance arrangements, in particular rules for functioning of these bodies, i.e. organisation and procedures, are disclosed.

Information on particular KDPW_CCP's bodies is available via links below:

The Management Board and the Supervisory Board

The Supervisory Board Committees

The Risk Committee

In addition, regulations on functioning of these bodies can is available via this link: KDPW_CCP corporate regulations

Furthermore, the short overview of the KDPW_CCP's structure can be obtained via this link: KDPW_CCP's organisational structure

Key consideration 3: *The roles and responsibilities of an FMI's board of directors (or equivalent) should be clearly specified, and there should be documented procedures for its functioning, including procedures to identify, address, and manage member conflicts of interest. The board should review both its overall performance and the performance of its individual board members regularly.*

KDPW_CCP's Management Board consists of President of Management Board and Vice-President of Management Board. The responsibilities of the Management Board are specified in the *Rules of the KDPW_CCP Management Board* which are available online via this link: the Rules of the Management Board.

Under the *Statute of KDPW_CCP* members of the Management Board are appointed by the Supervisory Board following a selection procedure which shall check and evaluate the qualifications of the candidates and select the best candidate. A member of the Management Board should comply with the conditions laid down in article 22 in conjunction with article 23 of the Act of 16 December 2016 on the Terms of Management of State Assets.

Both members direct the activities of KDPW_CCP, manage its business affairs and its assets and represent KDPW_CCP externally. The Management Board is also responsible for supervision of the work of organisational units and persons performing specific functions within KDPW_CCP according to its organisational structure and division of responsibilities specified in the internal rules of KDPW_CCP.

In case a conflict of interest situation arises between the interests of a member of the Management Board, his or her associated person, and the interests of the company, a clearing system participant,

or service provider, the Rules of the KDPW_CCP Management Board presume procedure according to which the member of the Management Board shall inform the remaining Management Board members and KDPW_CCP of this fact, in accordance with the provisions of the KDPW_CCP's conflict of interest prevention policy, and shall refrain from speaking during the discussion and from voting on the approval of a resolution in the matter in which the conflict of interest has arisen. The member of the Management Board may request that this be indicated in the minutes of the meeting.

The Supervisory Board consists of six members among whom three are independent. The organisation and procedures of the Supervisory Board are specified in the *Rules of the KDPW_CCP Supervisory Board*. The Rules are available online via this link: the Rules of the Supervisory Board.

The Supervisory Board is chaired by the Chairperson that directs the work of the Board and represents it to other authorities of the KDPW_CCP and to other parties.

The Supervisory Board is responsible for passing resolutions or giving opinions on matter reserved for its competences according to the provisions of the KDPW_CCP Statue.

As specified in the *Rules of the Supervisory Board of KDPW_CCP*, in the event of any circumstances giving rise to a conflict of interests between the interest of a member of the Supervisory Board, his or her spouse, relatives up to the second degree of affinity or consanguinity or persons in personal relations with him or her and the interest of KDPW_CCP, a member of the clearing system or a counterparty of KDPW_CCP, the member of the Supervisory Board shall notify the other members of the Supervisory Board and KDPW_CCP thereof according to KDPW_CCP's conflict of interest prevention and management policy and shall refrain from taking the floor during the discussion and from voting on a resolution on the matter concerned by the conflict of interests. The member of the Supervisory Board may request that a record thereof be made in the minutes of the meeting of the Supervisory Board, the Audit Committee or the Remuneration Committee, respectively

Within the Supervisory Board of KDPW_CCP the following Committees have been established:

- the Audit Committee,
- the Remuneration Committee,
- the Strategy Committee.

The composition of each Committee is publicly disclosed what is described in the previous key consideration. Each Committee is comprised of the members of the Supervisory Board.

The Audit Committee is comprised of four individuals among which three are independent members of the Supervisory Board. According to the *Rules of the Supervisory Board of KDPW_CCP* the Committee is responsible *inter alia* for:

- monitoring the financial reporting process in KDPW_CCP,
- monitoring the effectiveness of the internal control system, internal audit and the risk management function including compliance risk in KDPW_CCP,
- assessment of memos and reports provided by persons responsible for internal audit in KDPW_CCP and reporting the results of such assessment to the Supervisory Board;
- monitoring financial audit activities;

- monitoring the independence of the firm of auditors and the independence of the auditor.

The Remuneration Committee consists of three individuals among which one is independent member of the Supervisory Board. Under the Rules of the *Rules of the Supervisory Board of KDPW_CCP* it is responsible *inter alia* for:

- providing recommendations to the Supervisory Board on matters concerning:
    - setting the policy of and implementing remuneration in KDPW_CCP;
    - setting the remuneration of members of the Management Board;
- assessment of the amount of remuneration paid to members of the Management Board in relation to the scope of their responsibilities and their performance;
- regular review of the remuneration policy in KDPW_CCP.

The Strategy Committee consists of three individuals among which one is independent member of the Supervisory Board. Under the Rules of the Strategy Committee, it is advisory body of the Supervisory Board regarding the strategy of KDPW_CCP.

Under art. 28 of EMIR in KDPW_CCP Risk Committee has been appointed. It consists of independent members of the Supervisory Board, three delegates of representative associations or organisations of clearing members of KDPW_CCP, three delegates of representative associations or organisations of counterparties to trade cleared by KDPW_CCP other than KDPW_CCP clearing members.

The Risk Committee provides opinions and advice to the Company on all matters which may impact risk management, in particular any significant change of the risk model, clearing member default procedures, criteria of granting clearing member status, clearing of new classes of derivative instruments or outsourcing. The Risk Committee also provides opinions on transaction clearing rules and detailed transaction clearing rules.

The rules of the Risk Committee are available online via this link: the Rules of the Risk Committee

Under applicable provisions, the General Meeting grants the Management Board and the Supervisory Board a discharge. The discharge granted the Management Board is subject to the opinion of the Supervisory Board.

In addition, according to the PSFA's guidelines, corporate governance rules are applied in KDPW_CCP. The rules concerning duties and performance of the Management Board and the Supervisory Board are established at the level of the General Meeting.

Key consideration 4: *The board should contain suitable members with the appropriate skills and incentives to fulfil its multiple roles. This typically requires the inclusion of non-executive board member(s).*

KDPW_CCP's Management Board members both have strong expertise and long-standing experience in the Polish financial market. Please refer to the key consideration 3 above for further details on the composition and responsibility of the Management Board.

According to the *Statute of KDPW_CCP* eligible as a member of the Supervisory Board shall be a person of integrity who has the necessary specialty knowledge of financial services, risk management and

clearing services. All KDPW_CCP's Supervisory Board members fulfil these criteria and have strong expertise and long-standing experience in the Polish financial market. They represent Polish financial industry and academic community. Please refer to the key consideration 3 above for further details on the composition and responsibility of the Supervisory Board.

The *Statute of KDPW_CCP* specifies independence criterion. A member of the Supervisory Board is obliged to present statement of fulfilment of the independence criterion. The template of the statement is included in the *Rules of the Supervisory Board of KDPW_CCP* which are available online.

Key consideration 5: *The roles and responsibilities of management should be clearly specified. An FMI's management should have the appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of the FMI.*

Please refer to the key consideration 3 for description of the roles and responsibilities of the KDPW_CCP's Management Board and the Supervisory Board.

The roles and objectives of the management are evaluated by the General Meeting of KDPW_CCP. According to the *Statue of KDPW_CCP* the Management Board shall present to the General Meeting annual reports on representation expenses, as well as expenses for legal services, marketing services, public relations and social communication services, and management consulting services, as well as annual reports on compliance with best practice, referred to in Article 7(3) of the Act of 16 December 2016 on the terms of management of public property, together with the Management Board's report on the activities of KDPW_CCP in the previous financial year.

The process of removal of the Management Board is regulated in the Code of Commercial Companies. As for the members of Supervisory Board they shall be dismissed by the General Meeting. The dismissal procedure is specified in the Statue of KDPW_CCP.

Under art. 3(3) of RTS 153/2013 KDPW_CCP established clear, consistent and well-documented lines of responsibility. This organisational structure is specified in the internal document of KDPW_CCP, namely the *Organisational Regulations of KDPW_CCP*, that also defines the scope of activities of the organisational units, the scope of competences and responsibility for managerial and independent positions. The short review of the organisational structure of KDPW_CCP can be found via this link: KDPW_CCP's organisational structure

In order to ensure that KDPW_CCP's management has appropriate experience, a mix of skills, and the integrity necessary to discharge their responsibilities for the operation and risk management of KDPW_CCP, the company employs a Chief Risk Officer (CRO), a Chief Compliance Officer (CCO) and a Chief Technology Officer (CTO). Under art. 3(3) of RTS 153/2013 these functions are carried out by different individuals.

The function of the CRO is performed by Managing Director. The CRO is responsible directly to the KDPW_CCP's Management Board and reports to the Management Board and the Supervisory Board.

The CCO is responsible directly to the President of the KDPW_CCP's Management Board and reports to the Management Board and the Supervisory Board.

The CTO is a member of the Management Board and is responsible directly to the Supervisory Board.

Key consideration 6: *The board should establish a clear, documented risk-management framework that includes the FMI's risk-tolerance policy, assigns responsibilities and accountability for risk decisions, and addresses decision making in crises and emergencies. Governance arrangements should ensure that the risk-management and internal control functions have sufficient authority, independence, resources, and access to the board.*

KDPW_CCP established a clear and sound *Risk Management Policy* constituting risk-management framework for all material risks. The document specifies risk-tolerance policy, assigns responsibilities and accountability for risk decisions. In addition, it includes detailed operating procedures and decision-making procedures in crises and emergencies. The document was approved by the Supervisory Board and adopted by the resolution of the Management Board. The document is also a subject of notification to the PSFA. The document is also accompanied by detailed rules and procedures that have been specified in other internal regulations.

The KDPW_CCP bodies and organisational units participating in the risk-management process are the Supervisory Board, the Management Board, the Risk Committee, the Audit Committee, the CRO, Risk Management Section and the CCO.

Risk Management Section and the CRO are responsible for appropriate disclosure and reporting of information concerning risk management in order to enable KDPW_CCP's bodies and other organisational units to properly identify, assess and limit risk. Reporting is performed on regular and *ad hoc* basis. In addition, the CRO is responsible for providing immediate information on significant events affecting risk management to the Management Board of KDPW_CCP and the Supervisory Board of KDPW_CCP (the Audit Committee).

Under *Risk Management Policy* risk management framework is subject to validation by a qualified and independent entity at least once a year. KDPW_CCP reviews models, methodologies, market data, rules, and procedures at least once a year in order to ensure their appropriateness and adequacy.

Key consideration 7: *The board should ensure that the FMI's design, rules, overall strategy, and major decisions reflect appropriately the legitimate interests of its direct and indirect participants and other relevant stakeholders. Major decisions should be clearly disclosed to relevant stakeholders and, where there is a broad market impact, the public.*

KDPW_CCP ensures that its stakeholders actively participate in KDPW_CCP's decision making. In particular, decisions on major areas of KDPW_CCP's activity are consulted with the Risk Committee which, as described in the key consideration 3, consists of members that represent relevant stakeholders of KDPW_CCP. Under the *Rules of the Risk Committee*, the Management Board shall notify PSFA of all decisions made contrary to the opinion of the Risk Committee.

The *Rules of the Risk Committee* specify procedure in case of conflict of interests with regard to individual matters considered by the Committee.

KDPW_CCP discloses on its website major information regarding its activities, operations and risk management. Information is published in Polish and English language. Disclosure policy of KDPW_CCP is specified by *the Information Disclosure Policy in KDPW_CCP* which is available via this link: Information disclosure policy

Assessment of principle:
Observed

Principle 3: Framework for the comprehensive management of risks

An FMI should have a sound risk-management framework for comprehensively managing legal, credit, liquidity, operational, and other risks.

KDPW_CCP has a sound risk-management framework that is comprised of *Risk Management Policy* and accompanied by detailed rules and procedures that have been specified in other internal regulations. The risk-management framework covers all material risks identified within KDPW_CCP.

Under the EU provisions KDPW_CCP maintains the *Recovery Plan* that was adopted by the Management Board and then, subject of approval of PSFA. The *Recovery Plan* is reviewed by KDPW_CCP a least annually and in any case after any change to KDPW_CCP's legal or organisational structure or business or financial situation which should have a material effect on this plan. If needed, KDPW_CCP's updates its Recovery Plan.

Key consideration 1: *An FMI should have risk-management policies, procedures, and systems that enable it to identify, measure, monitor, and manage the range of risks that arise in or are borne by the FMI. Risk-management frameworks should be subject to periodic review.*

As mentioned previously, the risk management is well founded in the KDPW_*CCP Risk Management Policy* document. The internal policy outlines the risk management processes by providing description of identified risks, setting risk tolerance levels, methods of measuring, monitoring and reporting and actions undertaken to mitigate the risks, as well as the structure of risk management. The changes to the risk management framework are subject to the opinion of the Risk Committee, the adoption of the Management Board, the approval of the Supervisory Board and a validation by a qualified and independent entity. It is also subject of notification to the PSFA.

KDPW_CCP is subject to the following, identified as relevant, types of risk:

- credit risk,
- market risk,
- liquidity risk,
- operational and legal risk,
- economic/business risk.

The overarching objectives of KDPW_CCP risk management include:

- to ensure and to maintain KDPW_CCP's capability of meeting obligations and financial liabilities and achieving the goals of its activity;
- to prevent crises;
- to identify and define solutions ensuring safe operation of KDPW_CCP and meeting of financial liabilities in the event of clearing member default or other crisis.

Ways of administering the individual types of risks are detailed in the KDPW_CCP statute, rules, policies, risk management procedures and concluded agreements.

The risk management system includes:

- risk identification – defining the types of risk, risk factors and significance of risks;

- risk measurement and assessment – defining quantitative and qualitative risk measurement methods/measures, performing relevant tests (including stress-testing, sensitivity analysis, backtesting);
- risk monitoring – controlling the accepted risk level and use of set limits, assessing the effectiveness and adequacy of risk measurement tools and methods;
- risk reporting – presentation of information on the risk profile, identified potential threats and taken preventive actions to relevant entities/units;
- taking mitigating measures – taking measures to mitigate risk (including adjusting risk parameters, implementation of regulations, an internal limit system, and risk insurance).

KDPW_CCP assesses the relevance of identified risks based on adopted criteria and sets quantitative indicators to limit its risk appetite and monitor the effectiveness of the risk management framework. These indicators include monitoring limits, testing programs (backtesting, haircuts testing, 'cover 1' and 'cover 2' stress-testing, reverse stress-testing, sensitivity testing), liquidity controls, credit risk assessments of counterparties, capital requirements and precautionary standards.

All policies, procedures and controls are consistent with the KDPW_CCP risk tolerance and capacity and subject to periodic internal reviews and independent validations.

Under the *Risk Management Policy* risk management framework is subject to validation by a qualified and independent entity at least once a year. KDPW_CCP reviews models, methodologies, market data, rules, and procedures at least once a year in order to ensure their appropriateness and adequacy.

Key consideration 2: *An FMI should provide incentives to participants and, where relevant, their customers to manage and contain the risks they pose to the FMI.*

KDPW_CCP publicly discloses on its website sufficient information regarding its risk-management framework broken down into organised trading and OTC trading. With this regard following information is published:

Description of the transaction clearing guarantee system – organised trading

Clearing Guarantee System Waterfall – organised trading

SPAN®– margin calculation methodology – organised trading

Description of the transaction clearing guarantee system – OTC trading

Clearing Guarantee System Waterfall – OTC trading

Information on position concentration limits – OTC trading

Expected shortfall – calculating initial margin – OTC trading

As specified in descriptions of Clearing Guarantee System Waterfall (for organised trading and OTC trading), KDPW_CCP imposes on its clearing members obligations to provide KDPW_CCP with financial resources primarily in the form of initial margin, default fund contributions and additional unfunded contributions (up to 50 per cent of the last contribution's value).

Given the fact that the level of initial margin and default fund contributions are proportional to the risk stemming from cleared transaction, clearing members are incentivised to manage and contain the risks they bring to KDPW_CCP. In particular, members are incentivised to reduce the risk they bring to KDPW_CCP by means of monitoring and of their operational performance (or transaction limits that limit the intraday risk exposure) and their contributions to the clearing guarantee system being proportional to risk that stems from their exposures.

The initial margin for organised trading is calculated with the use of SPAN® methodology. In case of OTC trading, initial margin is calculated with the use of expected shortfall risk measure. For organised market KDPW_CCP publishes margin calculator that functions as margin simulation tool enabling clearing members to simulate the amount of SPAN® initial margin by choosing appropriate parameters. KDPW_CCP calculates margins against current members' positions in close to real time and at the end of day when it utilizes closing prices. Margins may take the form of initial margin which is aimed to secure future price changes and variation margin which is intended to cover the risk connected with marking-to-market process. More detail on initial margin calculations is included in the assessment of *Principle 6: Margin)*.

As for default fund contributions, KDPW_CCP determines the minimum level of members' contributions to individual default fund and reviews the methodology for calculating the value of funds at least once a year. Default fund contributions of individual clearing members are determined in proportion to their average exposure value (*uncovered risk*), taking into account the minimum contribution at the level of the member specified in the rules of the relevant default fund.

Key consideration 3: *An FMI should regularly review the material risks it bears from and poses to other entities (such as other FMIs, settlement banks, liquidity providers, and service providers) as a result of interdependencies and develop appropriate risk-management tools to address these risks.*

The *Risk Management Policy* covers all material risks that are identified within KDPW_CCP. It means that also external risks that have sources in other FMIs are assessed and monitored. It also assesses and monitors risks that KDPW_CCP poses to other FMIs.

The periodic assessment regarding significance of risks is performed based on criteria described in the *Risk Management Policy.* In addition, for each kind of risk, KDPW_CCP has defined acceptable level of risk. KDPW_CCP has, therefore, appropriate tools for addressing these risks.

As these procedures are performed under the *Risk Management Policy,* the rules for reviewing these risks are the same as for the review of the entire document, i.e. at least once a year. They are validated by a qualified and independent entity at least once a year.

KDPW_CCP carries out its money settlements with the use of account held at National Bank of Poland (DSP NBP) or with the use of TARGET 2 system. If financial resources within these two channels are insufficient, KDPW_CCP has at its disposal tools that enable to carry out these settlements and to minimise credit and liquidity risks. These tools have been defined in the *Liquidity Plan.*

As for liquidity risk that can have its source in liquidity providers, it is managed according to rules and procedures specified in the *Liquidity Plan* and accompanying documents.

The *Liquidity Plan* is subject to periodic (at least once a year) verification and updating performed by the Risk Management Team. In addition, the verification should be performed in special situations, such as underwriting a new type of instruments, changes in the risk management model, changes in regulations, changes in the market, which could affect the assumptions underlying liquidity management.

The Liquidity Plan, as well as its changes, are subject to approval and / or validation by relevant entities / authorities in accordance with the applicable rules in this regard.

As for operational risk that can have its source in service providers, it is managed at the level of the KDPW Group according to rules and procedures specified in the *Operational Risk Management Policy.* This *Policy* and other elements of the operational risk management strategy is updated on an ongoing basis in order to take into account any significant changes related to the KDPW Group's operations, business and legal environment, technology development, as well as changes to operational risk management standards.

Detailed information on the specific risk management tools that are used by KDPW_CCP in order to address the risks raised in this key consideration, are described in responses to *Principles 7, 9, 17 and 20.*

Key consideration 4: *An FMI should identify scenarios that may potentially prevent it from being able to provide its critical operations and services as a going concern and assess the effectiveness of a full range of options for recovery or orderly wind-down. An FMI should prepare appropriate plans for its recovery or orderly wind-down based on the results of that assessment. Where applicable, an FMI should also provide relevant authorities with the information needed for purposes of resolution planning.*

Under the provisions of the Regulation (EU) 2021/23 of the European Parliament and of the Council of 16 December 2020 on a framework for the recovery and resolution of central counterparties and amending Regulations (EU) No 1095/2010, (EU) No 648/2012, (EU) No 600/2014, (EU) No 806/2014 and (EU) 2015/2365 and Directives 2002/47/EC, 2004/25/EC, 2007/36/EC, 2014/59/EU and (EU) 2017/1132 (hereinafter CCP-RR regulation), KDPW_CCP designs and maintains the *Recovery Plan*.

KDPW_CCP maintains the *Recovery Plan* in order to provide measures to be taken in the case of default and non-default events and combinations of both, in order to restore its financial soundness, without any extraordinary public financial support, and allow it to continue to provide critical functions following a significant deterioration of its financial situation or a risk of breaching its capital and prudential requirements under EMIR regulation.

In the *Recovery Plan* several groups of stress scenarios have been defined, one of which is solely devoted to the sub-scenarios where KDPW_CCP is unable to provide its critical functions. These groups of stress scenarios have been developed in accordance with ESMA guidelines issued on the basis of CCP-RR regulation. They take into account all independent and related risks to which KDPW_CCP is exposed.

For each group of stress scenarios, the KDPW_CCP's *Recovery Plan* foresees a set of recovery tools that can be used in case of materialisation of given stress scenario. In addition, certain preparatory tools that facilitate implementation or recovery plan are foreseen.

The *Recovery Plan* is adopted by the Management Board and then, subject of approval of PSFA. The *Recovery Plan* is reviewed by KDPW_CCP a least annually and in any case after any change to KDPW_CCP's legal or organisational structure or business or financial situation which should have a material effect on this plan. If needed, KDPW_CCP's updates its *Recovery Plan.*

Assessment of principle:
Observed

Principle 4: Credit risk

An FMI should effectively measure, monitor, and manage its credit exposures to participants and those arising from its payment, clearing, and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure to the CCP in extreme but plausible market conditions.

KDPW_CCP has a robust risk management framework to manage its credit risk. This framework is dedicated to measure, monitor, mitigate and manage the credit risk in all operated service lines. One of the main purposes of credit risk management is to maintain resources in the clearing guarantee system that would well address collateral needs in case of a default of the two clearing members and their group members with the greatest exposures under extreme but plausible market conditions.

Key consideration 3 is not described here as it is not applicable to CCPs.

Key consideration 1: *An FMI should establish a robust framework to manage its credit exposures to its participants and the credit risks arising from its payment, clearing, and settlement processes. Credit exposure may arise from current exposures, potential future exposures, or both.*

As described in *Principle 3*: Framework for the comprehensive management of risks, KDPW_CCP has established a robust and comprehensive *Risk Management Policy* to manage its credit exposures to its members and the credit risks arising from its payment, clearing and settlement processes. As mentioned previously, the document is accompanied by other documents specifying detailed rules and procedures.

KDPW_CCP manages its credit exposures to its clearing members, arising from its payment, clearing and settlement processes by:

I. Running the multi-level clearing guarantee system which includes:
    a. Risk assessment of a clearing member which is done at the application level and periodically by ensuring fulfilment of capital requirements and precautionary standards as set in rules.
    b. Calculation of initial margin requirements to manage potential future exposures with appropriate confidence level and marking to market positions.
    c. Calculation of default fund contributions.
    d. Maintaining sufficient own equity.
    e. Ensuring other prefunded and not prefunded financial resources that may be called in the event of a default.

II. Implementation of the default management procedure determining action plan in the event of a default of a KDPW_CCP member.
III. Managing accepted collateral list and haircuts
IV. Conducting testing programs
V. Implementation of the investment policy.
VI. Monitoring of intraday limits:

As mentioned previously, the *Risk Management Policy* is reviewed at least once a year or each time in case of expanding into a new market, new type of instruments, application of new methodologies and models and introducing material changes in already applicable methodologies and models.

Key consideration 2: *An FMI should identify sources of credit risk, routinely measure and monitor credit exposures, and use appropriate risk-management tools to control these risks.*

Under the *Risk Management Policy* risk identification includes identifying the types of risk, its factors and significance. For the purpose of this identification, KDPW_CCP assumes that credit risk (including credit counterparty risk) is defined as a risk of a failure of KDPW_CCP's counterparty to meet its obligations towards KDPW_CCP stemming from open transactions or contractual agreements. Therefore, default of clearing member is identified as the main source of credit risk. Also as a derivative of credit risk, concentration risk is also identified in relation to clearing member's positions as well as exposures arising from KDPW_CCP's investment activity. In order to perform risk identification, KDPW_CCP uses certain criteria specified in the *Risk Management Policy.*

Credit risk is mitigated by KDPW_CCP in particular by:

- introducing clearing guarantee system,
- application of procedure in case of default of a clearing member,
- determining appropriate limits and their monitoring,
- defining types of accepted collateral and setting haircut rates,
- conducting stress testing, backtesting, reverse stress testing and sensitivity analysis,
- application of conservative investment policy,
- review of models and procedures.

KDPW_CCP's clearing guarantee system consists of following layers:

- financial and precautionary requirements for members - KDPW_CCP's members must comply with financial requirements (including a required level of equity) and precautionary requirements, regularly provide KDPW_CCP with financial information defined in the rules, and calculate indicators under the precautionary standards on a daily basis,
- margins - they cover the risk of clearing transactions of the member who is responsible for their clearing. Margins are posted individually by clearing members,
- funds (clearing fund/guarantee funds) - funds' assets are maintained in order to secure against the risk arising from default of the largest KDPW_CCP clearing member, or the second and third largest clearing members, if the total level of their risk exposure is higher. Assets paid into the funds by clearing members are conjointly owned by those members. The funds are used to cover losses arising from the closing of a defaulting member's positions under extreme market conditions,

- own capital of KDPW_CCP - KDPW_CCP's own capital is maintained in order to cover the insolvency of the two largest exposed clearing members in extreme market conditions. The dedicated portion of own capital (dedicated resources) may be used after the contribution of defaulting member to the fund has been utilised,
- remaining resources - having used all the resources within the system, including own capital assets up to the level of 110% of the minimum required value, KDPW_CCP may call on members to make additional contributions to the funds up to an amount not exceeding 50% of the value of their previous contribution.

Detailed information concerning KDPW_CCP's clearing guarantee fund are available via links below:

Description of the transaction clearing guarantee system – organised trading

Description of the transaction clearing guarantee system – OTC trading

KDPW_CCP has also applied the procedure in case of default of its clearing member. The procedure in this regard *determines inter alia* the resources used to cover the losses in the event of a member default and the order of their application.

The key aspects of this procedure are described and publicly available on KDPW_CCP's website via this link: Key aspects of procedure in case of default of clearing member

KDPW_CCP introduced following limits in order to properly manage credit risk:

- Transaction limit – this limit is set in organised trading and defines maximum exposure, in terms of required initial margin and variation margin value, a member can take, given the collateral posted and revalued by the most recent prices. Collateral limit applicable in OTC trading is an equivalent of transaction limit.
- Engagement limit – this limit is intended to limit exposure in terms of a number of outstanding positions in derivatives settled by physical delivery.
- Concentration limit – this limit defines maximum exposure value / engagement value.

KDPW_CCP accepts only collateral deposited in cash and highly liquid financial instruments of low credit risk. To counteract excessive concentration of collateral, KDPW_CCP maintains collateral concentration limits of different types. More detailed information on collateral is described in *Principle 5: Collateral).*

Testing is described in detail in key considerations 6 and 7.

The investment policy sets the rules that need to be obeyed while investing assets posted by clearing members as collateral and own financial resources of KDPW_CCP. This includes approved counterparties list, types of financial instruments allowed for investments, and investment limits.

As mentioned previously, the review of models and procedures is conducted at least on an annual basis or each time in case of ranging extension by new market, new type of instruments, application of new methodologies and models and introducing material changes in already applicable methodologies and models.

Key consideration 4: *A CCP should cover its current and potential future exposures to each participant fully with a high degree of confidence using margin and other prefunded financial resources (see Principle 5*: Collateral *on collateral and Principle 6*: Margin *on margin). In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. All other CCPs should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would potentially cause the largest aggregate credit exposure for the CCP in extreme but plausible market conditions. In all cases, a CCP should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount of total financial resources it maintains.*

KDPW_CCP uses financial resources gathered within clearing guarantee system which are variation margin, initial margin, default fund and dedicated own resources in order to cover its current and future exposures to its members. The composition of KDPW_CCP's clearing guarantee system and the sequence of use of each layer of the system is described in key consideration 2.

More information on variation and initial margin is included in *Principle 6*: Margin *(Margin).*

KDPW_CCP maintains following pre-funded default funds: Clearing Guarantee Fund for organised and Guarantee Fund for OTC trading, WSE BondSpot ATS Guarantee Fund and On-demand Lending Guarantee Fund, in order to to cover the losses resulting from a default of the clearing member to which KDPW_CCP has the largest exposure or the second and third largest clearing members if the sum of their exposures is larger, under extreme but plausible market conditions. KDPW_CCP determines the minimum level of members' contributions to individual default fund and reviews the methodology for calculating the value of funds at least once a year. Default fund contributions of individual clearing members are determined in proportion to their average exposure value, taking into account the minimum contribution at the level of the member specified in the rules of the relevant default fund. Required default fund is re-sized on a daily basis. Contributions to the fund are risk-based, proportional and updated daily. The methodology for calculation of default funds and default fund contributions, including assumptions, parameters and stress scenarios are subject to the regular review and update that is performed at least annually. In addition, the review is conducted in case of covering a new type of financial instruments or changes in regulations with the guarantee. In addition, on the basis of stress tests a decision may be made about the need to verify and/or to change the methodology of calculation of the clearing/guarantee fund. Information regarding parameters used for calculating default fund contributions can be found via this link: Funds, dedicated resources and allocation

The rules regarding default funds can be obtained via links below:

Rules of the Clearing Guarantee Fund – organised trading

Rules of the WSE BondSpot ATS Guarantee Fund

Rules of the OTC Guarantee Fund

As described in key consideration 2 KDPW_CCP maintains dedicated portion of own capital (so called *skin-in-the-game*). Under EMIR regulation the level of dedicated resources should at least equal to 25% of the minimum capital including retained earnings and reserves, held in accordance with Article 16 of Regulation (EU) No 648/2012 and Commission Delegated Regulation (EU) No 152/2013 (1). This layer of clearing guarantee system is used only to cover losses resulting from the default of the clearing member before the use of default fund contributions of non-defaulting clearing members. KDPW_CCP determines the value of its dedicates resources on the basis of the required minimum capital and updates it at least once a year. Then the dedicated resources are allocated to funds in proportion to the size of a fund in relation to the total fund value. The dedicated resources allocated to funds are updated at each time that the fund value is updated. Information on the allocation of the dedicated resources is published on the website of KDPW_CCP each time following an update of a fund value and the value of the dedicated own resources. This information is included in the table that is accessible via this link: Funds, dedicated resources and allocation

The calculation procedure described above is obtainable via this link: Rules for calculating KDPW_CCP's dedicated resources

Under EMIR regulation KDPW_CCP maintains permanent and available initial capital that, including retained earnings and reserves, is proportionate to the risk stemming from its activities. KDPW_CCP calculates the aggregate capital requirements under RTS 152/2013. According to this regulation, KDPW_CCP calculates capital requirements for:

- winding down or restructuring its activities,
- operational and legal risk,
- credit risk,
- counterparty credit risk,
- market risk,
- business risk.

According to article 4 of RTS 152/2013, KDPW calculates capital requirements for credit risk and counterparty credit risk as the sum of 8% of its risk-weighted exposure amounts for credit and counterparty credit risk. To calculate the risk-weighted exposure amounts for credit risk, KDPW_CCP applies the Standardised Approach defined in Title II, Chapter 2 of Regulation (EU) No 575/2013.

To calculate the risk-weighted exposure amounts for counterparty credit risk, KDPW_CCP applies the Financial Collateral Comprehensive Method with volatility adjustments as defined in Articles 223-224 of Regulation (EU) No 575/2013.

Exposures to institutions (banks) are assigned risk weights based on external credit ratings. KDPW_CCP uses credit ratings issued by the following credit rating institutions:

- Fitch Ratings,
- Standard and Poor's Ratings Services,
- Moody's Investors Service.

Information regarding calculation of capital requirements for other risks covered by PFMIs is included in *Principle 15*: General business risk *(General business risk)* and *Principle 17:* Operational risk*(Operational risk).* Detailed description of KDPW_CCP capital requirements are obtainable via this link: KDPW_CCP capital requirements

In addition, KDPW_CCP has introduced financial and precautionary requirements for its members that serve for managing current and future exposures. For further information please see the *Principle 18: Access and participation requirements).*

Key consideration 5: *A CCP should determine the amount and regularly test the sufficiency of its total financial resources available in the event of a default or multiple defaults in extreme but plausible market conditions through rigorous stress testing. A CCP should have clear procedures to report the results of its stress tests to appropriate decision makers at the CCP and to use these results to evaluate the adequacy of and adjust its total financial resources. Stress tests should be performed daily using standard and predetermined parameters and assumptions. On at least a monthly basis, a CCP should perform a comprehensive and thorough analysis of stress testing scenarios, models, and underlying parameters and assumptions used to ensure they are appropriate for determining the CCP's required level of default protection in light of current and evolving market conditions. A CCP should perform this analysis of stress testing more frequently when the products cleared or markets served display high volatility, become less liquid, or when the size or concentration of positions held by a CCP's participants increases significantly. A full validation of a CCP's risk-management model should be performed at least annually.*

KDPW_CCP testing programs include backtesting, haircuts testing, stress-testing, reverse stress-testing and sensitivity testing.

Stress testing is carried out by the Risk Management Team to ensure that the resources of the clearing guarantee fund are sufficient to cover losses arising from the default of the clearing member to which KDPW_CCP has the largest exposures or of the second and third largest clearing members, if the sum of their exposures is larger. Calculations are based on a defined set of stress-test scenarios which include historical and hypothetical extreme but plausible market conditions. When conducting stress tests, KDPW_CCP identifies and takes into account material factors that are characteristic for types of financial instruments it clears.

Based on defined stress-test scenarios, potential loss arising from insufficient coverage of potential exposures with deposited margins is calculated for each clearing member. Next, for each scenario, the largest and the sum of the second and third largest potential loss are calculated and then compared with the value of the clearing fund or the relevant guarantee fund. The results indicate the extent to which the clearing fund or the relevant guarantee fund will be consumed as a result of default of the clearing member(s) to which KDPW_CCP has the largest exposures under extreme but plausible market conditions.

In addition, all resources of the clearing guarantee system are stress-tested to ensure that they are sufficient to cover the loss due to default of the clearing members to which KDPW_CCP has the two largest exposures.

Stress testing is performed automatically on every business day. As a result of the analysis, KDPW_CCP may take measures to mitigate identified risks, including an increase of margin requirements or contributions to the clearing fund or the relevant guarantee fund.

KDPW_CCP publishes monthly test results on its website and communicates the results to the clearing members. In addition, on request KDPW_CCP provides clearing members with detailed test results for their portfolios.

Information regarding stress testing of Clearing Guarantee Fund resources can be found via this link: Stress Testing of Clearing Guarantee System Resources

Testing programs is subject to cyclical (at least once a year) verification and updating performed by the Risk Management Team. In addition, verification should be carried out in special situations, such as coverage of new types of instruments with the guarantee, changes in the risk management model, changes in regulations, changes in the market that could affect the assumptions underlying the determination of extreme scenarios.

The testing program, the models and methodologies used, as well as their changes are subject to approval and/or validation by the relevant entities/authorities in accordance with the applicable rules in this regard.

In addition, in case of OTC testing program parameterisation of stress test scenarios is updated periodically, at least once a month. Verification is carried out more often in the case of increased volatility, reduced liquidity or increased concentration of positions. In particular, the set of scenarios should be updated in the event of sudden changes in the market, introduction of new instruments to trading, changes in the parameterisation of the valuation model, changes in the algorithm for calculating margins or contributions to the fund, regulatory changes, identification of additional risk factors.

Key consideration 6: *In conducting stress testing, a CCP should consider the effect of a wide range of relevant stress scenarios in terms of both defaulters' positions and possible price changes in liquidation periods. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions.*

As described in key consideration 5, KDPW_CCP uses various parameters for stress testing in order to cover extreme but plausible market conditions.

Stress tests for organised trading are carried out for all portfolios for defined stress scenarios in relation to historical and hypothetical extreme but plausible market conditions. On the basis of extreme market conditions, extreme risk parameters are determined, which are then used to determine the potential loss (measured by the value of the initial margin calculated with the assumption of extreme risk parameters).

Stress tests in OTC trading are carried out on the basis of hypothetical scenarios, determined on the basis of historical data, and the most extreme historical scenarios.

Key consideration 7: *An FMI should establish explicit rules and procedures that address fully any credit losses it may face as a result of any individual or combined default among its participants with respect to any of their obligations to the FMI. These rules and procedures should address how potentially uncovered credit losses would be allocated, including the repayment of any funds an FMI may borrow from liquidity providers. These rules and procedures should also indicate the FMI's process to replenish any financial resources that the FMI may employ during a stress event, so that the FMI can continue to operate in a safe and sound manner.*

As mentioned in key consideration 2 KDPW_CCP has established a transparent multi-layered clearing guarantee system that consists of:

- financial and precautionary requirements for members,
- margins,
- funds (clearing fund/guarantee funds),
- own capital of KDPW_CCP,
- remaining resources.

In addition to that KDPW_CCP has implemented a comprehensive procedure in case of default of its clearing member – the *Procedure in the event of default of a KDPW_CCP clearing member.* The procedure in this regard determines *inter alia* the resources used to cover the losses in the event of a member default and the order of their application.

The procedure foresees certain measures in response to events resulting in default or threat of a default of a KDPW_CCP clearing member, which qualify as breach under the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading). The procedure enlists a catalogue of these events which, however, is not closed.

In order to coordinate measures taken by internal organisational units of KDPW_CCP and KDPW the Default Committee is held. The Committee coordinates measures which are necessary to ensure the payment of debits resulting from the clearing of transactions which requires the use of resources of the clearing guarantee system controlled by KDPW_CCP and to prevent further default resulting from failure of the defaulting KDPW_CCP clearing member to pay debits.

The *Procedure in the event of default of a KDPW_CCP clearing member* includes an in-depth analysis of the events within the Committee, certain measures in case of reasonable doubt as to the solvency of a KDPW_CCP clearing member, even if it does not represent default at this time, certain measures in the event that default of a KDPW_CCP clearing member is identified. In case of a default, defaulting entity's participation is cancelled. In addition, its participation in a given clearing system is suspended. It is also specified whether the suspension of participation should concern all operations of the KDPW_CCP clearing member under the participation agreement or a certain scope thereof, as well as the period of suspension of such member.

The concerned KDPW_CCP clearing member, the Polish Financial Supervision Authority and the operators of the guaranteed markets on which the clearing member or entities represented by it in clearing of transactions operate are informed about the adoption of a resolution cancelling the participation of a clearing member or suspending its operation in a given clearing system.

Furthermore, KDPW_CCP sends a message blocking the defaulting KDPW_CCP clearing member or entities which conclude transactions for such member on all guaranteed markets.

After the adoption of resolution of the KDPW_CCP Management Board to liquidate the positions of a defaulting clearing member, default is handled in the following steps:

a) The KDPW_CCP clearing member and entities cleared by such member are blocked on all guaranteed markets.
b) The positions and collateral of NCM clients of the defaulting member are transferred to another clearing member.
c) The defaulting member's positions are closed out.
d) The gains and losses on the closing of the defaulting member's positions are paid. Losses, if any, are paid from the clearing guarantee system.

In its rulebooks KDPW_CCP foresees certain measures aimed at replenishment of financial resources exhausted in a stress event. According to the *Rules of the Clearing Guarantee Fund* (organised trading) following the completion of measures defined in the *Rules of Transaction Clearing* involving any disbursement of assets of the clearing fund, KDPW_CCP shall update the contributions to the basic resource of the clearing fund and determine the amount of replacement contributions. Members shall be obliged immediately to replenish the clearing guarantee fund according to the update. Under the *Rules of the OTC Guarantee Fund (OTC trading)* following the completion of measures defined in the Rules involving any disbursement of assets of the OTC clearing fund, KDPW_CCP shall update the contributions to the basic resource of the OTC clearing fund and determine the amount of replacement contributions. Members shall be obliged immediately to replenish the OTC clearing fund according to the update. Both rulebooks further define conditions for replenishment of default fund resources.

KDPW_CCP also has at its disposal means and arrangements for replenishment its dedicated resources. In particular if assets constituting dedicated resources are used according to the provisions of the rules, KDPW_CCP shall immediately take actions necessary to replenish the dedicated resources up to at least 25% of the KDPW_CCP capital requirement within one month of the day when such resources are used. If as a result of the need for KDPW_CCP to use its own capital, its amount falls below 110% of the value of the capital requirement calculated in accordance with EMIR, KDPW_CCP uses measures enabling to replenish its capital.

Should the losses stemming from the default of clearing member of multiple defaults of clearing members exceed financial resources gathered in clearing guarantee system, under certain conditions described in its *Recovery Plan*, KDPW_CCP may launch recovery phase.

The key aspects of the *Procedure in the event of default of a KDPW_CCP clearing member* are described and publicly available on KDPW_CCP's website via this link: Key aspects of procedure in case of default of clearing member

Assessment of principle:
Observed

Principle 5: Collateral

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity, and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Under applicable provisions KDPW_CCP only accepts collateral that is deposited in good quality assets with low credit and market risk and which are highly liquid. KDPW_CCP in its rulebooks (in the *Rules of Transaction Clearing* for organised trading and for OTC trading) introduced rules regulating provision of collateral. These rules are compliant with the relevant EU regulations.

Key consideration 1: *An FMI should generally limit the assets it (routinely) accepts as collateral to those with low credit, liquidity, and market risks.*

For determining which assets can be accepted as collateral, KDPW_CCP applies relevant EU provisions, namely art. 46 of EMIR and RTS 153/2013.

Therefore, KDPW_CCP accepts as collateral:

- cash in:
  - PLN,
  - EUR,

- the following securities:
  - Treasury bonds and Treasury bills traded on a regulated market in the Republic of Poland,
  - debt securities denominated in EUR, issued by European Union Member States other than the Republic of Poland*,
  - shares of companies participating in the WIG20 index (most liquid stocks of 20 companies listed on the Warsaw Stock Exchange)**,

  provided that they have been indicated in the list of securities in the form defined by the KDPW_CCP Management Board.

Assets acceptable as collateral depending on collateral type and applied limits are presented in the table below:

Type of collateral	Limit: securities and currencies other than PLN (max.)	Limit: cash in PLN (min.)	Eligible securities and currencies other than PLN
Initial Deposit	100%	0%	1) EUR currency 2) Treasury bonds and bills issued by the State Treasury of the Republic of Poland 3) Debt securities denominated in EUR, issued by European Union Member States other than the Republic of Poland* 4) WIG20 shares**
Initial Margin	60%	40%	1) EUR currency 2) Treasury bonds and bills issued by the State Treasury of the Republic of Poland 3) Debt securities denominated in EUR, issued by European Union Member States other than the Republic of Poland* 4) WIG20 shares**
Clearing Fund, OTC Guarantee Fund, ATS Guarantee Fund	90%	10%	1) EUR currency 2) Treasury bonds and bills issued by the State Treasury of the Republic of Poland 3) Debt securities denominated in EUR, issued by European Union Member States other than the Republic of Poland*

*) *The service will be introduced at a later date. Consequently, the provisions of the Detailed Rules of Transaction Clearing (organised trading) regarding collateral posted in such securities will come into force within two weeks of the date when KDPW_CCP notifies all participants in the manner referred to in the Rules of transaction clearing (organised trading) that it starts to accept deposits/margins and contributions to the funds in such securities.*

**) *As of 3rd July 2017, shares of companies participating in the WIG20 index are no longer be accepted as margins until further notice. KDPW_CCP no longer includes such shares in the list of securities referred to in § 47a subpara. 4 of the Rules of Transaction Clearing (Organised Trading) and § 80 subpara. 4 of the Rules of Transaction Clearing (Non-organised Trading). KDPW_CCP will re-enter shares of companies participating in the WIG20 index into the list of securities if any clearing member declares interest in posting such collateral, subject to the requirements set out in the aforementioned Rules.*

KDPW_CCP updates and publishes daily on its website a detailed list of acceptable collateral according to collateral type together with applicable haircuts.

In order to monitor the collateral that is posted so that the collateral meets the applicable acceptance criteria, KDPW_CCP has adopted and maintains procedures of monitoring of risks associated with collateral accepted and held. These include valuation and haircut setting procedures, concentration monitoring and the review process.

KDPW_CCP manages concentration risk in relation to assets posted as collateral. This includes setting the following types of concentration limits:

- concentration limit for an individual issuer,
- concentration limit for a type of issuer,
- concentration limit for a type of asset,
- concentration limit for a type of collateral.

To enable collateral posting, KDPW_CCP maintains its account in KDPW (Polish CSD).

KDPW_CCP recognizes wrong-way risk of two types. First is connected with the situation where a member tries to post collateral in its own or its affiliates securities. Second is where a clearing member that belongs to the banking sector has its stocks cleared by KDPW_CCP. To mitigate these risks KDPW_CCP does not allow posting collateral in a clearing member's own securities or its affiliates and assigns additional haircut charge for all securities that belong to the banking sector. In setting haircuts KDPW_CCP also takes into account credit and liquidity risk.

More information regarding collateral can be obtained via following links:

The list of acceptable collateral

Processing of collateral in EUR

Key consideration 2: *An FMI should establish prudent valuation practices and develop haircuts that are regularly tested and take into account stressed market conditions.*

KDPW_CCP values its collateral on a daily basis according to its *Rules of Transaction Clearing*, taking into account market priorities and reference prices. KDPW_CCP has also a well documented policy for valuing all financial instruments that also takes into consideration situations where a current market price is not available

While determining haircuts KDPW_CCP includes the following risk components:

- credit risk,
- price (yield) change risk,
- liquidity risk,
- FX risk,
- wrong way risk.

In case of credit risk KDPW_CCP performs internal assessment of the credit risk of issuers of securities posted by clearing members as collateral. Based on the assigned credit quality level of the issuer, the value of the credit risk haircut ratio is determined in accordance with the KDPW_CCP's internal rules.

As for price (yield) change risk KDPW_CCP risk procedures require that when determining haircuts, the observation window for price market data of 30 years or maximum available history, when such data are not available, is used to determine market risk.

As for liquidity risk, the liquidity risk haircut is determined based on a bid-ask spread analysis.

In order to mitigate FX risk additional haircut rate is applied. For its determination observation window from from 2nd January 1999 is used.

To mitigate wrong way risk, KDPW_CCP does not accept collateral formed of securities issued by the clearing member or a company of the member's group of companies. Furthermore, the banking sector is expected to be exposed to wrong way risk. An additional haircut of 5% is applied to all stocks from banking sector.

Under provisions of the *Rules of Transaction Clearing* (both for organised and OTC trading) the value of the haircut shall be updated daily by KDPW_CCP, on the days when KDPW_CCP performs the clearing of transactions. Changes to the value of the haircut performed as part of the update shall also have a bearing on securities posted as margins prior to the update. KDPW_CCP may update on an on-going basis during the exchange trading session the value of securities and cash in EUR which constitute a margin and the haircut rate. Haircuts for specific securities may be set at 100% level.
In accordance with the adopted methodology, KDPW_CCP determines haircut rates based on extreme but plausible market conditions, thus ensuring that both in normal and extreme but probable market conditions collateral will be liquidated at a value not lower than the determined haircut rates, what is consistent with the requirement set out in Art. 55 (2) of RTS 153/2013.

KDPW_CCP verifies haircut rates by performing daily back tests of the haircut rates. These tests are performed for each security and cash in EUR accepted by KDPW_CCP as collateral and consist in comparing the determined haircut rate with the percentage change in the price of securities/exchange rate in the selected liquidation period of the position.

The procedure for determining haircuts is reviewed at least annually by the Risk Management Team.

Key consideration 3: *In order to reduce the need for procyclical adjustments, an FMI should establish stable and conservative haircuts that are calibrated to include periods of stressed market conditions, to the extent practicable and prudent.*

For determining haircut rates, KDPW_CCP applies different observation windows in order to reflect current and past developments and reduce the need for procyclical adjustments.

Key consideration 4: *An FMI should avoid concentrated holdings of certain assets where this would significantly impair the ability to liquidate such assets quickly without significant adverse price effects.*

As to avoid concentrated holdings of certain assets KDPW_CCP applies limits according to which certain proportion of margin requirement and default fund contribution must be covered in cash.

In addition, KDPW_CCP defines in its rulebooks (the *Rules of Transaction Clearing* for organised trading and OTC trading) following concentration limits for all securities credited towards margins and contributions to the clearing guarantee fund (organised trading) and to the OTC guarantee fund (OTC trading), and taking into account collateral in other clearing systems:

- concentration limit for an individual issuer,
- concentration limit for a type of issuer,
- concentration limit for a type of asset,
- concentration limit for a type of collateral.

For determining these limits, KDPW_CCP takes into consideration:

- the issuance of financial instruments by issuers belonging to the same category in terms of economic sector, type of activity and geographical region, in accordance with the procedure, and
- the level of credit risk of issuers of securities,
- the liquidity and volatility of the financial instruments concerned.

Such limits are defined separately for, respectively, a given issuer, a given type of issuer, a given type of asset and a given type of collateral.

If securities posted by a member holding the status of clearing member in respect of margins or contributions to the clearing guarantee fund or the relevant guarantee fund should cause a breach of a concentration limit such securities shall be credited towards such collateral up to the limit.

KDPW_CCP defines, in a resolution, according to the applicable legislation and safety of trading, in particular ensuring adequate diversification of collateral, the values of the following concentration limits: concentration limit for a type of asset, concentration limit for an individual issuer and concentration limit for a type of issuer. The value of the concentration limit for a type of collateral is to be defined only for designated securities that are specified in the *Rules of Transaction Clearing.*

KDPW_CCP also calculates, according to the applicable legislation and safety of trading, the following concentration levels, which are compared with the relevant concentration limits:

- concentration level for an individual issuer – for the concentration limit for an individual issuer,
- concentration level for a type of issuer – for the concentration limit for a type of issuer,
- concentration level for a type of asset – for the concentration limit for a type of asset,
- concentration level for a type of collateral – for the concentration limit for a type of collateral.

When calculating the concentration levels KDPW_CCP takes into account the value of its total exposure according to the applicable legislation, including assets available to KDPW_CCP, deposited in bank accounts maintained by third parties, invested in financial instruments and forward financial transactions, deposited as on-demand or term cash deposits, or otherwise invested, as well as the total amount of credit lines.

For further information, please consult:

- § 50b of *Rules of Transaction Clearing (organised trading)*
- § 86a of *Rules of Transaction Clearing* (OTC trading)

KDPW_CCP reviews the procedure on determining and management of concentration limits at least once a year, and on an *ad hoc* basis in the event of significant changes affecting KDPW_CCP's exposure to risk.

In addition, the adequacy of the applied concentration limits is regularly monitored.

In special situations affecting KDPW_CCP's exposure to risk, decisions may be made to change the method of managing concentration limits or to change the level of these limits. All decisions are made by way of a resolution of the Management Board of KDPW_CCP.

Key consideration 5: *An FMI that accepts cross-border collateral should mitigate the risks associated with its use and ensure that the collateral can be used in a timely manner.*

At the time of assessment KDPW_CCP does not offer this kind of service.

Key consideration 6: *An FMI should use a collateral management system that is well-designed and operationally flexible.*

KDPW_CCP has adopted a well-designed and operationally flexible collateral management system.

Pursuant to the provisions of the *Rules of Transaction Clearing* each member holding the status of clearing member, that intends to post assets as margins, a contribution to the clearing guarantee fund or the relevant guarantee fund on a given day, shall be entitled to request KDPW_CCP for information whether or not such assets will be credited towards such margins, contributions to the clearing guarantee fund or the relevant guarantee fund on that day but no later than within 30 minutes from the delivery of such information to the member.

A graphical representation of this system broken down into organised and OTC trading is available via following link:

Collateral in securities and cash – organised and OTC trading

More information on KDPW_CCP's collateral management is accessible via links below:

Posting and releasing collateral

Collateral table

Table of fees – collateral management

Assessment of principle:
Observed

Principle 6: Margin

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

KDPW_CCP risk management process is well founded in its rules and detailed rules of transaction clearing, risk management policy and risk procedures that reflect provisions of EMIR regulation and RTS 153/2013. The framework depicts model used for margining products on all cleared markets as well as the process of collecting margin during end-of-day and intraday process. Margin levels are backtested on a daily basis to ensure that desired coverage level is met. The margin together with remaining KDPW_CCP guarantee system resources are stress-tested daily to check if they adhere to the 'cover 2' standard.

Key consideration 1: *A CCP should have a margin system that establishes margin levels commensurate with the risks and particular attributes of each product, portfolio, and market it serves.*

KDPW_CCP's margin policy is well documented in its internal rules such as rules and detailed rules of transaction clearing, risk management policy and procedures such as procedure for determining margins, separately for organised and OTC trading.

KDPW_CCP calculates margins against current members' positions in close to real time and at the end of day when it utilizes closing prices. Margins may take the form of initial margin which is aimed to secure future price changes and variation margin which is intended to cover the risk connected with marking-to-market process. Statistical tests are applied to margin models with confidence level adopted for the relevant market segment. KDPW_CCP captures the key risk relevant for products cleared, e.g.: interest rate risk, price risk, currency risk, volatility risk and puts it as risk factors in its models. KDPW_CCP margin models analyse different possible patterns of behaviour of risk factors in risk scenarios that are the base for margin calculation as well as the financial products detailed characteristics.

Margin requirement coverage determines clearing member's ability to clear its trades. It is measured on an ongoing basis. A situation when a member fails to meet its margin requirements is an event of a default.

KDPW_CCP applies two different methods of initial margin calculations for cleared markets.

In organised trading, where it clears trades from WSE and BondSpot regulated markets, WSE and BondSpot ATS and On-demand Lending platform, KDPW_CCP applies SPAN® methodology as a base for initial margin calculations with add-on margins to cover negative mark-to-market (cash instruments only), wrong way risk and liquidity and concentration Risk.

SPAN® is a portfolio based, parametric method of margining of exchange traded derivatives and cash products. KDPW_CCP applies SPAN® normal approach for margining futures contracts and options while for cash products SPAN®. It applies liquidation risk approach. Under SPAN® normal approach, the risk is evaluated in several steps. In the first step, the risk of the portfolio within the same combined asset class is evaluated across 16 scenarios of price and volatility changes. Option price decay effect due to passage of time is also considered. At this point of calculations precise correlations between

instruments are assumed. In the next steps recognized correlation effect is analysed which results in calculation of intra class charges and inter class credits. On top of that net option value is included.

Under SPAN® liquidation risk approach used for margining of cash products in organised trading all instruments in analysed portfolio are assigned to liquidity classes (e.g., stocks and their equivalents) or duration classes (debt instruments). In the next steps, general market risk and specific market risk are calculated. On top of that, intra spread charge (in case of debt products) and inter-spread credit are included. Currency risk is also included in risk parameters where applicable. In case of cash products price changes in the settlement cycle are not settled between members but instead they become a part of initial margin requirement if negative.

For initial margin calculation in OTC trading, KDPW_CCP uses the Expected Shortfall method (ES). ES consists of evaluating derivatives portfolio under historical scenarios of market interest and FX rates movements, calculating P&Ls associated with these movements, calculating quantile level according to assumed confidence level, and then calculating mean P&L from values below a given quantile. The primary advantage of Expected Shortfall over the previously used historical simulation VaR method is that Expected Shortfall is more sensitive to extreme events as it deals with changes in the tail of the distribution.

Under applicable provision KDPW_CCP publicly discloses information regarding margins that are thus available for clearing members for use in their individual risk management efforts. In particular, for organised market KDPW_CCP publishes margin calculator that functions as margin simulation tool enabling clearing members to simulate the amount of initial margin by choosing appropriate parameters. As for OTC trading KDPW_CCP publishes information regarding calculation of initial margin with the use of Expected Shortfall. The information is accessible via this links:

- Organised trading:
  1. Initial margin calculations (KDPW_CCP Detailed Rules of Transaction Clearing - organised trading Appendix 1-5)
  2. Transaction limits
  3. Margin calculator
- OTC:
  1. Initial margin calculation (Detailed Rules of the OTC Clearing System – Appendix 6)
  2. Position concentration limits

According to the *Liquidity Plan* margins are collected in cash or non-cash assets. The *Plan* presumes certain limits according to which certain proportion of margin requirement must be covered in cash.

Margins that are calculated in end-of-day process based on closing prices are settled next day in the morning. Margins that are calculated intraday based on current positions and last updated prices are required each time the deemed collateral value posted by a clearing member drops below its margin requirements.

Under the *Rules of Transaction Clearing* (for organised trading and OTC trading) a payment failure that would cause a shortage of collateral posted to KDPW_CCP to cover required margin to the member's position is considered as event of default for which default procedures are launched.

Key consideration 2: *A CCP should have a reliable source of timely price data for its margin system. A CCP should also have procedures and sound valuation models for addressing circumstances in which pricing data are not readily available or reliable.*

KDPW_CCP has established a comprehensive procedure for obtaining and verification of market data which is also used for its margin models.

For that purpose KDPW_CCP uses prices provided by public venues or exchanges for exchange-traded products. In case of OTC trading KDPW_CCP uses OTC quotes obtained from financial data vendors. KDPW_CCP also obtains data from National Bank of Poland. The procedure assumes verification of obtained data.

The procedure foresees certain measures in case of lack or incorrectness of OTC data from available sources for the purposes of performing the necessary calculations in the end-of-day process. The procedure also foresees certain measures in case of anomalies in data obtained from public venues, exchanges and financial data vendors.

In case of margin calculations for organised trading, in a situation where lack of historical data prevents a statistical analysis, the parameters for a given class of financial instruments are determined in a conservative manner, using the analysis carried out for a class of instruments with similar characteristics when assessing the risk.

Key consideration 3: *A CCP should adopt initial margin models and parameters that are risk-based and generate margin requirements sufficient to cover its potential future exposure to participants in the interval between the last margin collection and the close out of positions following a participant default. Initial margin should meet an established single-tailed confidence level of at least 99 percent with respect to the estimated distribution of future exposure. For a CCP that calculates margin at the portfolio level, this requirement applies to each portfolio's distribution of future exposure. For a CCP that calculates margin at more-granular levels, such as at the subportfolio level or by product, the requirement must be met for the corresponding distributions of future exposure. The model should (a) use a conservative estimate of the time horizons for the effective hedging or close out of the particular types of products cleared by the CCP (including in stressed market conditions), (b) have an appropriate method for measuring credit exposure that accounts for relevant product risk factors and portfolio effects across products, and (c) to the extent practicable and prudent, limit the need for destabilising, procyclical changes.*

Initial margin requirements for all clearing services are calculated in PLN. Detailed descriptions of both models are included in key consideration 1.

List of models and their parametrisation is shown in the following table.

	Trading type	
	OTC trading	Organised trading
Margin model	Expected Shortfall	SPAN®
Confidence level	99.7%	99%
Look back period	10 years	10 years

Holding period	5 days	2 days
Volatility decaying	all historical observations have equal weight	all historical observations have equal weight
Perturbation method	- interest rates - additive method with scaling of the liquidation period - FX rates - multiplicative method with scaling of the liquidation period	relative scaled by square root of liquidation period
Compensation	Yes, for a given product. The products are as follows: - PLN interest rate derivatives - EUR interest rate derivatives - PLN repos and securities sale	Limited under article 27 (4) of RTS 153/2013 in the calculation of specific risk parameters and the inter-class credit for liquidity classes and the inter-class spread credit for index derivatives.

In case of margin calculation for organised trading the impact of the following risk factors is taken into account when parameterising the model: price volatility, volatility of volatility, liquidity of instruments, position concentration, price availability, FX risk, issuer country risk, valution model risk.

In case of margin calculation for OTC trading KDPW_CCP takes into account following factors when parameterizing the model: complexity of financial instruments to be cleared, price volatility and liquidity of instruments, market data availability, interest rate risk, FX risk, correlation risk, concentration and possibility of liquidation of position, valuation model risk.

The methodologies of estimation of the key parameters and inputs of the margin models (for organised and OTC trading) are specified in procedures for determining margins, separately for organised and OTC trading.

For organised trading the parameters of the margin calculation model are determined using statistical methods based on historical data from the last 10 years. For instruments with a short trading history, the maximum number of historical observations is used, and in the case when it is a period shorter than 1 year or when the series does not contain extreme observations, an increased confidence level is applied.

In case of OTC trading, according to art. 25 of RTS 153/2013 margins should be calculated based on data covering the period of at least the last 12 months. However, such a short period would result in a high volatility of the designated deposits. With a confidence level of 99.5%, the margin would be determined on the basis of two extreme observations. In addition, if the last year is characterised by relatively low volatility compared to previous years, deposits based on data covering the last 12 months would be underestimated. Due to the above, as well as taking into account the provisions of art. 28 of RTS 153/2013 KDPW_CCP manages procyclicality effect by ensuring that its margin requirements are not lower than those that would be calculated using volatility estimated over a 10-year historical lookback period.

According to its default management procedure KDPW_CCP assumes that it would be able to close out positions of a defaulting member in the period that does not exceed assumed holding period parameters.

To mitigate adverse price effect in case of liquidation of relatively large positions KDPW_CCP monitors position and collateral concentration risk and undertakes appropriate actions if needed.

Wrong way risk (WWR) margin covers the risk that may materialise when exposure of a clearing member in its own securities is negatively correlated with the credit quality of that member. WWR additional margin is calculated in relation to the following positions of the clearing member:

- positions in own stocks and bonds of a given member or its affiliates,
- positions in equity futures contracts of a given member or its affiliates,
- positions in options on own shares of a given member or its affiliates.

Liquidity and Concentration Risk Margin (LCR) covers the risk of difficulties in liquidating members' positions within the assumed holding period. The LCR margin is calculated based on a liquidity indicator where the clearing member's position is compared with the average daily turnover in the class and a cost based on the bid-ask spread.

Key consideration 4: *A CCP should mark participant positions to market and collect variation margin at least daily to limit the build-up of current exposures. A CCP should have the authority and operational capacity to make intraday margin calls and payments, both scheduled and unscheduled, to participants.*

KDPW_CCP performs marking to market of its clearing members' positions on daily basis for relevant products cleared in organised trading and OTC trading.

In organised trading, all futures contracts have variation margin calculated according to the general formula:

$$(\text{current closing price} - \text{previous closing price}) \text{ x number of contracts x contract multiplier}$$

KDPW_CCP debits and credits relevant members. Variation margin is settled daily by the relevant payment system. Options that are cleared by KDPW_CCP are premium style, so they are not subject to marking to market process although initial margin required by option seller includes current net option value.

Cash instruments in the portfolio have negative mark to market collected by KDPW_CCP which is kept as a part of initial margin requirement until the settlement of positions. Positive mark to market value does not credit a member.

For OTC derivatives, marking to market is done by the following formula, separately for eligible currencies (currently for PLN and EUR):

$$(\text{current EOD net present value} - \text{previous EOD net present value})$$

The net present value is calculated by summing the discounted cash flows related to trades. Future cash flows are determined based on projection curves and then discounted based on discount factors

derived from discounting curve. The pricing curves are built with use of float leg and fixed leg bootstrapping processes.

KDPW_CCP has authority and operational capability to make intraday margin calls for initial deposits and initial margins, what is specified in the *Rules of Transaction Clearing* (for organised trading and for OTC trading) and the *Detailed Rules of Transaction Clearing* (for organised trading and OTC trading).

Key consideration 5: *In calculating margin requirements, a CCP may allow offsets or reductions in required margin across products that it clears or between products that it and another CCP clear, if the risk of one product is significantly and reliably correlated with the risk of the other product. Where two or more CCPs are authorised to offer cross-margining, they must have appropriate safeguards and harmonised overall risk-management systems.*

KDPW_CCP allows for risk offsets within and between certain classes of products. Each time, whenever offset is to be deemed, KDPW_CCP ensures that there is an economic rationale for the offset, the risk factors are significantly correlated, and offsets are resilient in stressed scenarios.

In SPAN® framework for organised trading risk offsets are controlled by spread charges (calendar offsets) and credits (inter class). Deemed risk offsets are capped at 80%. Risk offsets for trades cleared in OTC trading are executed by applying historical simulation scenarios for the same products.

In the historical simulation model, there is no assumption on correlations between instruments belonging to the same class. Historical simulation model using long lookback period ensures that it includes periods of extreme volatility and correlations breakdown which would be taken into account while estimating margin requirement thus limiting initial margin reductions due to risk offsets.

Key consideration 6: *A CCP should analyse and monitor its model performance and overall margin coverage by conducting rigorous daily backtesting and at least monthly, and more frequent where appropriate, sensitivity analysis. A CCP should regularly conduct an assessment of the theoretical and empirical properties of its margin model for all products it clears. In conducting sensitivity analysis of the model's coverage, a CCP should take into account a wide range of parameters and assumptions that reflect possible market conditions, including the most-volatile periods that have been experienced by the markets it serves and extreme changes in the correlations between prices.*

KDPW_CCP has adopted exhaustive testing program that includes:

- backtesting,
- stress-testing,
- sensitivity testing,
- reverse-stress-testing.

In case of organised trading backtesting is performed for each clearing member at the level of the clearing account (portfolio), separately for each fund (complex), broken down by cash market and derivatives market. Backtesting consists in comparing the hypothetical cost of closing the position in the assumed period of liquidation of the position with the margin designated for a given portfolio. In a situation where the potential loss is greater than the designated margin, there is an overrun. The calculations are performed every business day in the end-of-day (EOD) process. If the results of backtests suggest that margin coverage target in organised trading can not be met, KDPW_CCP

conducts analysis identifying reasons for the exceedances. As s part of the analysis of the results of the back tests carried out, periodic analysis (monthly analysis of aggregated results) and ongoing analysis (performed every working day) are performed. On the basis of results of such analysis KDPW_CCP may make changes to the methodology for margin calculations, in particular the risk parameters used. All proposed changes to the models and methodologies used are subject to approval and/or validation by the relevant entities/authorities in accordance with the applicable rules in this regard.

As for OTC trading backtesting is performed at the level of the collateral account (portfolio) and consists in comparing the change in the valuation of the portfolio in the period equal to the period of liquidation of the position with the margin calculated for this portfolio. If the change in the valuation of the portfolio (decrease in value) is greater than the calculated margin, there is an overrun. The calculations are performed for all portfolios every business day in the end-of-day (EOD) process. As part of the analysis of the results of the tests carried out, periodic analysis (monthly analysis of aggregated results for the preceding year) and ongoing analysis (performed every working day) are conducted. Ongoing analysis consists in monitoring and analysing test results from the last business day. In the case of excessedances, portfolios for which the margin turned out to be insufficient are analysed in order to determine the reasons for the excessedances and the dominant risk factors. In particular, an analysis is made of the volatility of market prices being the basis for the observed exceedances. On the basis of results of such analysis KDPW_CCP may make changes to the methodology for margin calculations, in particular the risk parameters used. All proposed changes to the models and methodologies used are subject to approval and/or validation by the relevant entities/authorities in accordance with the applicable rules in this regard.

Sensitivity analysis for organised trading is performed in order to assess the degree of coverage of exposures in various market conditions with determined margins, as well as to assess the impact of changes in significant assumptions and parameters of the model on the level of determined margins. As a part of the sensitivity analysis, the sensitivity of cleared portfolios to significant risk factors and correlations to which KDPW_CCP is exposed is examined, in particular the risk of changes in the price of financial instruments, interest rates, exchange rates; changes in price volatility of a given financial instrument; changes in the value of correlation coefficients of the rates of return of financial instruments. Sensitivity tests and analysis are carried out based on defined sets of scenarios (model parameters) for all portfolios, separately for: derivatives market; regulated cash market; the ATS market; securities lending. The calculations are performed every business day in the end-of-day (EOD) process. The results of the sensitivity tests carried out are subject to cyclical analysis at least once a month. In addition, the analysis is carried out more frequently in the event of increased market volatility, reduced liquidity, a significant increase in the size or concentration of positions. On the basis of results of such analysis KDPW_CCP may make changes to the methodology for margin calculations, in particular the risk parameters used. All proposed changes to the models and methodologies used are subject to approval and/or validation by the relevant entities/authorities in accordance with the applicable rules in this regard.

In case of OTC trading, as a part of the sensitivity analysis, the sensitivity of the cleared portfolios to significant risk factors, in particular changes in interest rates and exchange rates, is examined. The impact of different types of changes in the shape of interest rate curves on the valuation of portfolios is analysed. Sensitivity tests and analysis are carried out for all OTC market portfolios based on

dedicated sets of scenarios. The calculations are performed every business day in the end-of-day (EOD) process. The analysis of exceedances is aimed at identifying potential risk in the event of market conditions changing in accordance with a given scenario. On the basis of results of such analysis KDPW_CCP may make changes to the methodology for margin calculations, in particular the risk parameters used. All proposed changes to the models and methodologies used are subject to approval and/or validation by the relevant entities/authorities in accordance with the applicable rules in this regard.

Results of tests are presented to the Risk Committee monthly and disclosed publicly in compliance with EMIR.

The margin together with remaining KDPW_CCP guarantee system resources are stress-tested daily to check if they adhere to the 'cover 2' standard.

Key consideration 7: *A CCP should regularly review and validate its margin system.*

A thorough review of the methodology, assumptions and parameters is carried out at least once a year by the Risk Management Team.

Back tests and stress tests are carried out on a daily basis. The negative results of these tests may be the basis for introducing changes to the models.

In addition, in special situations, such as coverage of a new type of financial instruments, changes in regulations, rapid changes in the market or a risk management model mismatch revealed in the tests, only those elements of the model are analysed that may be related to the demonstrated mismatch or incompatibility with new instruments. Conclusions from the model review are submitted to the Risk Committee for opinion. Agreed adjustments to the methodology are submitted to the KDPW_CCP Management Board for approval.

The method of obtaining approval for changes in the methodology and the need to inform relevant external and internal entities about changes in the methodology and parameters is regulated in the internal documentation of KDPW_CCP.

The models, methodologies and parameters used, as well as their changes, are subject to approval and/or validation by the relevant entities/authorities in accordance with the applicable rules in this regard.

Disclosure of information to the public regarding, among others, significant changes *inter alia* in the margin calculation methodology are published on the KDPW_CCP's website according to its *Disclosure policy.* More information regarding KDPW_CCP's disclosure policy is included in the *Principle 23: Disclosure of rules, key procedures, and market data).*

Assessment of principle:
Observed

Principle 7: Liquidity risk

An FMI should effectively measure, monitor, and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

In accordance with EMIR and relevant RTS KDPW_CCP has established a robust framework enabling it to effectively measure, monitor and manage its liquidity risk. KDPW_CCP does not rely on any assumption of the provision of central bank liquidity facility in meeting its stressed liquidity needs.

Key consideration 3 is not applicable for CCPs.

Key consideration 1: *An FMI should have a robust framework to manage its liquidity risks from its participants, settlement banks, nostro agents, custodian banks, liquidity providers, and other entities.*

KDPW_CCP measures, monitors and manages its liquidity risk according to its *Risk Management Policy* and *Liquidity Plan*. The framework specifies rules and principles adopted in regard to:

a) identifying sources of liquidity risk;
b) daily measuring and monitoring of the coverage of current liquidity needs and also the coverage of liquidity needs under the stress scenarios;
c) reporting of liquidity;
d) actions taken in the event of liquidity shortage.

KDPW_CCP identifies liquidity needs mainly due to daily clearing and settlement activity, conversion of cash to non-cash collateral by clearing members and withdrawal of surplus cash deposited as collateral by members. Moreover, KDPW_CCP is exposed to liquidity risk due to the default of clearing members and due to investment activities, including counterparty default, payment agent default, bankruptcy of the issuer of securities deposited as collateral, liquidity shortfall on the securities market, default of liquidity providers.

KDPW_CCP recognises multiple roles of its clearing members at the level of analysis of need for liquidity during stress conditions.

Key consideration 2: *An FMI should have effective operational and analytical tools to identify, measure, and monitor its settlement and funding flows on an ongoing and timely basis, including its use of intraday liquidity.*

For the purposes of liquidity risk management, KDPW_CCP sets the minimum value of cash that should be deposited in bank accounts with NBP on each day when clearing is made in a given currency. KDPW_CCP monitors on ongoing and timely basis its liquidity needs – need for intraday liquidity, need for EOD liquidity, need for liquidity in stress conditions.

In order to ensure sufficient funds to cover the claims of clearing members, KDPW_CCP continuously monitors liquidity needs during the clearing day (intraday), comparing the potential value of the required cash with the minimum cash level maintained. KDPW_CCP determines the final day-ahead

cash requirement for the adjustment of collateral posted by clearing members after the end of the clearing session and consists in comparing the required contributions to the default funds and relevant margins with the value of eligible collateral, as well as taking into account the need to return cash due to the changes in the form of collateral or payout of contributed surplus of cash. In addition to intra-day and EOD monitoring, KDPW_CCP assesses potential liquidity needs under stress scenarios (liquidity stress tests). In particular, the tests carried out are aimed at verifying whether the liquid funds available under the clearing guarantee system are sufficient to service the liabilities generated by the two clearing members with the highest exposure in extreme market conditions and entities belonging to their capital groups, while taking into account the liquidity risk which source is the investment policy. The results of the tests are used in the process of verifying the minimum level of cash and investment policy set by KDPW_CCP.

Key consideration 4: *A CCP should maintain sufficient liquid resources in all relevant currencies to settle securities-related payments, make required variation margin payments, and meet other payment obligations on time with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions. In addition, a CCP that is involved in activities with a more-complex risk profile or that is systemically important in multiple jurisdictions should consider maintaining additional liquidity resources sufficient to cover a wider range of potential stress scenarios that should include, but not be limited to, the default of the two participants and their affiliates that would generate the largest aggregate payment obligation to the CCP in extreme but plausible market conditions.*

The liquidity risk management framework adopted in KDPW_CCP is designed in such a way as to enable KDPW_CCP to maintain sufficient liquid resources in all relevant currencies (PLN and EUR) to settle securities-related payments, make required variation margin payments and meet other payment obligations on time with a high degree of confidence. As described in key consideration 2, KDPW_CCP monitors its liquidity on a daily basis. It also monitors liquidity needs under stress conditions for the purpose of which it tests liquid funds against four stress scenarios.

For the purpose of monitoring of liquidity needs under stress scenarios (liquidity stress tests), KDPW_CCP verifies whether the liquid funds available under the clearing guarantee system are sufficient to service the liabilities generated by the two clearing members with the highest exposure in extreme market conditions and entities belonging to their capital groups, while taking into account the liquidity risk which source is the investment policy.

Please refer to key consideration 2 to see details on liquidity monitoring.

Key consideration 5: *For the purpose of meeting its minimum liquid resource requirement, an FMI's qualifying liquid resources in each currency include cash at the central bank of issue and at creditworthy commercial banks, committed lines of credit, committed foreign exchange swaps, and committed repos, as well as highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, even in extreme but plausible market conditions. If an FMI has access to routine credit at the central bank of issue, the FMI may count such access as part of the minimum requirement to the extent it has collateral that is*

eligible for pledging to (or for conducting other appropriate forms of transactions with) the relevant central bank. All such resources should be available when needed.

KDPW_CCP manages a guarantee system which consists *inter alia* of the following types of assets:

a) own resources;
b) assets posted to the default funds (clearing fund and guarantee funds);
c) assets posted as margins.

KDPW_CCP when managing the above assets applies the rules of the *Investment Policy* including procedures defining the rules of managing assets which ensure maximization of the safety of assets and minimization of losses on investing activities while maintaining the adequate liquidity of assets. KDPW_CCP performs on a daily basis reliable and prudent valuation of own resources held and assets posted by clearing members.

Information regarding KDPW_CCP's investment policy can be obtained via this link: KDPW_CCP's investment policy

The funds of the system securing the liquidity of clearing required for a given day are kept on an account at the DSP NBP or within the TARGET2 system. If it is necessary to make a payment and at the same time there are insufficient funds in DSP NBP, KDPW_CCP obtains funds by selling its financial instruments, closing deposits or opening a credit line.

Each quarter KDPW_CCP publishes on its website PFMI quantitative disclosure that contains data regarding the size and composition of its qualifying liquid resources.

According to the *Liquidity Plan* and relevant documents, KDPW_CCP sets the minimum value of cash that should be deposited in bank accounts with the NBP on each day when clearing is performed in a given currency. In case qualified liquid resources do not meet minimum liquidity resource requirement, KDPW_CCP takes appropriate actions in order to cover this requirement.

KDPW_CCP does not have access to routine credit at the National Bank of Poland. However, it has access *inter alia* to credit lines at 2 creditworthy commercial banks.

Key consideration 6: *An FMI may supplement its qualifying liquid resources with other forms of liquid resources. If the FMI does so, then these liquid resources should be in the form of assets that are likely to be saleable or acceptable as collateral for lines of credit, swaps, or repos on an ad hoc basis following a default, even if this cannot be reliably prearranged or guaranteed in extreme market conditions. Even if an FMI does not have access to routine central bank credit, it should still take account of what collateral is typically accepted by the relevant central bank, as such assets may be more likely to be liquid in stressed circumstances. An FMI should not assume the availability of emergency central bank credit as a part of its liquidity plan.*

KDPW_CCP does not rely on financial resources provided by central bank. KDPW_CCP has agreements with credit institutions providing access to liquidity in PLN and EUR under credit lines. However, these credit lines are not treated as a fundamental source of liquidity and can be activated in case when funds in DSP NBP are insufficient.

Key consideration 7: *An FMI should obtain a high degree of confidence, through rigorous due diligence, that each provider of its minimum required qualifying liquid resources, whether a participant of the FMI or an external party, has sufficient information to understand and to manage its associated liquidity risks, and that it has the capacity to perform as required under its commitment. Where relevant to assessing a liquidity provider's performance reliability with respect to a particular currency, a liquidity provider's potential access to credit from the central bank of issue may be taken into account. An FMI should regularly test its procedures for accessing its liquid resources at a liquidity provider.*

KDPW_CCP does not rely on specific liquidity providers to meet its minimum required qualifying liquid resources. The margin and default fund contributions that KDPW_CCP receives from its clearing members are sufficient to meet the minimum required liquid qualifying resources. The *Liquidity Plan* presumes that a part of margins and default fund contributions shall be provided in cash.

KDPW_CCP assesses credit risk for credit institutions that may be KDPW_CCP's liquidity providers according to its *Counterparty and issuer credit risk assessment procedure.* For the assessment credit ratings given by following credit risk agencies are considered: Fitch Ratings, Moody's Investors Service, Standard and Poor's, EuroRating. Whether access to the central bank's credit is included in this assessment, depends on the methodology applied by credit rating agency. Regardless of the credit rating, credit institution is required to meet additional requirements set out in the document *Principles for determining the list of counterparties of KDPW_CCP.*

KDPW_CCP prepares on a daily basis liquidity reports that show the degree of coverage of current liquidity needs and the degree of coverage of liquidity needs in the assumed stress scenarios and which take into account liquid resources provided by liquidity providers.

Key consideration 8: *An FMI with access to central bank accounts, payment services, or securities services should use these services, where practical, to enhance its management of liquidity risk.*

KDPW_CCP holds liquid assets in PLN and EUR. All payments made by KDPW_CCP are paid via a bank account with DSP NBP or in TARGET2.

Key consideration 9: *An FMI should determine the amount and regularly test the sufficiency of its liquid resources through rigorous stress testing. An FMI should have clear procedures to report the results of its stress tests to appropriate decision makers at the FMI and to use these results to evaluate the adequacy of and adjust its liquidity risk-management framework. In conducting stress testing, an FMI should consider a wide range of relevant scenarios. Scenarios should include relevant peak historic price volatilities, shifts in other market factors such as price determinants and yield curves, multiple defaults over various time horizons, simultaneous pressures in funding and asset markets, and a spectrum of forward-looking stress scenarios in a variety of extreme but plausible market conditions. Scenarios should also take into account the design and operation of the FMI, include all entities that might pose material liquidity risks to the FMI (such as settlement banks, nostro agents, custodian banks, liquidity providers, and linked FMIs), and where appropriate, cover a multiday period. In all cases, an FMI should document its supporting rationale for, and should have appropriate governance arrangements relating to, the amount and form of total liquid resources it maintains.*

Within the liquidity stress testing framework, KDPW_CCP monitors the coverage of liquidity needs resulting from a potential simultaneous default of the two clearing members and its affiliates to which KDPW_CCP has the largest exposure. KDPW_CCP also takes into account the multiple relationships a clearing member or other entity has with KDPW_CCP. Liquidity stress tests are performed on a daily basis.

Liquidity stress testing assumes four different stress scenarios taking into consideration different currencies (PLN and EUR), defaults of different entities (clearing members and payment bank) and different reasons of these defaults.

KDPW_CCP analyses the results of liquidity stress tests conducted in order to assess and adjust the adequacy of its liquidity risk management framework and its liquidity providers. If the results of the tests indicate an insufficient level of liquid funds, KDPW_CCP increases the balance of these funds to an acceptable level as soon as possible. In addition, internal rules of KDPW_CCP allow for additional actions regarding its liquid resources.

The results of liquidity stress tests are included in liquidity reports described in key consideration 7. The reports are submitted to Managing Director (Chief Risk Officer) and Deputy Director.

The governance arrangements regarding the amount and form of KDPW_CCP's total liquid resources are specified in the *Liquidity Plan* and attachments to this document, i.e. the *Procedure for calculating and monitoring liquidity needs and the value of liquid funds held by KDPW_CCP S.A*, the *Investment Policy*, the *Counterparty and issuer credit risk assessment procedure.* This framework is subject to a cyclical (at least once a year) verification and updating performed by the Risk Management Team. In addition, verification should be carried out in special situations, such as coverage of new types of instruments with guarantees, changes in the risk management model, changes in regulations, changes in the market that could affect the assumptions underlying liquidity management.

The *Liquidity Plan* as well as its amendments are subject to approval and/or validation by the relevant entities/authorities in accordance with the applicable rules in this regard.

Key consideration 10: *An FMI should establish explicit rules and procedures that enable the FMI to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations on time following any individual or combined default among its participants. These rules and procedures should address unforeseen and potentially uncovered liquidity shortfalls and should aim to avoid unwinding, revoking, or delaying the same-day settlement of payment obligations. These rules and procedures should also indicate the FMI's process to replenish any liquidity resources it may employ during a stress event, so that it can continue to operate in a safe and sound manner.*

KDPW_CCP maintains arrangements that ensure settlement finality what is described in the *Principle 8: Settlement finality).* These arrangements along with arrangements foreseen in the *Liquidity Plan* and accompanying documents enable to settle payment obligations on time following any individual or combined default among KDPW_CCP's clearing members.

As mentioned in key consideration 5 if it is necessary to make a payment and at the same time there are insufficient funds in DSP NBP, KDPW_CCP obtains funds by selling its financial instruments, closing deposits or opening a credit line.

The *Liquidity Plan* indicates certain time horizons in which given liquidity funds have to be available. In addition, KDPW_CCP manages its collateral so that each day the required level of funds needed to handle all the foreseen situations is kept on the account at DSP NBP. In case of unforeseen and potentially uncovered liquidity shortfalls, it is regarded as default and then liquidity needs are assessed in stress conditions.

As described in *Principle 4: Credit risk)* KDPW_CCP foresees in its rulebooks certain measures aimed at replenishment of financial resources exhausted in a stress event. According to the *Rules of the Clearing Guarantee Fund* (organised trading) following the completion of measures defined in the *Rules of Transaction Clearing* involving any disbursement of assets of the clearing fund, KDPW_CCP shall update the contributions to the basic resource of the clearing fund and determine the amount of replacement contributions. Members shall be obliged immediately to replenish the clearing fund according to the update. Under the *Rules of the OTC Guarantee Fund* (OTC trading) following the completion of measures defined in the *Rules* involving any disbursement of assets of the OTC clearing fund, KDPW_CCP shall update the contributions to the basic resource of the OTC clearing fund and determine the amount of replacement contributions. Members shall be obliged immediately to replenish the OTC clearing fund according to the update. Both rulebooks further define conditions for replenishment of default fund resources.

In particular, replenishment contributions are provided in relation to the value of clearing members' contributions to the clearing guarantee funds. Replenishment contributions are provided up to the difference between the value of the part of the relevant clearing guarantee fund used and the total value of funds contributed as contributions to the clearing guarantee fund by a clearing member who, contrary to the obligation, did not have the funds necessary to settle the transaction.

KDPW_CCP also has at its disposal means and arrangements for replenishment of its dedicated resources. In particular if assets constituting dedicated resources are used according to the provisions of the rules, KDPW_CCP shall immediately take actions necessary to replenish the dedicated resources up to at least 25% of the KDPW_CCP capital requirement within one month of the day when such resources are used. If as a result of the need for KDPW_CCP to use its own capital, its amount falls below 110% of the value of the capital requirement calculated in accordance with EMIR, KDPW_CCP uses measures enabling to replenish its capital.

Assessment of principle:
Observed

Principle 8: Settlement finality

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

KDPW_CCP's arrangements that ensure settlement finality have been established in the relevant KDPW_CCP's rulebooks – the *Rules of Transaction Clearing* (for organised trading and OTC trading) and accompanying documents, namely the *Detailed Rules of Transaction Clearing* (organised trading) and the *Detailed Rules of the OTC Clearing System,* which all as mentioned previously, are publicly available on the KDPW_CCP's website.

Key consideration 1: *An FMI's rules and procedures should clearly define the point at which settlement is final.*

The settlement finality has been documented in the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading) which are publicly available. According to its rulebooks KDPW_CCP acts as central counterparty within the meaning of the *Act of 24 August 2001 on the Finality of Settlement in Payment Systems and Securities Settlement Systems and the Rules of Supervision over those Systems* which implements *Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems (the Settlement Finality Directive)*. It means that each settlement transaction performed on behalf of KDPW_CCP is final and irrevocable at the moment of its execution.

Due to the fact that KDPW_CCP operates mainly in Polish market, its clearing members are entities operating in the EU and given the fact that common EU rules apply to the settlement finality, actually there is no need for KDPW_CCP to demonstrate a high degree of legal certainty that finality will be achieved in all relevant jurisdictions.

In terms of confirmation of acknowledge the discharge of a payment, transfer instruction or other obligation between CCP and its members, or between members, KDPW_CCP applies the provisions of the PSD2 Directive and the act implementing it in the territory of the Republic of Poland, i.e., the *Payment Services Act of 19 August 2011* (as amended). The principles and rules set out therein are included in KDPW_CCP regulations.

According to § 37a of the *Rules of Transaction Clearing* (organised trading) KDPW_CCP cash credits subject to cash netting and non-cash netting, respectively, in connection with the clearing of a transaction shall be cancelled, respectively:

1/ for transactions in securities - upon the settlement of the transaction performed in the relevant settlement institution on the basis of a settlement order provided by KDPW_CCP for the transaction up to the amount defined by such institution;

2/ for transactions in derivatives:

a/upon the bank account maintained by the clearing bank being debited or credited, respectively, on the basis of a settlement order provided to the relevant payment system or a transfer order provided to the clearing bank, or

b/if the outcome of netting does not require a settlement order or transfer order – upon the registration in the clearing accounts of the status resulting from the clearing of such transactions

performed by KDPW_CCP and a notification of records in such accounts given to members holding the status of clearing member for which such accounts are maintained.

Key consideration 2: *An FMI should complete final settlement no later than the end of the value date, and preferably intraday or in real time, to reduce settlement risk. An LVPS or SSS should consider adopting RTGS or multiple-batch processing during the settlement day.*

According to § 41 of the *Rules of Transaction Clearing* (organised trading) the settlement instructions for transactions in securities, shall be sent by KDPW_CCP to the relevant settlement institution within the proper deadline to enable the settlement processing of the transaction on the day on which the settlement should take place in accordance with the rules of such institution.

In instances where the relevant settlement institution is the Central Securities Depository of Poland (KDPW), KDPW_CCP sends the settlement instructions for transactions in securities:

- in instances of the settlement of transactions executed in the regulated market or the alternative trading system, whose settlement date is set after the day when they are accepted for clearing in the clearing system according to the contents of clearing instructions, for settlement in the multibatch system, on the first settlement session on which on the day on which the settlement should take place in accordance with the rules of such institution, settlement is processed for transactions executed in the regulated market or the alternative trading system;
- in instances of the settlement of transactions other than repo transactions, executed in the regulated market or the alternative trading system, whose settlement date is set on the day on which the settlement should take place in accordance with the rules of such institution, when they are accepted for clearing in the clearing system according to the contents of clearing instructions, immediately for settlement in the multibatch system, on the settlement session on which on the day, set in the clearing instruction, settlement is processed for such transactions;
- in instances of the settlement of repo transactions, executed in the regulated market or the alternative trading system, whose settlement date is set on the day when they are accepted for clearing in the clearing system according to the contents of clearing instructions, for settlement in the multibatch system, on the settlement session on which on the day, on which the settlement should take place in accordance with the rules of such institution, set in the clearing instruction, settlement is processed for such transactions, on the date determined in the *Detailed Rules of Transaction Clearing* (organised trading);
- in instances of the settlement of on-demand loans concluded in the negotiated lending system – immediately for settlement in the multibatch system, on the settlement session on which on the day on which the settlement should take place in accordance with the rules of such institution, set in the clearing instruction, settlement is processed for such loans.

Immediately upon the settlement of a transaction performed by the relevant settlement institution on the basis of a settlement instruction for transactions in securities, KDPW_CCP registers the outcome of such settlement in the relevant clearing account on the basis of information received from that institution. In the event of settlement suspension of a transaction in securities by such institution,

KDPW_CCP immediately registers the outcome of such suspension in the relevant clearing account on the basis of information received from that institution.

Immediately upon a cash payment on the basis of a settlement instruction for transactions in derivatives, KDPW_CCP registers the outcome of such settlement in the relevant clearing account on the basis of information received from the clearing bank.

Under the *Detailed Rules of Transaction Clearing* (organised trading):

- the settlement date of the opening leg of a repo may be from T+0 to T+2,
- the settlement date of the closing leg of a repo may be from T+1 to T+365,
- the settlement date of the delivery of the underlying of American-style option is R+2.

The settlement period for all other financial instruments in the organised trading is T+2.

Under § 41 and § 55b of the *Rules of Transaction Clearing* (organised trading) and § 41a of the *Detailed Rules of Transaction Clearing* (organised trading) KDPW_CCP allows for partial settlement.

According to § 67 of the *Rules of Transaction Clearing* (OTC trading) KDPW_CCP submits settlement orders to the relevant settlement system, respectively, for the opening transaction and the closing transaction arising from a repo transaction or sale transaction in due time necessary for settlement of the transaction on the day designated in the contents of the clearing instruction, on which it should be performed according to the regulations of the system. Where the relevant settlement system is the system operated by the Central Securities Depository of Poland, KDPW_CCP sends settlement orders according to the contents of the clearing instruction or according to the contents of an instruction of the clearing member for settlement on the day designated in clearing instruction to the relevant settlement session performed in the multiple-batch system.

KDPW_CCP submits, immediately on the clearing of a derivative transaction, a settlement order to the relevant payment system or a transfer order to the relevant clearing bank, including a system that is a part of TARGET2, or where the cash payment of the member is executed through the agency of the payment agent, an instruction to submit, respectively, a settlement order or a transfer order.

As for OTC trading, Appendix 1 to the *Detailed Rules of the OTC Clearing System* includes details of each OTC derivative class cleared, in particular settlement date.

Settlement deferrals take place in accordance with the regulations. To date, there has not been a case in KDPW_CCP of such a deferral being incompatible with KDPW_CCP's rules, procedures and contracts.

The clearing of a transaction shall take place on the date of its execution, on condition that the clearing instruction was delivered on that date to KDPW_CCP no later than the time determined in the KDPW_CCP regulations. KDPW_CCP records the transaction settlement date in the clearing system. Members are informed about the final settlement by the clearing house outside the KDPW_CCP clearing system.

If clearing member has an automated process on his side, KDPW_CCP sends a margin call to replenish the funds. In that case settlement can happen on a real time basis. KDPW_CCP sends an instruction that will debit his account at the central bank. In practice, margin calls are executed within 30 minutes.

KDPW_CCP allows for settlement in the multi-batch system. Settlement is conducted for securities three times a day via settlement sessions in KDPW. Settlement is conducted via DvP.

Key consideration 3: *An FMI should clearly define the point after which unsettled payments, transfer instructions, or other obligations may not be revoked by a participant.*

In case of organised trading, in its rulebook KDPW_CCP has introduced provisions regulating recall of clearing instructions entered into the clearing system. For further information please see § 39a of the *Rules of Transaction Clearing* (organised trading).

As for OTC trading, in its rulebook KDPW_CCP foresees that under certain conditions a clearing instruction introduced to the OTC clearing system shall not be withdrawn from the system once its has been delivered to the system. For further information please refer to § 65 of the *Rules of Transaction Clearing* (OTC trading).

Under the *Detailed rules of Transaction Clearing* (organised trading) in case of repo transactions in organised trading KDPW_CCP applies gross DVP settlement during a KDPW settlement session. Under the *Detailed rules of OTC Clearing System* as for Treasury bonds in OTC trading KDPW_CCP applies DVP settlement: at settlement date, the seller receives the settlement amount, and the buyer receives the securities. In case of repo and sell- buy back in OTC trading KDPW_CCP applies DVP: at purchase date, the buyer (seller) of bonds pays (receives) the purchase amount against receipt (delivery) of bonds, and at repurchase date the buyer (seller) delivers (receives) bonds against receipt (payment) of the repurchase amount.

Assessment of principle:
Observed

Principle 9: Money settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

KDPW_CCP conducts its money settlements in central bank money where practical and available. Should funds kept on an account at the DSP NBP or within TARGET2 system be unavailable, KDPW_CCP obtains funds by selling its financial instruments, closing deposits or opening a credit line. Money settlements are regulated in relevant rulebooks of KDPW_CCP and its *Liquidity Plan.*

Key consideration 1: *An FMI should conduct its money settlements in central bank money, where practical and available, to avoid credit and liquidity risks.*

Under KDPW_CCP's *Liquidity Plan* KDPW_CCP keeps the funds of the system securing the liquidity of settlements required for a given day on an account at the DSP NBP or within the TARGET2 system. All payments are conducted via account held at the DSP NBP or within TARGET2. KDPW_CCP conducts money settlement in PLN and EUR.

Further details on money settlements in PLN and EUR are included in the relevant rulebooks of KDPW_CCP - the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading).

Key consideration 2: *If central bank money is not used, an FMI should conduct its money settlements using a settlement asset with little or no credit or liquidity risk.*

All payments are conducted via account held at DSP NBP or via TARGET2 system. Should these funds be unavailable, KDPW_CCP obtains funds by selling its financial instruments, closing deposits or opening a credit line. All funds obtained from the sale of securities contributed by clearing members as contributions to the clearing liquidity system and acquired through investments, upon completion of repurchase agreements and the sale of funds in EUR, are then transferred to an account in the DSP NBP or in the TARGET2 system. In case of credit lines, KDPW_CCP manages credit and liquidity risks by applying the *Counterparty and issuer credit risk assessment procedure* according to which KDPW_CCP assesses credit risk for credit institutions that may be KDPW_CCP's liquidity providers. For the assessment credit ratings given by following credit risk agencies are taken into account: Fitch Ratings, Moody's Investors Service, Standard and Poor's, EuroRating. Regardless of the credit rating, this institution must meet additional requirements set out in the *Principles for determining the list of counterparties of KDPW_CCP.*

Key consideration 3: *If an FMI settles in commercial bank money, it should monitor, manage, and limit its credit and liquidity risks arising from the commercial settlement banks. In particular, an FMI should establish and monitor adherence to strict criteria for its settlement banks that take account of, among other things, their regulation and supervision, creditworthiness, capitalisation, access to liquidity, and operational reliability. An FMI should also monitor and manage the concentration of credit and liquidity exposures to its commercial settlement banks.*

As KDPW_CCP conducts payments in central bank money, this key consideration is not applicable.

Key consideration 4: *If an FMI conducts money settlements on its own books, it should minimise and strictly control its credit and liquidity risks.*

This key consideration it not applicable as KDPW_CCP conducts money settlements in central bank money or via central securities depository (KDPW) and does not conduct money settlements on its own books.

Key consideration 5: *An FMI's legal agreements with any settlement banks should state clearly when transfers on the books of individual settlement banks are expected to occur, that transfers are to be final when effected, and that funds received should be transferable as soon as possible, at a minimum by the end of the day and ideally intraday, in order to enable the FMI and its participants to manage credit and liquidity risks.*

This consideration is not applicable to KDPW_CCP.

Assessment of principle:
Observed

Principle 10: Physical deliveries

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor, and manage the risks associated with such physical deliveries.

The relevant rulebooks of KDPW_CCP establish and govern all obligations and responsibilities with regards to physical delivered instruments. KDPW_CCP does not offer storage of physical instruments and commodities.

Key consideration 1: *An FMI's rules should clearly state its obligations with respect to the delivery of physical instruments or commodities.*

Under the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading) KDPW_CCP accepts for physical delivery following asset classes: American-style options (organised trading), repo transactions, sell/ buy-back transactions (OTC trading).

All details regarding physical delivery of underlying are included in the *Rules of Transaction Clearing* (organised trading), t*he Detailed rules of Transaction Clearing* (organised trading), the *Rules of Transaction Clearing* (OTC trading) and the *Detailed rules of OTC Clearing System* (OTC trading). In these documents, procedures regarding physical deliveries of underlying are specified. As mentioned previously, the documents are publicly available on the KDPW_CCP's website.

Key consideration 2: *An FMI should identify, monitor, and manage the risks and costs associated with the storage and delivery of physical instruments or commodities.*

KDPW_CCP does not offer storage of physical instruments and commodities. As for delivery of physical instruments, KDPW_CCP does not offer delivery of instruments other than securities via authorised central securities depository (KDPW).

Assessment of principle
Observed

Principle 13: Participant-default rules and procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures and continue to meet its obligations.

KDPW_CCP has effective, clearly defined and well documented rules and procedures that are applied to manage a participant default. They are included in publicly available rulebooks and internal regulations, namely the *Procedure in the event of default of a KDPW_CCP Clearing Member.*

Key consideration 1: *An FMI should have default rules and procedures that enable the FMI to continue to meet its obligations in the event of a participant default and that address the replenishment of resources following a default.*

KDPW_CCP in cooperation with the Central Securities Depository of Poland (KDPW), basing on reliable information and having first requested the member to immediately perform its obligations (unless that member has been declared bankrupt) decides to take certain measures in response to events resulting in default or threat of default of a KDPW_CCP clearing member, which events qualify as breach under the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading), respectively, including but not limited to any of the following circumstances:

1) Shortage or lack of funds found in the clearing bank account held for the KDPW_CCP clearing member or in the bank account of that member's payment agent necessary to meet that member's obligations in settlement of the transactions executed;

2) Failure of the KDPW_CCP clearing member to make the required supplementary contributions to the clearing fund and to the relevant (ATS or OTC) guarantee fund or towards collateral deposits (organised and OTC trading);

3) Lack of funds found for the KDPW_CCP clearing member necessary to execute transaction clearing as a consequence of failure of another entity to deliver securities to be sold to provide a source of such funding;

4) Discontinuance of all or part of its operations by the KDPW_CCP clearing member upon withdrawal of either the PFSA license for broker activities or the PFSA license for managing securities accounts or revocation of an authorisation to set up a bank or commencement of a winding-up procedure in respect of the KDPW_CCP clearing member or any other similar event if such events affect the liquidity of the guaranteed transactions settlement;

5) Reliable information is received to the effect that PFSA has decided to suspend the operations of the KDPW_CCP clearing member being a bank or filing a petition for bankruptcy against the KDPW_CCP clearing member with the court by a member or members of the management board or other authorised representatives of that member or being notified by the National Bank of Poland or by another reliable source that the KDPW_CCP clearing member has been declared bankrupt;

6) Reliable information is received to the effect that the competent resolution authority has issued a decision which affects the participation of the clearing member in the clearing system and/or affects

cleared transactions for which such member is a clearing counterparty.
In this case KDPW_CCP Chief Risk Officer notifies the KDPW_CCP Management Board that a risk exceeding the tolerance threshold has been identified and the Default Committee is held and chaired by the President of the KDPW_CCP Management Board. The Committee is responsible for coordinating measures taken by internal organisational units of KDPW_CCP and KDPW as necessary to ensure the payment of debits resulting from the clearing of transactions which requires the use of resources of the clearing guarantee system controlled by KDPW_CCP and to prevent further default resulting from failure of the defaulting KDPW_CCP clearing member to pay debits.

The concerned KDPW_CCP clearing member, the Polish Financial Supervision Authority, and the operators of the guaranteed markets, on which the clearing member or entities represented by it in clearing of transactions operate, are informed about the adoption of a resolution cancelling the participation of a clearing member or suspending its operation in a given clearing system. Furthermore, KDPW_CCP sends a message blocking the defaulting KDPW_CCP clearing member or entities which conclude transactions for such member on all guaranteed markets.

The procedures also clearly regulate the management of transactions at different stages of processing and the probable sequencing of actions.

All remaining positions of the defaulting member shall be closed down. To achieve this, KDPW_CCP has the power to conclude hedge trades or unwinding trades, or, as in case of OTC trading, hedge and auction them in the process of automatic termination.

Entities acting as non-clearing members of the defaulting member that have positions registered on its accounts have the right, within the assigned time frame, to request the transfer of their positions arising from concluded transactions and associated collateral to another account opened by the member that has committed to perform obligations arising from the clearing of such transactions.

Following the adoption of a resolution of the KDPW_CCP Management Board to liquidate the positions of a defaulting clearing member, default is handled in the following steps:

- The KDPW_CCP clearing member and entities cleared by such member are blocked on all guaranteed markets.
- The positions and collateral of NCM clients of the defaulting member are transferred to another clearing member.
- The defaulting member's positions are closed out.
- The gains and losses on the closing of the defaulting member's positions are paid. Losses, if any, are paid from the clearing guarantee system

The following pictures delineate the order in which KDPW_CCP uses its financial resources in case of default – separately for organised trading and OTC trading.

KDPW_CCP is obliged to cover losses in respect of obligations arising from transactions cleared by KDPW_CCP. Assets of the guarantee system may be used on the occurrence of an event of default to cover any losses connected to closing positions. When doing so, KDPW_CCP shall use first all receivables and collateral posted by a defaulting counterparty. If the loss has not been covered at this stage, the clearing house before using other members' contributions to the relevant fund is obliged to use its own dedicated resources. The dedicated own funds represent at least 25% of KDPW_CCP capital requirement. Next, remaining KDPW_CCP own equity is used up to 110% of capital requirement. If the amount of own funds drops to the level of 110% of capital requirement, KDPW_CCP shall call members to make additional contributions to the relevant default fund, not greater than 50% of the contributions according to their latest update.

Should all funded and unfunded resources available in Clearing Guarantee System Waterfall be depleted, KDPW_CCP launches its recovery plan. The plan identifies the conditions and procedures to be followed in order to carry out the recovery in a timely manner, including a projected timeframe for the implementation of each material aspect of the plan. It contains a list of recovery tools that *inter alia* aim at replenishing resources following the default.

Key consideration 2: *An FMI should be well prepared to implement its default rules and procedures, including any appropriate discretionary procedures provided for in its rules.*

As mentioned in the key consideration 1, the *Procedure in the Event of Default of a KDPW_CCP Clearing Member* delineates the roles and responsibilities of internal units of KDPW_CCP aiming for addressing a default.

The *Procedure* contains communication procedures specifying flow of information between internal units of KDPW_CCP, supervisory authorities, defaulting clearing members and other stakeholders.

The internal plans are reviewed within the review of the *Procedure* what is described in key consideration 4.

Key consideration 3: *An FMI should publicly disclose key aspects of its default rules and procedures.*

Key aspects of the procedure applied in the event of default of KDPW_CCP's clearing member are publicly available and can be found via this link: Key aspects of procedure in case of default of clearing member

The document includes information regarding following aspects of default management:

- triggers for measures,
- scope of measures,
- clearing guarantee system waterfall,
- default procedure review and testing.

KDPW_CCP also publishes on its website information regarding funds, dedicates resources and allocation. In particular it publishes parameters for calculating contributions to the fund in the event of default of the clearing member. Such information is obtainable via this link: Funds, dedicated resources and allocation

Key consideration 4: *An FMI should involve its participants and other stakeholders in the testing and review of the FMI's default procedures, including any close-out procedures. Such testing and review should be conducted at least annually or following material changes to the rules and procedures to ensure that they are practical and effective.*

KDPW_CCP reviews the *Procedure in the Event of Default of a KDPW_CCP Clearing Member* once per quarter and, where its amendment is required, asks the opinion of the Risk Committee. Internal testing of the procedure is performed once per quarter. Testing of the procedure with the participation of KDPW_CCP clearing members and other relevant infrastructure entities is conducted once per year or upon a significant amendment of the procedure.

KDPW_CCP tests default of its clearing members, whereby KDPW_CCP clearing members are required to participate in the tests once a year. The remaining three tests are performed internally. As part of the tests of its default procedures, KDPW_CCP conducts simulations in which a default scenario of the clearing member(s) and their clients is assumed. The purpose of the tests is to verify the correctness of the procedures adopted in the event of a clearing member's default and the operational readiness of both KDPW_CCP and its clearing members. A detailed test scenario is prepared separately for each

test. As a part of the test scenario a catalogue of activities is assumed which is delineated in the attachement to the *Procedure in the Event of Default of a KDPW_CCP Clearing Member.*

Assessment of principle:
Observed

Principle 14: Segregation and portability

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Position segregation and portability at KDPW_CCP are strictly connected with the structure of the system of clearing accounts and their application. It is regulated in the relevant rulebooks of KDPW_CCP and accompanying documents, namely the *Rules of Transaction Clearing* and the *Detailed Rules of Transaction Clearing* (organised trading), the *Rules of Transaction Clearing* and the *Detailed Rules of the OTC Clearing System* (OTC trading).

Key consideration 1: *A CCP should, at a minimum, have segregation and portability arrangements that effectively protect a participant's customers' positions and related collateral from the default or insolvency of that participant. If the CCP additionally offers protection of such customer positions and collateral against the concurrent default of the participant and a fellow customer, the CCP should take steps to ensure that such protection is effective.*

As a CCP authorised under EMIR regulation KDPW_CCP offers different segregation options for its members which are strictly connected with the structure of the clearing accounts. Clearing accounts have their unique characteristics depending on the trading system (organised trading or OTC trading), market segment (cash, derivatives or OTC derivatives and repo) and type of ownership (house or client).

The structure of clearing accounts in KDPW_CCP is delineated below:

Clearing members' house accounts are always of individual accounts' (IND) nature. On house accounts only the clearing member's positions are registered.

Clients' positions can be registered on the following clearing accounts:

- individual (IND) in the case of clearing transactions of an individual client with whom KDPW_CCP has no contractual relation,
- individual with full segregation (IFS) in the case of clearing transactions of an individual client who concluded a participation agreement with KDPW_CCP for a membership type – non-clearing member (NCM),
- omnibus (OMB) in the case of clearing on one account transactions of many clients with whom KDPW_CCP has no contractual relation,

- omnibus with full segregation (OFS) in the case of clearing on one account transactions of many clients who concluded participation agreements with KDPW_CCP for a membership type – non-clearing member (NCM).

In case of organised trading, margin requirement for the given collateral account is calculated as a sum of initial margin requirements calculated separately for positions registered in each clearing account that is linked to it. In case of OTC trading, initial margin requirement for the given collateral account arises from positions registered in all clearing accounts that are linked to it and includes all allowable offsets between positions registered in these accounts.

A member is also allowed to post collateral in excess of initial margin requirement onto specific collateral account which, if it belongs to a client, would be considered to cover only the risk associated with such client's positions. If a member chooses to post collateral on its own collateral account, then such collateral is used against the risk that arises from its own positions and the risks that stem from postions of the clients it clears. A member may also choose to post collateral onto initial deposit which would be used as a buffer for its possible increased exposure due to intraday clearing activity or marking to market not covered by excess collateral posted onto collateral account. Excess cash collateral registered on collateral account would be released in the end of day process and settled next day.

A member acting as non-clearing member in the event of default of a member in whose accounts he has his positions registered may request that such positions be transferred together with collateral posted to secure such positions to a designated clearing account and designated collateral account opened by another member.

In the case of a clearing member's default, a non-clearing member of KDPW_CCP can place an order to transfer positions and assets contributed as initial margin to a different clearing member. For this purpose, within the timeframe defined by KDPW_CCP, the non-clearing member (NCM) places a written order concerning these positions and assets which also indicates a different clearing member to whom they are to be transferred. Simultaneously, the clearing member to whom the positions and assets are to be transferred places an order in which he expresses acceptance to take over these positions and assets of the NCM. KDPW_CCP carries out the order of positions and assets' transfer as soon as it receives appropriately matching and complete orders.

Porting is regulated in the relevant rulebooks of KDPW_CCP. Porting rules are also indicated in participation agreements. In addition, in order to ensure the effectiveness of porting KDPW_CCP has asked for legal opinions – separately for organised trading and for OTC trading. Both opinions confirmed effectiveness of provisions regarding porting in case of clearing member's default.

Key consideration 2: *A CCP should employ an account structure that enables it readily to identify positions of a participant's customers and to segregate related collateral. A CCP should maintain customer positions and collateral in individual customer accounts or in omnibus customer accounts.*

KDPW_CCP offers both individual and omnibus clearing accounts. Provided that concerned individual clients conclude a participation agreement with KDPW_CCP for a membership type – non-clearing

member (NCM), KDPW_CCP offers a full segregation option which allows for application of portability mechanism as defined under EMIR Regulation.

Each clearing account has a collateral account assigned to it onto which margin requirement is calculated and where collateral to cover it is held.

Each entity may establish many clearing accounts although all of them would be linked to the single collateral account opened for such entity.

In case of organised trading regulations MiFID 2 and MiFIR require that CCPs provide their clearing members with such an account structure which enables identification of positions and assets of their direct clients (DC) and indirect clients (INDC). Therefore, a CCP should enable its clearing members to open the following types of accounts:

- GOSA (*gross omnibus segregated account*) – where KDPW_CCP registers positions and assets of direct and indirect clients, which are represented by a clearing member in the clearing system, in a way enabling separate registration of positions of each client and where the KDPW_CCP clearing member is obliged to ensure segregation of positions of each client in such a way that assets of a given client cannot be used to cover losses of other clients, and
- OSA (*omnibus segregated account*) – where KDPW_CCP registers positions and assets of direct and indirect clients, which are represented by a clearing member in the clearing system.

KDPW_CCP account system has functionalities which meet the requirements imposed by regulations on CCPs.

Key consideration 3: *A CCP should structure its portability arrangements in a way that makes it highly likely that the positions and collateral of a defaulting participant's customers will be transferred to one or more other participants.*

In general, the portability arrangements are regulated in the relevant rulebooks of KDPW_CCP. They regulate consent procedures in case of positions and collateral to be ported.

The transfer of positions and assets may take place after the identification of an event of default, on the basis of matching instructions for the transfer of positions and assets, sent by a member acting with participation type of NCM and a member assuming the status of a clearing member for such positions, to a designated clearing account and an assigned collateral account opened by the member assuming the status of clearing member for such positions, submitted within a time limit set by KDPW_CCP not shorter than 60 minutes.

According to the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading) the submission of an instruction by a member assuming the status of clearing member of positions of a defaulting member simultaneously implies its consent for the performance of all obligations related to the clearing of transactions. The transfer of positions and assets requires the consent of KDPW_CCP acting on its own behalf and on the basis of a power of attorney. Such consent shall be granted on the condition precedent that the assuming member meets certain the conditions specified in the *Rules.*

Key consideration 4: *A CCP should disclose its rules, policies, and procedures relating to the segregation and portability of a participant's customers' positions and related collateral. In particular, the CCP should disclose whether customer collateral is protected on an individual or omnibus basis. In addition, a CCP should disclose any constraints, such as legal or operational constraints, that may impair its ability to segregate or port a participant's customers' positions and related collateral.*

KDPW_CCP discloses on its website information regarding accounts for organised trading and accounts for OTC trading. The disclosure includes basis on which collateral is protected. The information can be obtaine via links below:

Accounts - organised trading

Accounts - OTC trading

KDPW_CCP also publishes information on position and asset segregation obtainable via this link: Position and asset segregation

In addition to that rules on segregation and porting are provided in relevant rulebooks of KDPW_CCP and accompanying documents which are publicly available.

The costs associated with different level of segregation are included in KDPW_CCP's Tables of Fees (separately for organised trading and OTC trading) and are available via this link:

Table of Fees – organised trading

Table of Fees – OTC trading

In addition, quantitative information regarding total client positions is included in KDPW_CCP public quantitative disclosures available via this link: KDPW_CCP PQD

Assessment of principle:
Observed

Principle 15: General business risk

General business risk is defined in KDPW_CCP's *Risk Management Policy* as the risk of incurring losses resulting from unfavourable changes in the business environment, poor execution of business strategy, failure in market competition, unsuccessful business decisions or unexpected and excessively large operational expenses.

Key consideration 1: *An FMI should have robust management and control systems to identify, monitor, and manage general business risks, including losses from poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.*

The definition of general business risk is included in the KDPW_CCP's *Risk Management Policy.* KDPW_CCP identifies, monitors and manages general business risk, including the risk resulting from unfavourable changes in the business environment, poor execution of business strategy, failure in market competition, unsuccessful business decisions or unexpected and excessively large operational expenses. The general business risk is also addressed in the KDPW_CCP's *Recovery Plan.* General business risk is estimated based on reasonably foreseeable adverse scenarios relevant to its business model.

KDPW_CCP periodically assesses *inter alia* the significance of general business risk based on the following criteria:

- the amount of unexpected losses that may occur and their impact on the financial situation of KDPW_CCP,
- requirements under RTS 152/2013,
- qualitative criteria specific for a given type of risk, for example impact on the reputation of KDPW_CCP and the implementation of the assumed business strategy,
- expert assessment.

Key consideration 2: *An FMI should hold liquid net assets funded by equity (such as common stock, disclosed reserves, or other retained earnings) so that it can continue operations and services as a going concern if it incurs general business losses. The amount of liquid net assets funded by equity an FMI should hold should be determined by its general business risk profile and the length of time required to achieve a recovery or orderly wind-down, as appropriate, of its critical operations and services if such action is taken*

KDPW_CCP holds liquid net assets funded by equity enabling KDPW_CCP to continue operations and services. In particular, based on assumed scenarios, the capital necessary to cover losses resulting from business risk is estimated according to art.5 of RTS 152/2013 and cannot be less than 25% of KDPW_CCP annual gross operational expenses. The adopted scenarios are subject to review at least on a quarterly basis. Additionally, KDPW_CCP submits to the PFSA for approval own estimate of the capital required to cover losses resulting from its business risk.

More information regarding KDPW_CCP's capital requirements, in particular, with regard to business risk, is available via this link: KDPW_CCP's capital requirements

For details regarding KDPW_CCP's equity please refer to its annual reports available via this link: KDPW_CCP annual reports

Key consideration 3: *An FMI should maintain a viable recovery or orderly wind-down plan and should hold sufficient liquid net assets funded by equity to implement this plan. At a minimum, an FMI should hold liquid net assets funded by equity equal to at least six months of current operating expenses. These assets are in addition to resources held to cover participant defaults or other risks covered under the financial resources principles. However, equity held under international risk-based capital standards can be included where relevant and appropriate to avoid duplicate capital requirements.*

KDPW_CCP has the *Recovery Plan* that takes into consideration materialisation of general business risk and addresses effects following this materialisation. The *Recovery Plan* equips KDPW_CCP wih appropriate toolkit of recovery measures that enable KDPW_CCP to deal with thes effects in an orderly and timely manner.

KDPW_CCP has wind down procedures specified in the *Procedure to be followed to by KDPW_CCP S.A. in case of withdrawal or restriction of authorisation to provide clearing services as a CCP.*

KDPW_CCP monitors whether its own capital is sufficient to cover losses resulting from general business risk and performing recovery action or an orderly winding down within the assumed period.

KDPW_CCP estimates the capital requirement for winding down or restructuring its activities in order to ensure that it has sufficient financial resources to cover operational expenses in the period necessary to reorganise or wind down the company in a manner that is safe for the capital market. According to art. 2 of RTS 152/2013, this requirement is equal to its monthly gross operational expenses multiplied by the KDPW_CCP time span for winding down or restructuring of its activities.

The time span estimated by KDPW_CCP, which is 9 months, is sufficient to ensure in both normal and extreme market conditions an orderly wind down or restructurisation of its activities, reorganization of its operations, liquidation of the cleared portfolio or transfer of clearing activities to another CCP. The estimated time span for winding down or restructuring of its activities is reviewed at least on a quarterly basis. In addition, KDPW_CCP informs PFSA about each relevant change in the assumptions underlying the estimation of time span for winding down or restructuring of its activities and submits to it for its approval the updated estimate.

Key consideration 4: *Assets held to cover general business risk should be of high quality and sufficiently liquid in order to allow the FMI to meet its current and projected operating expenses under a range of scenarios, including in adverse market conditions.*

Financial resources of KDPW_CCP, that are also held to cover business risk, are invested according to the adopted *Investment Policy*, which sets out investment requirements in accordance with EMIR Regulation and RTS 153/2013, only in highly liquid financial instruments with minimal market and credit risk or deposited with counterparties that are listed on KDPW_CCP approved counterparty list, for which KDPW_CCP performs internal assessment of their credit risk, within the approved concentration limits.

According to the *Investment Policy* KDPW_CCP may store or invest its own required capitals and assets contributed by members:

a) on accounts with the National Bank of Poland (NBP),
b) in accounts with Bank Gospodarstwa Krajowego (BGK) and commercial banks,

c) in bills and bonds issued by the State Treasury or the NBP,
d) in debt instruments guaranteed by the State Treasury or the NBP, issued by other entities,
e) in bonds issued by the European Investment Bank (EIB) or the European Bank for Reconstruction and Development (EBRD),
f) Treasury debt securities, which are denominated in euro, issued by countries other than the Republic of Poland of countries that are members of the European Union,
g) in unsecured bank deposits,
h) in reverse repo/buy-sell-back transactions.

KDPW_CCP ensures that liquid net assets funded by equity that it holds are sufficient to cover the potential general business losses and that it is able to continue operations and provide relevant services as a going concern, as well as to achieve a recovery or an orderly wind down.

KDPW_CCP monitors on an on-going basis whether investment limits have been exceeded and prepares daily reports (asset exposure at the end of the day). Each investment decision of KDPW_CCP takes into account the total credit risk exposure to individual counterparties and ensures that this exposure remains within the acceptable limits set out in the *Investment Policy* as well as in the *Procedure specifying the rules for setting and managing concentration limits and actions in the event of exceeding the limits.*

Key consideration 5: *An FMI should maintain a viable plan for raising additional equity should its equity fall close to or below the amount needed. This plan should be approved by the board of directors and updated regularly.*

KDPW_CCP has the *Recovery Plan* in which appropriate toolkit of recovery measures is included. Such measures foresee *inter alia* replenishing equity and raising additional equity with the use of various instruments assuming involvement of different stakeholders of KDPW_CCP.

The recovery measures are not automatically activated in case of exceeding certain thresholds, also specified in the *Recovery Plan*. Instead, each time stress scenario occurs and thresholds are trespassed, the analysis is conducted by internal units of KDPW_CCP. After that the Management Board decides whether recovery measure is launched or not.

According to the provisions of 2021/23 Regulation, the *Recovery Plan* is reviewed by KDPW_CCP a least anually and in any case after any change to KDPW_CCP's legal or organisational structure or business or financial situation which should have a material effect on this plan. If needed, KDPW_CCP updates its *Recovery Plan.*

Assessment of principle:
Observed

Principle 16: Custody and investment risks

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on and delay in access to these assets. An FMI's investments should be in instruments with minimal credit, market, and liquidity risks.

According to its *Investment Policy* KDPW_CCP invests its own and its participants' assets in highly liquid financial instruments with minimal credit and market risk. The *Investment Policy* is consistent with EMIR Regulation and RTS 153/2013.

Key consideration 1: *An FMI should hold its own and its participants' assets at supervised and regulated entities that have robust accounting practices, safekeeping procedures, and internal controls that fully protect these assets.*

As mentioned in *Principle 15: General business risk)* KDPW_CCP may store or invest its own required capitals and assets contributed by members in:

a) on accounts with the National Bank of Poland (NBP),
b) in accounts with Bank Gospodarstwa Krajowego (BGK) and commercial banks,
c) in bills and bonds issued by the State Treasury or the NBP,
d) in debt instruments guaranteed by the State Treasury or the NBP, issued by other entities,
e) in bonds issued by the European Investment Bank (EIB) or the European Bank Bank for Reconstruction and Development (EBRD),
f) Treasury debt securities, which are denominated in euro, issued by countries other than the Republic of Poland of countries that are members of the European Union,
g) in unsecured bank deposits,
h) in reverse repo/buy-sell-back transactions.

KDPW_CCP may hold or invest the remaining equity:

a) on accounts with the National Bank of Poland (NBP),
b) on accounts with Bank Gospodarstwa Krajowego (BGK) and commercial banks,
c) in bills and bonds issued by the State Treasury or the NBP,
d) in debt instruments guaranteed by the State Treasury or the NBP, issued by other entities,
e) in bonds issued by the European Investment Bank (EIB) or the European Bank Bank for Reconstruction and Development (EBRD),
f) treasury debt securities that are denominated in euro, issued by other than the Treasury States, the Republic of Poland and countries that are members of the European Union,
g) unsecured bank deposits,
h) in reverse repo/ buy-sell-back transactions,
i) bonds and mortgage bonds issued by entities on the counterparty list.

KDPW_CCP may invest assets in instruments listed in points c-f provided that such instruments are kept:

- with a securities settlement system operator;
- with a central bank;

- with credit institutions which comply with prudential rules laid down in Directive 2013/36/EU or with third country credit institutions which are subject to prudential rules considered by the competent authorities to be at least as stringent as those laid down in the Directive, while at the same time protection of and quick access to such instruments are ensured while the institution's risk of default and risk of insolvency are limited.

Key consideration 2: *An FMI should have prompt access to its assets and the assets provided by participants, when required.*

KDPW_CCP mainly deposits securities collateral and highly liquid instruments in KDPW, or in NBP in case of cash. Securities are stored in KDPW on the basis of account agreement between KDPW_CCP and KDPW.

KDPW_CCP does not hold assets in custodian in another time zone or legal jurisdiction.

Key consideration 3: *An FMI should evaluate and understand its exposures to its custodian banks, taking into account the full scope of its relationships with each.*

KDPW_CCP does not have material exposures to custodian banks as it mainly deposits securities collateral and highly liquid instruments in KDPW, or in NBP in case of cash.

However, in the event of a deterioration of the financial condition of the counterparty with whom KDPW_CCP deposits assets, KDPW_CCP shall apply the appropriate risk management procedures as set out in the *Risk Management Policy.*

In addition, KDPW_CCP in its *Recovery Plan* takes into account a situation where a loss arises as a result of the declaration of default of a KDPW_CCP counterparty and properly addresses these consequences.

Key consideration 4: *An FMI's investment strategy should be consistent with its overall risk-management strategy and fully disclosed to its participants, and investments should be secured by, or be claims on, high-quality obligors. These investments should allow for quick liquidation with little, if any, adverse price effect.*

The KDPW_CCP *Investment Policy* sets out basis for its investment strategy. It is very conservative and compliant with EMIR Regulation and RTS 153/2013. The *Policy* defines the strict rules of investing cash deposited by members as well as own cash of KDPW_CCP. The investment rules of KDPW_CCP aim at ensuring the safety of assets managed by KDPW_CCP (i.e., assets of the clearing guarantee system operated by KDPW_CCP and KDPW_CCP own resources) and mitigating potential losses resulting from investing activities. In defining the rules, KDPW_CCP takes into account the need of maintaining the adequate liquidity of assets.

KDPW_CCP investments must be safe, i.e., made in financial instruments and with counterparties of low market and credit risk, and properly diversified.

The *Investment Policy* defines among others:

- the list of counterparties,

- the category/type/issuer of financial instruments,
- investment limits.

Information regarding KDPW_CCP's *Investment Policy* is available online via this link: KDPW_CCP's Investment Policy

The *Investment Policy* is the attachment to KDPW_CCP's *Liquidity Plan* which is also accompanied by documents such as the *Procedure for calculating and monitoring liquidity needs and the value of liquid funds held by KDPW_CCP S.A,* the *Counterparty and issuer credit risk assessment procedure* and the *Principles for determining the list of counterparties of KDPW_CCP.* All these documents set framework for KDPW_CCP's investment strategy.

KDPW_CCP ensures that its investments are secured by, or are claims on, high quality obligors by introduction of the *Counterparty and issuer credit risk assessment procedure* and the *Principles for determining the list of counterparties of KDPW_CCP.* The first document specifies the credit assessment methods, how the credit quality step is determined and the monitoring of credit quality assessments of credit institutions/issuers. The second document describes the principles and requirements for credit institutions to be included or that have already been included in the list of counterparties. In addition, the principles set out the obligation to monitor a credit institution's compliance with the requirements set out in these principles. According to both documents only entities that meet certain conditions can be deemed as counterparties of KDPW_CCP.

KDPW_CCP may keep or invest own capital and assets posted by members:

a) on accounts with the National Bank of Poland (NBP),
b) in accounts with Bank Gospodarstwa Krajowego (BGK) and commercial banks,
c) in bills and bonds issued by the State Treasury or the NBP,
d) in debt instruments guaranteed by the State Treasury or the NBP, issued by other entities,
e) in bonds issued by the European Investment Bank (EIB) or the European Bank Bank for Reconstruction and Development (EBRD),
f) Treasury debt securities, which are denominated in euro, issued by countries other than the Republic of Poland of countries that are members of the European Union,
g) in unsecured bank deposits,
h) in reverse repo/buy-sell-back transactions.

Investment activities must not generate FX risk. Investments are made in the same currencies in which collateral has been posted.

KDPW_CCP has adopted certain limits in order to manage concentration risk in relation to assets posted as collateral. This includes setting the following types of concentration limits:

- concentration limit for an individual issuer,
- concentration limit for a type of issuer,
- concentration limit for a type of asset,
- concentration limit for a type of collateral.

In addition the Management Board defines the level of each investment limit in a resolution. Keeping assets in accounts with the National Bank of Poland is subject to no limits.

The average maturity of a portfolio of debt instruments in aggregate, in which required KDPW_CCP own capital and assets posted by members are invested, must be no more than 2 years. Reverse repo/buy-sell-back trades in debt instruments are not included in the calculation of that limit.

KDPW_CCP recognizes wrong-way risk of two types. First is connected with the situation where a member tries to post collateral in its own or its affiliates securities. Second is where a clearing member that belongs to the banking sector has its stocks cleared by KDPW_CCP. To mitigate these risks KDPW_CCP does not allow posting collateral in a clearing member's own securities or its affiliates and assigns additional haircut charge for all securities that belong to the banking sector. In setting haircuts KDPW_CCP also takes into account credit and liquidity risk.

Assessment of principle:
Observed

Principle 17: Operational risk

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures, and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

KDPW_CCP manages operational risk through policies and procedures set out in the *Operational Risk Management Policy* and the *KDPW Group Business Continuity Planning System* both common for the KDPW Group. In addition, the general principles of risk management, separately for KDPW_CCP, are set out in the *Risk Management Policy.*

Key consideration 1: *An FMI should establish a robust operational risk-management framework with appropriate systems, policies, procedures, and controls to identify, monitor, and manage operational risks.*

KDPW_CCP has established a robust operational risk-management framework that is specified in its *Risk Management Policy* and documents common for the KDPW Group – the *Operational Risk Management Policy* and the *KDPW Group Business Continuity Planning System.* The documentation is subject to the approval of the Management Board of KDPW and the Management Board of KDPW_CCP.

The *Risk Management Policy* defines operational risk as the probability of financial loss or the incorrect or untimely fulfilment of obligations, resulting from inadequate or unreliable internal procedures, human errors and systems errors or from external events. Within operational risk, legal and compliance risks are identified. Risk identification is mainly based on operational events as well as self-assessment of risks in the organisational units.

In general, operational risk is managed in the KDPW Group with the use of comprehensive operational risk management model within which certain systems, policies and procedures have been specified. Operational risk management in the KDPW Group is an ongoing, constantly evolving process, which is implemented through the following activities carried out on the basis of the model described below:

- Conducting cyclical measurement, assessment and ongoing monitoring of changes in the level of risk.
- Maintaining a register of operational events, including financial losses incurred and so-called near misses, related to the disclosure of operational risks in the KDPW Group. The events included in the register in particular serve to estimate the parameters of risk frequency and severity.
- Dealing with risks, including risk mitigation, elimination, transfer (through insurance or another form of financing the consequences of risks) or acceptance of risks.
- Continuous monitoring and adaptation of the operational risk management model itself to changing needs and market conditions and continuous improvement based on the latest technical and scientific developments.

An operational risk management model is understood as a solution for drawing up a description of a selected aspect of reality (related to operational risk), identifying and approximating the cause-and-effect relationships present in it.

The operational risk management model can be broken down into following three-dimensions:

- 1 dimension – business process,
- 2 dimension – the risk factor,
- 3 dimension – place in the company's organisational structure.

The operational risk management process is an ongoing process with interrelated elements:

- setting the context – identifying the organisation's objectives and the general factors affecting its operations;
- risk assessment (identification, analysis and evaluation);
- risk treatment (reduction, elimination, transfer and acceptance);
- risk monitoring and review.

Within these processes the KDPW Group identifies following nine separate categories of operational risk factors:

- staff – the characteristics of the staff employed (absenteeism, turnover, level of motivation, etc.),
- process – factors determining the implementation of processes by staff (consistency of procedures, level of automation of processes, possibility of unauthorised action, etc.),
- dependency – dependencies between business processes within the KDPW Group and the impact of other institutions on the implementation of these processes,
- technology – technical infrastructure (IT systems, networks, telecommunications, etc.),
- information security – issues relating to cybersecurity and data protection,
- business continuity plan – the ability to carry out business processes in emergency situations,
- legal risk – risks related to the violation of legislation or to the breach of signed contracts, the risk of signing unfavourable contracts, etc,
- compliance and reporting – relate to the requirements imposed by risk control mechanisms, customer complaints procedures, etc,
- external factors – natural disasters, acts of terrorism, pandemic risks, etc.

The risk factors are analysed for their potential impact on the implementation of individual business processes. In order to determine the magnitude of risk for a given factor two risk parameters are defined: frequency and severity. Frequency is the probability with which an event may occur, whereas severity reflects an overall assessment of the events that may occur. Both parameters are mutually independent. The measure of operational risk is a combination of frequency and severity of risk. For each category of operational risk factor the KDPW Groups's internal procedures foresee methods for determining frequency and severity.

The Operational Risk Management Policy and other elements of the operational risk management strategy should be updated on an ongoing basis to take into account any material changes related to the KDPW Group's business, the business and legal environment, developments in technology as well as changes in operational risk management standards.

KDPW_CCP has adopted recruitment process that consists of four stages which foresees rigorous pre-employment screening in order to recruit high-calibre financial market experts. In addition, all employees of KDPW_CCP are subject to half-yearly evaluation. To minimise high personnel turnover, KDPW_CCP applies appropriate remuneration policy.

KDPW_CCP has adopted the *Staff Regulations* that apply to employees of KDPW_CCP. The document specifies rights and obligations of employees. It also includes a list of serious breaches by an employee of his or her basic employment duties within the meaning of the Labour Code that may result in the disciplinary dismissal of the employee. Such breaches refer to *inter alia* unethical behaviour and fraud.

The KDPW Group has developed the *Project management policy* that is also applied by KDPW_CCP. The document foresees introduction of uniform standards for the project organisation of tasks, and increasing the quality and efficiency of project management. It also indicates the actions to be taken in change management which is reacting when adversity occurs by requesting the Management Board to make appropriate changes to the project's scope, timetable or budget, including, in justified circumstances, requesting the suspension or the project budget, the suspension or abandonment of the project. The project manager, who is appointed each time a project is launched, is responsible, among other things, for change management.

In addition, the KDPW Group has adopted the *Principles of IT change management in the KDPW Group* that defines the rules applicable to the processes associated with the entire life cycle of an IT solution, in particular those related to its creation and development and modification during its operation. IT change management is understood as all the processes implemented in the KDPW Group to achieve efficiency and effectiveness in implementing changes to software and IT infrastructure. Change management is performed on the basis of adopted standard methods and procedures, the implementation and application of which are the responsibility of the relevant organisational units.

Key consideration 2: *An FMI's board of directors should clearly define the roles and responsibilities for addressing operational risk and should endorse the FMI's operational risk-management framework. Systems, operational policies, procedures, and controls should be reviewed, audited, and tested periodically and after significant changes.*

In general, as described in the *Principle 2: Governance)* the KDPW_CCP bodies and organisational units participating in the risk-management process are: the Supervisory Board, the Management Board, the Risk Committee, the Audit Committee, the CRO, the Risk Management Section and the CCO.

The Risk Management Section and the CRO are responsible for appropriate disclosure and reporting of information concerning risk management in order to enable KDPW_CCP's bodies and other organisational units to properly identify, assess and limit risk. Reporting is performed on regular and *ad hoc* basis. In addition, the CRO is responsible to immediately provide the Management Board of KDPW_CCP and the Supervisory Board of KDPW_CCP (the Audit Committee) with information on significant events affecting risk management.

Also, the key roles and responsibilities for operational risk management are - *the Operational Risk Management Policy* that is common for the KDPW Group. Under *the Operational Risk Management Policy* operational risk management is decentralised and remains the responsibility of the members of

the Management Board, management and all employees of the KDPW Group companies (in proportion to their competence and place in the organisation). In addition, the *Policy* has appointed the Operational Risk Committee that performs the coordination and advisory function in the operational risk management process in the KDPW Group. The Committee is *inter alia* responsible for reviewing the status of implementation of risk mitigation measures taken in units and organisational units. The *Policy* has also introduced the Technology Risk and Cyber Security Team that is responsible for assessment of specific risks connected with IT technology and ICT security.

The *Policy* also provides for the division of operational risk management responsibilities among the various organisational units in the KDPW Group.

The *Policy* and other elements of the operational risk management strategy is updated on an ongoing basis in order to take into account any significant changes related to the KDPW Group's operations, business and legal environment, technology development, as well as changes to operational risk management standards. Under the *Policy* a regular review of the operational risk management system is carried out by internal or external audit (control). Internal audit principles are set out in the *Policy of the internal control system at KDPW_CCP S.A.*

KDPW_CCP revises and tests its systems, policies and procedures with its clearing members in several ways. Before launching new products and systems KDPW_CCP performs testing and training sessions with its clearing members. As described in the *Principle 13: Participant-default rules and procedures)* under the *Procedure in the Event of Default of a KDPW_CCP Clearing Member* KDPW_CCP performs internal testing of the procedure once per quarter. Testing of the procedure with the participation of KDPW_CCP clearing members and other relevant infrastructure entities is conducted once per year or upon a significant amendment of the procedure. KDPW_CCP tests default of its clearing members, while KDPW_CCP clearing members are required to participate in the tests once a year. The remaining three tests are performed internally.

Key consideration 3: *An FMI should have clearly defined operational reliability objectives and should have policies in place that are designed to achieve those objectives.*

As indicated in the *Principle 3: Framework for the comprehensive management of risks)* the risk management is well founded in the KDPW_CCP *Risk Management Policy* document. The internal policy outlines the risk management processes by providing description of identified risks, setting risk tolerance levels, methods of measuring, monitoring and reporting and actions undertaken to mitigate the risks, as well as the structure of risk management.

Apart from that, under provisions of RTS 153/2013 KDPW_CCP applies common to the whole KDPW Group the *KDPW Group Business Continuity Planning System.* The document specifies general principles of business continuity management in the KDPW Group. The Business Continuity System is understood as a set of technical and organisational measures enabling, in the event of a major failure or disaster, the continuity of execution or the fastest possible recovery of the most important business processes to be maintained, while minimising the impact of the situation on the operations of the KDPW Group and other financial market institutions. The document also specifies operational reliability objectives and actions that are taken in order to achieve these objectives.

Key consideration 4: *An FMI should ensure that it has scalable capacity adequate to handle increasing stress volumes and to achieve its service-level objectives.*

In general, operational risk evaluation consists of comparing the measured risk level with the criteria adopted by the Management Boards of the KDPW Group companies defining the acceptable level of a given risk. Where the level or dynamics of a risk exceeds its acceptable size (risk limit), the Operational Risk Committee gives recommendations for taking risk mitigating actions.

In addition, before launching new product or service, each time KDPW_CCP performs testing what is described in key consideration 2.

At the moment of carrying out this assessment, in the last 12 months KDPW_CCP reached 99.00 % of the operational availability target for the core system, whereas the actual availability of the core system in the same period of time amounted to 100%.

KDPW_CCP's systems are subject to internal review performed by internal audit. Tests regarding business continuity are performed twice a year.

In case when operational capacity is neared or exceeded, appropriate measures described in the operational risk-management framework and/or the *Recovery Plan* are undertaken.

Key consideration 5: *An FMI should have comprehensive physical and information security policies that address all potential vulnerabilities and threats.*

KDPW_CCP has at its disposal a number of policies and processes that are aimed at addressing the plausible sources of physical vulnerabilities and threats on an ongoing basis. These policies are:

- the *Information Security Policy of the KDPW Group,* which defines general principles of information security management, the document is common for all companies in the KDPW Group,
- the *KDPW Group cyber-security management procedure,*
- the *Personal data security policy in KDPW_CCP S.A.,*
- the *Privacy Policy in KDPW_CCP S.A.*

The documents take into account most recent international and national standards for information security. They also incorporate to the functioning of the KDPW Group relevant provision, for example regarding data security policy. In case of cybersecurity management the *KDPW Group cyber-security management procedure* foresees cooperation with relevant national, including governmental and international bodies.

In addition, in order to provide high level of security the KDPW Group has in place physical access controls, security personnel and CCTV available at each floor. Access to certain premises is restricted to the dedicated staff.

Key consideration 6: *An FMI should have a business continuity plan that addresses events posing a significant risk of disrupting operations, including events that could cause a wide-scale or major disruption. The plan should incorporate the use of a secondary site and should be designed to ensure that critical information technology (IT) systems can resume operations within two hours following*

disruptive events. The plan should be designed to enable the FMI to complete settlement by the end of the day of the disruption, even in case of extreme circumstances. The FMI should regularly test these arrangements.

The KDPW Group has adopted the group-wide *KDPW Group Business Continuity Planning System* (BCP System) which specifies general principles of business continuity management in the KDPW Group. The purpose and scope of the BCP System derive from the analysis of the impact of potential disruptions on the operations of the companies belonging to the KDPW Group, based on the assessment of operational risk within the Group. Therefore, it introduces a set of technical and organisational measures to maintain - in the event of a major breakdown or disaster - continuity of execution or to restore as quickly as possible the most important business processes, while minimising the impact of the situation on the KDPW Group's operations and on other financial market institutions.

The document introduces additional organisational units which are responsible for actions foreseen within business continuity system – the Crisis Response Group, the Business Recovery Unit, and the Operational Group.

The BCP System has been prepared in the event of short-term or long-term emergencies of two types, which may be broadly described as follows:

1) an IT systems failure in the primary Group business site, which may result in the need to deploy back-up systems;
2) the Group's primary business site is incapacitated.

The first variant relates to a situation where at least one of the following elements is unavailable:

1) the central processing system within the meaning of IT solutions necessary to execute business processes;
2) communication systems processing the Group's primary business site;
3) external services provided locally (e.g. data transfer, telephone communication);
4) provision of essential utilities for systems to operate locally (e.g. electricity, water).

The second variant involves circumstances where the primary business site is inaccessible or cannot be used as the result of a threat of terrorist attack, fire or pollution.

Detailed procedures executed in the abovementioned situations are contained in the *Business Recovery Plan.* The BCP System excludes provision for global emergencies, such as natural disasters and disruptions in external services broadly affecting the whole system (e.g. national or global disruption in telecommunication), over which the KDPW Group has no control. In such circumstances, provisions of law, or procedures agreed with external service providers on the basis of separate measures should apply.

Moreover the BCP System does not cover situations involving disruptions in the execution of separate business processes, or minor technical problems, where the operational procedures of specific KDPW Group organisational units should apply instead.

A brief description of the document is available online via this link: Business Continuity Planning System

Details regarding the execution of all business processes covered by the BCP System are described in the relevant operating procedures, which set out the rules for communication with the relevant stakeholders.

The BCP System sets a Recovery Time Objective (RTO) for critical processes at 2 hours, which is the maximum time from the occurrence of a contingency until the process is resumed, irrespective of the recovery location (KDPW Group head office, KDPW Group business recovery site or other location outside Group head office).

The recovery of support processes should take place before the end of the relevant business day.

The *Business Recovery Plan* contains detailed rules for the recovery of critical and support processes.

In order to ensure business continuity in the event of emergencies, KDPW Group retains its own business recovery site, which is located outside the Warsaw city limits, in order to prevent situations where the primary business site and the business recovery site should both become inaccessible. The companies belonging to the KDPW Group use this site.
In order to ensure the continuity of business processes of the companies belonging to the KDPW Group, the business recovery site has been equipped in particular with the following:

1) back-ups of all IT production systems;
2) sufficient number of staff posts corresponding to the designation of company business processes being realised;
3) sufficient technical and office equipment;
4) a fixed telecommunication link, owned by KDPW, connected with the KDPW Group primary business site and holding sufficient capacity to transfer all production data online;
5) fixed links access to telecom operator services;
6) its own telephone exchange;
7) its own emergency power supply;
8) sufficient social facilities.

Comprehensive BCP System tests which check the readiness of the KDPW Group for operation in a crisis should be performed at least twice per year, including tests in co-operation with other financial market institutions performed at least once per year. Moreover, every significant change in the area of business activities of the companies belonging to the KDPW Group, or of the business environment, and all major changes relating to technology within the IT environment will require testing of the relevant BCP System to be performed.

The BCP System documentation should be reviewed and verified. The review is conducted at least once a year, or whenever any major changes appear in KDPW Group. The review of the BCP System generally incorporates other elements related to the operational risk management system of the KDPW Group.

The results of tests and review of BCP System documentation, the publication of standards as well as implemented legislation, performed operational risk analyses, and analyses of the impact that operational changes taking place in the KDPW Group and its business environment may have on the level of the Group's operational security, all form the basis for measures to improve and develop the BCP System, ensuring that it meets the required standard of efficiency.

In the event of an emergency requiring the *Business Recovery Plan* to be put into effect an additional review is required in order to evaluate:

1) the correct identification and classification of the event and its effect on the business operations of the KDPW Group;
2) whether the Crisis Response Group is performing its duties in the correct manner and all other processes are executed in a crisis;
3) whether the goals of the BCP System have been effectively met, including recovery time;
4) the skills of the employees carrying out their responsibilities as part of the BCP System.

A report from a review of the evaluation procedure forms the basis for potential amendments to the general principles of the BCP System or for taking the necessary remedial action.

Key consideration 7: *An FMI should identify, monitor, and manage the risks that key participants, other FMIs, and service and utility providers might pose to its operations. In addition, an FMI should identify, monitor, and manage the risks its operations might pose to other FMIs.*

KDPW_CCP has outsourced services critical to its operations to KDPW. For both companies the *KDPW Group Business Continuity Planning System* applies.

Assessment of principle:
Observed

Principle 18: Access and participation requirements

An FMI should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.

KDPW_CCP applies objective and publicly available participation criteria based on risk analysis which enable a non-discriminatory and open access to its services. At the same time, KDPW_CCP sets reasonable participation requirements which provide for the safety and efficiency of its activities and the markets it serves.

Key consideration 1: *An FMI should allow for fair and open access to its services, including by direct and, where relevant, indirect participants and other FMIs, based on reasonable risk-related participation requirements.*

The membership requirements are specified in relevant rulebooks of KDPW_CCP – the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading).

The following legal entities may become KDPW_CCP members for organised and OTC clearing:

1) investment firms,
2) domestic banks,
3) foreign investment firms,
4) financial institutions other than those referred to in point 1-3,
5) entities domiciled outside the Republic of Poland, which perform activities relating to the clearing of transactions executed as part of financial instrument trading,
6) companies managing a clearing house.

The catalogue of legal entities is closed and reflects current provisions of Polish law, namely the Act on Trading in Financial Instruments of 29 July 2005 (as amended).

KDPW_CCP also foresees following types of participation for organised and OTC clearing:

1) general clearing member (for organised trading – representative in securities trading and representative in derivatives market),
2) individual clearing member,
3) clearing house (only in case of OTC clearing),
4) non-clearing member.

Under the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading) the members with the status of clearing member are required to meet the appropriate material, technical and financial conditions. Meeting the appropriate financial conditions means that the member maintains the adequate level of Tier I capital and meets the precautionary requirements which differ depending on type of clearing member.

Meeting the appropriate material and technical conditions means that the member maintains technical and technological equipment which allows the member to connect with the IT system used by KDPW_CCP to operate the OTC system ensuring that documents can be safely sent to and received from that system in electronic form.

A clearing member is obliged to meet the prudential requirements laid down in CRR and in particular requirements for own funds within the meaning of CRR as well as individual measures complementing such requirements which have been applied to it by the competent supervisory authority which supervises its operation according to CRR as well as other relevant legal provisions applicable in the state of seat of the clearing member or where a seat is not required to be established, then its head office.

The criteria are based on reasonable risk-related requirements and allow for fair and open access to KPW_CCP's services.

KDPW_CCP's regulations also presume conditions needed to be fulfilled after an entity is granted participation status in KDPW_CCP.

These conditions for organised trading are:

- make a contribution to the clearing guarantee fund;
- submit a written declaration on admission to the relevant guarantee fund and make a contribution to this fund;
- make a contribution to the on-demand lending guarantee fund;
- pay an initial deposit;
- pay an initial deposit for loans;
- submit a written power of attorney or KDPW_CCP to:
    - close the member's derivatives positions for which the member holds clearing member status, in instances specified in the *Rules of Transaction Clearing* (organised trading);
    - receive and submit on its behalf declarations of will on matters concerning the transfer within the transaction clearing liquidity guarantee system of positions arising from transactions executed by an entity acting with the participation type of non-clearing member, represented by the member in the clearing system, or executed on the account of such entity, together with the collateral of such positions posted as initial margin, and perform actions referred to in § 69a - § 69c of the *Rules of Transaction Clearing* (organised trading) in the cases described in the rules;
- submit a written the power-of-attorney for KDPW_CCP to execute securities sale and purchase orders on the account of the member within the scope necessary to perform obligations arising from the clearing of transactions for which the member holds the status of clearing member;
- open a clearing account in the clearing system relevant for the given participation type;
- deliver a declaration, where the member commits to ensure the submission of transaction reports or which designates KDPW_CCP as the entity to submit transaction reports to the relevant trade repository where the obligation to submit transaction reports to a trade repository results from relevant regulations.

Conditions for OTC trading are:

- make an initial contribution to the OTC guarantee fund
    - the amount of the contribution to the basic resource of the OTC guarantee fund shall not be lower than PLN 1 million,

  - the member's first contribution to the basic resources of the OTC guarantee fund may only be paid in cash,
  - the first contribution should be paid no later than two days before the date of starting the member's activities in the OTC clearing system.
- pay an initial deposit – PLN 1 million
  - the initial deposit level according to Resolution No. 19/12 of the KDPW_CCP S.A. Management Board dated 19 December 2012.
- open a clearing account in the OTC clearing system,
- deliver a written power of attorney for KDPW_CCP to:
  - in derivative instruments on the member's account for which the member holds the status of clearing member, in instances described in the rules.
  - receive and submit on its behalf declarations of will on matters concerning the transfer within the transaction clearing liquidity guarantee system of positions arising from transactions executed by an entity acting with the participation type of non-clearing member, represented by the member in the clearing system, or executed on the account of such entity, together with the collateral of such positions posted as initial margin, and perform actions referred to in § 110a - § 110c in the cases described in the *Rules of Transaction Clearing* (OTC trading),
- deliver a written power of attorney for KDPW_CCP to issue buy and sell securities concerned by a transaction on the account of the member within the scope necessary to perform obligations arising from the clearing of transactions for which the clearing member is liable in the OTC clearing system,
- deliver a declaration where the member commits to submit transaction reports or which designates KDPW_CCP as the entity to submit transaction reports to the relevant trade repository where the obligation to submit transaction reports to a trade repository results from relevant regulations.

Key consideration 2: *An FMI's participation requirements should be justified in terms of the safety and efficiency of the FMI and the markets it serves, be tailored to and commensurate with the FMI's specific risks, and be publicly disclosed. Subject to maintaining acceptable risk control standards, an FMI should endeavour to set requirements that have the least-restrictive impact on access that circumstances permit.*

As specified in key consideration 1, participation criteria are risk-based with the exception of the catalogue of legal entities that is closed and that reflects current provisions of the Polish law, namely the Act on Trading in Financial Instruments of 29 July 2005 (as amended). The participation requirements are also subject to an internal KDPW_CCP assessment what is regulated in the *Risk Management Policy.*

The participation requirements are designed in such a way as to mitigate the risks that KDPW_CCP faces. They also reflect specifics of the Polish market by reflecting current national provisions that limit the list of entities allowed for being clearing member.

Not all types of members are subject to the same access criteria. As specified in key consideration 1, one criterium – financial condition, so the required level of Tier 1 capital held by member – differs

depending on the type of member. In addition, in case of organised trading, the capital requirement depends also on the type of legal entity.

Information regarding participation criteria, including restrictions in participation, are publicly disclosed on KDPW_CCP's website:

Membership requirements – organised trading

Membership requirements – OTC trading

The Rules of Transaction Clearing and the Detailed Rules of Transaction Clearing (organised trading)

The Rules of Transaction Clearing and the Detailed Rules of the OTC Clearing System (OTC trading)

The participation criteria are part of credit risk management. Under the *Risk Management Policy* risk management framework is subject to validation by a qualified and independent entity at least once a year. KDPW_CCP reviews models, methodologies, market data, rules, and procedures at least once a year in order to ensure their appropriateness and adequacy. The revision of the participation criteria is conducted within a review of the risk management framework.

Key consideration 3: *An FMI should monitor compliance with its participation requirements on an ongoing basis and have clearly defined and publicly disclosed procedures for facilitating the suspension and orderly exit of a participant that breaches, or no longer meets, the participation requirements.*

KDPW_CCP has outsourced to KDPW monitoring of members' ongoing compliance. KDPW monitors compliance with financial requirements by clearing members what has been regulated in outsourcing agreement between KDPW_CCP and KDPW. The details regarding this service have been set out in this document.

Under the relevant rulebooks – the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading) – KDPW_CCP may refrain from carrying out the participation agreement if:

- the member threatens the safety of trading or the proper operation of the clearing system,
- the member is in arrears with the payment of any fees due according to the Table of Fees for at least two full payment periods, where such periods need not be consecutive, and no complaint handling procedure has been opened on the matter or, if opened, it has been closed and the decision made in the procedure is final, or
- despite the levying of the fee the member has not remedied the condition of breach or taken an action or inaction defined by the Management Board of KDPW_CCP in order to prevent any further breach or has taken it inadequately,
- the clearing member consistently and systematically fails to deliver securities to the securities settlement system operated by the settlement institution, as referred to in Article 7(9) CSDR, being responsible for the suspension of settlement of transactions due to a shortage of securities (in case of organised trading), or
- another breach occurs and KDPW_CCP has not terminated the participation agreement effective immediately.

The suspension of participation is for a specified period, no longer than 6 months. The previous member status shall be restored on the basis of a decision taken by the Management Board of KDPW_CCP, by way of resolution, before or on expiry of the aforementioned period, unless a different decision concerning further participation has been taken before the expiry of that period.

Participation may be suspended with regard to all of the member's activities under the participation agreement or with regard to only some activities. The decision to suspend participation shall specify conditions needed to be met in order for the previous member status to be restored.

Both rulebooks also regulate the termination of the participation agreement.

As for organised trading according to § 77a of the *Rules of Transaction Clearing* (organised trading) a participation agreement may be terminated:

1. on request of a clearing member;
2. by agreement of the parties;
3. according to a unilateral declaration made by KDPW_CCP in the procedure referred to in § 77b (cancellation of participation).

According to § 15a sub-para. 4 of the *Rules of Transaction Clearing* (organised trading), a clearing member ceases to perform obligations arising from the clearing of transactions made by another entity upon the termination or amendment of the participation agreement to that extent.

The terms and conditions of terminating a participation agreement are set out in detail in the *Rules of Transaction Clearing* (organised trading) (Chapter V).

In case of OTC trading according to § 111 of the *Rules of Transaction Clearing* (OTC trading), a participation agreement may be terminated:

1. on request of a clearing member, effective two weeks from the date of the request, subject to performance of obligations under open positions or balances arising from the clearing of transactions registered in clearing accounts maintained for a member;
2. by agreement of the parties;
3. on request of KDPW_CCP, effective immediately, in case of occurrence of an event of default.

According to § 113 of the *Rules of Transaction Clearing* (OTC trading), in case of occurrence of an event of default on the part of the defaulting member, KDPW_CCP is entitled to:

- terminate the participation of the defaulting member;
- refrain from carrying out the participation agreement concluded with the defaulting member in the procedure defined in § 121 of the *Rules of Transaction Clearing* (OTC trading);
- refuse to accept further transactions for clearing where the defaulting member would participate in clearing unless another member holds the status of clearing member for such transactions and has been designated for their clearing;

Credits of KDPW_CCP and the member whose participation has been cancelled, arising from the clearing of transactions accepted for clearing in the clearing system, to which the member is a clearing counterparty, as well as in respect of its participation in such system, shall be netted by KDPW_CCP according to the rules and to resolutions of the Management Board of KDPW_CCP adopted under the

rules. As a result of netting of mutual credits, KDPW_CCP shall have credits or debits, respectively, due to or from the member in the amount outstanding after the performance of all actions aimed at meeting the liabilities of the member in the system. Credits shall be cancelled at the instant that KDPW_CCP performs such netting and registers its result in its systems.

4. on request of a clearing member, effective immediately, in case of occurrence of any of the following events:
   - KDPW_CCP has not made a clearing payment or replacement payment within 45 calendar days after the day on which KDPW_CCP becomes obliged to make the payment to the clearing member (§ 111 subpara. 1 point 4 letter a) of the *Rules of Transaction Clearing* (OTC trading),
   - bankruptcy of KDPW_CCP has been declared or a motion for bankruptcy has been dismissed,
   - the Management Board or the liquidator of KDPW_CCP has filed a motion for declaration of bankruptcy of KDPW_CCP,
   - an entity which is a creditor of KDPW_CCP has filed a motion for declaration of bankruptcy of KDPW_CCP,
   - KDPW_CCP is in liquidation,
   - the Polish Financial Supervision Authority has decided to cancel the authorisation given to KDPW_CCP for the provision of clearing services as a CCP and the time limit for appeal measures has expired or such measures have been exhausted.

Both documents, the *Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing* (OTC trading), are publicly available on KDPW_CCP's website.

Assessment of principle:
Observed

Principle 19: Tiered participation requirements

An FMI should identify, monitor, and manage the material risks to the FMI arising from tiered participation arrangements.

KDPW_CCP's internal rules specify the types of participation arrangements in KDPW_CCP. Tiered participation arrangements have been regulated in relevant rulebooks of KDPW_CCP.

Key consideration 1: *An FMI should ensure that its rules, procedures, and agreements allow it to gather basic information about indirect participation in order to identify, monitor, and manage any material risks to the FMI arising from such tiered participation arrangements.*

According to its rulebooks, KDPW_CCP concludes participation agreement only with clearing member which as described in *Principle 18: Access and participation requirements)* can be classified as:

1) general clearing member (for organised trading – representative in securities trading and representative in derivatives market),
2) individual clearing member,
3) clearing house (only in case of OTC clearing),
4) non-clearing member.

As for organised trading, under the *Rules of Transaction Clearing* (organised trading) individual clearing member clears trades transactions executed by that participant in the regulated market, alternative trading system or negotiated lending system, on their own account, or the account of a client while general clearing member clears trades executed by another entity. . In case of OTC trading according to the *Rules of Transaction Clearing* (OTC trading) only general clearing member is liable in the OTC clearing system for transactions concluded also by another entity on its own account and then confirmed on an electronic platform.

Clients of clearing members can also obtain status of non-clearing member (both organised and OTC trading). For organised trading, eligible as a member with the member type of non-clearing member shall only be an entity which has a relevant member in the clearing system holding the member type of general clearing member – representative in trading in securities or general clearing member – representative in the derivatives market through which it participates in transaction clearing. As for OTC trading, a member with the participation type of non-clearing member shall only be an entity which has a relevant member in the clearing system holding the member type of general clearing member through which it participates in transaction clearing.

In case of organised trading KDPW_CCP provides a system in which clearing members enter information about their clients. For that purpose, clearing member applies to KDPW_CCP for NKK (client classification number). NKK is a basic and indispensable attribute of a clearing account assigned to a client and describing his basic features. The client's classification number is assigned following an instruction for NKK opening at a clearing member's request. The process runs automatically by means of sending an XML message to the KDPW_CCP system (instruction related to NKK – acmt.rqc.001.03). There is one collateral account (PB) attached to each NKK. Each NKK can be enriched with an additional attribute: direct client or indirect client. Clearing members update this information depending on their needs.

Therefore, with this solution KDPW_CCP has access to information regarding institutional clients that are served by general clearing member (both representative in securities trading and in derivatives market) in organised trading. KDPW_CCP also gathers information regarding non-clearing members. For other clients such information is not collected.

As KDPW_CCP had adopted a complex structure of accounts the full chain between clients, clearing members and KDPW_CCP is maintained. In organised trading, each client has an account at an individual level and there is a complete picture of exposure, risk, deposits and collateral. Collateral is deposited in individual customers' accounts. As for OTC market every client is also required to have an open account what enables KDPW_CCP to monitor clients' exposures and the risks associated with them. The monitoring is conducted on ongoing, real-time basis.

KDPW_CCP does not identify material risks connected with tiered participation arrangements.

More information regarding tiered participation arrangements is obtainable via link below:
Indirect clearing – organised trading

Key consideration 2: *An FMI should identify material dependencies between direct and indirect participants that might affect the FMI.*

KDPW_CCP is able to identify material dependencies between clearing members and clients thanks to its complex structure of accounts, which has been described in the *Principle 14: Segregation and portability)* and key consideration 1 within the *Principle 19: Tiered participation requirements)*

Key consideration 3: *An FMI should identify indirect participants responsible for a significant proportion of transactions processed by the FMI and indirect participants whose transaction volumes or values are large relative to the capacity of the direct participants through which they access the FMI in order to manage the risks arising from these transactions.*

As described in key consideration 1, KDPW_CCP is able to identify such members thanks to its complex system of accounts.

For KDPW_CCP non-clearing member is a key indirect member. NCM is recognised and KDPW_CCP gathers all data regarding this client, i.e. its exposure, deposit, collateral, etc. KDPW_CCP may provide a porting service to NCM.

Key consideration 4: *An FMI should regularly review risks arising from tiered participation arrangements and should take mitigating action when appropriate.*

KDPW_CCP manages and mitigates risks stemming from tiered participation arrangements within the general risk management procedures specified in the *Risk Management Policy.*

Assessment of principle:
Observed

Principle 20: FMI links

An FMI that establishes a link with one or more FMIs should identify, monitor, and manage link-related risks.

KDPW_CCP has established a link with KDPW within the KDPW Group.

Key considerations 3-6 and 9 are not applicable to CCPs and hence, they are not described below.

Key consideration 1: *Before entering into a link arrangement and on an ongoing basis once the link is established, an FMI should identify, monitor, and manage all potential sources of risk arising from the link arrangement. Link arrangements should be designed such that each FMI is able to observe the other principles in this report.*

KDPW_CCP has established a link with KDPW. Both companies belong to the KDPW Group. KDPW is a shareholder of KDPW_CCP holding 100% of the votes at the General Meeting of KDPW_CCP. It operates as central securities depository. KDPW is authorised in accordance with the CSDR and is supervised by PSFA in this respect; it is supervised by ESMA in connection with the registration of the trade repository and approved reporting mechanism (ARM).

In general, as a part of the KDPW Group, the shareholder pursues a long-term and stable policy towards KDPW_CCP aiming to ensure business continuity and the proper functioning of KDPW_CCP in the provision of services and the conduct of its business. The Group's structure and the organisational arrangements adopted provide a sound framework for comprehensive risk management and allow synergies to be maintained in the management of the Company and added value to be derived from complementary structures within the Group's companies ensuring consistent implementation of the strategy.

Acting in accordance with Article 35 of EMIR, KDPW_CCP has outsourced operational functions, services and activities to KDPW.

Therefore, main risk arising from this link is operational risk. It has been broadly addressed in the operational risk management framework, i.e. the *Operational Risk Management Policy* and the *KDPW Group Business Continuity Planning System* both common for the KDPW Group. Main assumptions of risk management in KDPW_CCP are also outlined in the *Risk Management Policy.* More information regarding operational risk is included in the *Principle 17: Operational risk).*

In addition, KDPW_CCP has adopted the *Recovery Plan* in which all risks which KDPW_CCP faces or may face are taken into account. The plan includes stress scenarios that take into account linka with other entities. Several of the scenarios assume the occurrence of default and non-default events involving related entities, which could result in financial losses or even the inability of KDPW_CCP to provide critical functions. The plan also includes a list of indicators that are used for risk monitoring. Exceeding the relevant levels of these indicators signals the need to analyse the consequences of the observed events and may constitute a trigger to launch recovery phase. The *Recovery Plan* also includes a list of recovery measures that can be used to address the results of occurrence of default and non-default events.

Key consideration 2: *A link should have a well-founded legal basis, in all relevant jurisdictions, that supports its design and provides adequate protection to the FMIs involved in the link.*

KDPW, with which KDPW_CCP has a link, was established in Poland. The legal agreements that are part of this link have been concluded under the applicable law, namely EMIR regulation and the Act on Trading in Financial Instruments of 29 July 2005 (as amended).

In addition, as both companies belong to the same capital group, their relationship is regulated by provisions of the Code of Commercial Companies.

Key consideration 7: *Before entering into a link with another CCP, a CCP should identify and manage the potential spill-over effects from the default of the linked CCP. If a link has three or more CCPs, each CCP should identify, assess, and manage the risks of the collective link arrangement.*

At the moment KDPW_CCP has no links with other CCPs, therefore, this key consideration is not applicable.

Key consideration 8: *Each CCP in a CCP link arrangement should be able to cover, at least on a daily basis, its current and potential future exposures to the linked CCP and its participants, if any, fully with a high degree of confidence without reducing the CCP's ability to fulfil its obligations to its own participants at any time.*

At the moment KDPW_CCP has no links with other CCPs, therefore, this key consideration is not applicable.

Assessment of principle:
Observed

Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

KDPW_CCP maintains an operating structure that addresses the needs of its clearing members and other stakeholders. Its operation is subject to periodic review in terms of its efficiency and effectiveness.

Key consideration 1: *An FMI should be designed to meet the needs of its participants and the markets it serves, in particular, with regard to choice of a clearing and settlement arrangement; operating structure; scope of products cleared, settled, or recorded; and use of technology and procedures.*

KDPW_CCP serves its clearing members (national and international) that are active on Polish capital market. As a member of KDPW Group, KDPW_CCP actively cooperates with key institutions of Polish financial market, i.e. KDPW, Warsaw Stock Exchange, BondSpot.

KDPW_CCP is also a member of EACH (the European Association of CCP Clearing Houses) and CCP12 (the Global Association of Central Counterparties) and actively participates in the work of the working committees of both associations. KDPW_CCP is also a member of ISDA (International Swaps and Derivatives Association). KDPW_CCP participates in the works of national working groups in the field of Polish capital market development, Treasury bonds market, payment and settlement systems. This activity ensures that KDPW_CCP has up-to-date information on the international and domestic financial market what positively affects the quality of services provided by KDPW_CCP.

KDPW_CCP operates considering opinion and advice provided by its clearing members represented by KDPW_CCP Risk Committee. Clearing members actively participate in various workshops before introducing by KDPW_CCP changes to its systems, widening service offer. Clearing members can provide KDPW_CCP with feedback any time which is then gathered by CCP. KDPW_CCP is always open to suggestions from members, taking them into account as far as possible. KDPW_CCP adapts also its product range and services to market needs, such as for example asset management.

KDPW_CCP has a clear and transparent complaints system. The relevant complaint forms are available via this link: Document templates for clearing members

KDPW_CCP's internal organisation is designed and maintained as cost efficient. KDPW_CCP uses widely used standard clearing and settlement procedures. Some services are outsourced to KDPW what allows for cost efficiency.

KDPW_CCP updates its website (public and section for members) making sure that all stakeholders are provided with reliable and up-to-date information.

Key consideration 2: *An FMI should have clearly defined goals and objectives that are measurable and achievable, such as in the areas of minimum service levels, risk-management expectations, and business priorities.*

KDPW_CCP's goals and objectives are clearly defined in its Strategy for years 2020-2024 and are publicly available on its website under this link: KDPW_CCP's strategy

KDPW_CCP's strategic goals are:

- to enhance the competitive edge and complementarity of services provided by KDPW_CCP S.A. and to maintain their high quality including the clearing of diverse classes of assets – strategic goal for organised trade,
- to expand the scale of KDPW_CCP S.A. OTC derivatives clearing and services combined with effective risk management aiming to mitigate systemic risk – strategic goal for OTC trade.

Both strategic goals are comprised of the following specific goals.

Strategic goals under the key strategic goal for organised trade:

- GOAL 1: To expand the scale of cleared financial instruments and to extend the scope of clearing to new asset classes;
- GOAL 2: To improve the accessibility and competitive edge of KDPW_CCP S.A. for Polish and foreign clearing members;
- GOAL 3: To prepare KDPW_CCP S.A. for the provision of services on European organised markets.

Strategic goals under the key strategic goal for OTC trade:

- GOAL 1: To implement an IT system in KDPW_CCP S.A., developed in-house by the KDPW Group, for OTC derivatives clearing and services;
- GOAL 2: To increase KDPW_CCP S.A.'s share of OTC derivatives clearing and to diversify revenue by clearing bilateral trade in PLN and EUR on the Polish market;
- GOAL 3: To enhance the importance of KDPW_CCP S.A. as a provider of PLN and EUR clearing services to foreign entities.

KDPW_CCP also fulfils common strategic goal within KDPW Group which is to leverage and strengthen synergies and to maintain high quality of IT infrastructure in the KDPW Group aiming to improve effective operation of the business lines faced with technological challenges while protecting the profile of an infrastructure institution.

In order to fulfil these goals, KDPW_CCP's Management Board appoints projects to be implemented within the framework of activity plan for the calendar year concerned, on the basis of the objectives and actions set out in the Strategy, and of the analyses of changes in the external environment or regulatory changes, as well as of the demand for new services and products expressed by market members or relevant stakeholders. The performance of projects is measured by appropriate indicators, depending on the type of project. These are economic indicators or non-financial aspects, related to the development of post-transaction infrastructure and its impact on Polish market members and tasks resulting from the needs of stakeholders. Progress against goals and objectives are included in the publicly available Annual Reports.

Investment objectives of KDPW_CCP are specified in the *Investment Policy.* Risk management objectives are specified in the *Risk Management Policy.* Both investment objectives and risk management objectives stem from the legal requirements imposed on KDPW_CCP by EMIR regulation.

Key consideration 3: *An FMI should have established mechanisms for the regular review of its efficiency and effectiveness.*

KDPW_CCP has established following mechanisms for the regular review:

- internal control system,
- compliance function,
- internal audit system.

Internal audit principles are set out in the *Policy of the internal control system at KDPW_CCP S.A.*

In addition, the Management Board and the Audit Committee are responsible for monitoring the activities of the designated bodies. More information regarding responsibilities of the Management Board and the Committee is included in the *Principle 2: Governance).*

The internal regulations of the units indicated specify the processes and metrics as well as frequency to evaluate efficiency and effectiveness of KDPW_CCP.

Assessment of principle:
Observed

Principle 22: Communication procedures and standards

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement, and recording.

KDPW_CCP uses internationally accepted communication procedures, standards and proprietary messaging.

Key consideration 1: *An FMI should use, or at a minimum accommodate, internationally accepted communication procedures and standards.*

KDPW_CCP uses both internationally accepted communication procedures and standards and proprietary messaging.

For payments, KDPW_CCP uses SWIFT MT standards for all payment instructions. For securities and collateral settlement, KDPW_CCP uses proprietary messaging. For clearing and reporting, KDPW_CCP uses SWIFT ISO 20022 messages combined with proprietary messaging. As for OTC derivatives KDPW_CCP also uses FpML® standard.

Information regarding IT tools used by KDPW_CCP are obtainable via links below:

IT tools - organised trading

IT tools - OTC trading

KDPW_CCP also communicates planned changes with regards to its IT systems and messaging:

XML messages – changes – organised trading

XML messages – changes – OTC trading

Assessment of principle:
Observed

Principle 23: Disclosure of rules, key procedures, and market data

An FMI should have clear and comprehensive rules and procedures and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees, and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

KDPW_CCP has adopted clear and comprehensive rules and procedures. KDPW_CCP as a CCP authorised under EMIR is obliged by this regulation to publicly disclose key rules, procedures and information on its website. The competent authority has access to all documents and if required, it is notified about amendments to them.

Key consideration 1: *An FMI should adopt clear and comprehensive rules and procedures that are fully disclosed to participants. Relevant rules and key procedures should also be publicly disclosed.*

KDPW_CCP rules and procedures are defined in following documents: the *Statue of KDPW_CCP*, KDPW_CCP rulebooks - the *Rules of Transaction Clearing,* the *Detailed Rules of Transaction Clearing* (organised trading) and the *Rules of Transaction Clearing,* the *Detailed Rules of the OTC Clearing System* (OTC trading). Apart from this, rules for each KDPW_CCP's clearing guarantee fund are published. All these documents are written in a clear and comprehensive way. They are available in Polish and English language versions and publicly available on KDPW_CCP's website via these links:

The Statue of KDPW_CCP

The Rules of Transaction Clearing (organised trading)

The Detailed Rules of Transaction Clearing (organised trading)

The Rules of Transaction Clearing (OTC trading)

The Detailed Rules of the OTC Clearing System (OTC trading)

The Rules of the Clearing Guarantee Fund (organised trading)

The Rules of the WSE BondSpot ATS Guarantee Fund

The OTC Guarantee Fund Rules (OTC trading)

The *Statue of KDPW_CCP* specifies in particular the legal basis of KDPW_CCP's business activity as a joint-stock company, enlists KDPW_CCP's business activity, functioning of its bodies, its capital and shareholders. In addition, it includes provisions regarding the use of KDPW_CCP's dedicated resources in case of default, non-default events or in case of combination of thereof.

The *Rules of Transaction Clearing* and accompanying *Detailed Rules of Transaction Clearing* (organised trading) define the operating principles of the clearing system managed by KDPW_CCP for transactions executed on regulated markets or in alternative trading systems in financial instruments registered in the securities depository managed by the Central Securities Depository of Poland (KDPW) and derivatives admitted to organised trading, and executed within the clearing liquidity guarantee system

for such transactions organised by KDPW_CCP. The documents also specify provisions in following areas:

a) participation,
b) transaction clearing,
c) fees,
d) termination of participation,
e) measures for maintaining order and discipline,
f) complaint handling procedure.

The *Detailed Rules of Transaction Clearing* (organised trading) set out the detailed rules of operation of the clearing system within the scope laid down in the *Rules of Transaction Clearing.*

The *Rules of Transaction Clearing* and accompanying *Detailed Rules of the OTC Clearing System* (OTC trading) define the operating principles of the OTC clearing system organised by KDPW_CCP S.A. for transactions designated in the rules, executed outside organised trading. The documents specify provisions in following areas:

a) status and responsibilities of KDPW_CCP S.A.,
b) participation,
c) OTC transaction clearing system,
d) termination,
e) measures for maintaining order and discipline,
f) fees,
g) complaint and handling procedure.

The *Detailed Rules of the OTC Clearing System* set out the detailed rules of operation of the OTC clearing system within the scope laid down in the *Rules of Transaction Clearing.*

More detailed procedures are also specified in the internal regulations of KDPW_CCP that are not publicly available. Nevertheless, some key information regarding these procedures is publicly available.

The documentation also specifies procedures applied in case of non-routine, though foreseeable, events, such as for example: default and non-default events.

KDPW_CCP publishes on its website resolutions introducing changes to the relevant rulebooks. They are obtainable via links below:

Resolutions – organised trading

Resolutions – OTC trading

Key consideration 2: *An FMI should disclose clear descriptions of the system's design and operations, as well as the FMI's and participants' rights and obligations, so that participants can assess the risks they would incur by participating in the FMI.*

KDPW_CCP publishes on its website relevant rulebooks and accompanying documents - the *Rules of Transaction Clearing,* the *Detailed Rules of Transaction Clearing* (organised trading) and the *Rules of*

Transaction Clearing, the *Detailed Rules of the OTC Clearing System* (OTC trading). It also publishes extensive information regarding its default waterfall (broken down into organised trading and OTC trading), risk management framework (estimation of initial margin obligation) and services. All these documents specify KDPW_CCP's system and operations.

KDPW_CCP's rulebooks, in turn, set out the rights and obligations of KDPW_CCP and its clearing members.

Key consideration 3: *An FMI should provide all necessary and appropriate documentation and training to facilitate participants' understanding of the FMI's rules and procedures and the risks they face from participating in the FMI.*

KDPW_CCP provides an extensive description of its business activity that allows for understanding its rules, procedures and risks. It also provides for information regarding membership requirements.

KDPW_CCP provides on its website appropriate documentation for its members that is obtainable via following links:

Document templates – organised trading

Document templates – OTC trading

KDPW_CCP also offers training sessions for its members in case of introduction of changes or new products.

All relevant information is included on KDPW_CCP's website. A document describing information that is disclosed on KDPW_CCP's website is accessible via this link: Information disclosure policy

In case clearing member needs clarification on certain issues, it directly addresses KDPW_CCP.

Key consideration 4: *An FMI should publicly disclose its fees at the level of individual services it offers as well as its policies on any available discounts. The FMI should provide clear descriptions of priced services for comparability purposes.*

KDPW_CCP publicly discloses on its website fees on the level of individual services and policies. The information is disclosed either in Polish or in English language and can be obtained via links below:

Table of Fees – organised trading

Table of Fees – OTC trading

Both Tables of Fees include technology and communication costs.

KDPW_CCP communicates to its members and public via its website changes to services and fees on a timely basis. Publication of this information allows for easy comparison across other FMIs offering such services. This information can be obtained via link below:

Fees

Key consideration 5: *An FMI should complete regularly and disclose publicly responses to the CPSS-IOSCO Disclosure framework for financial market infrastructures. An FMI also should, at a minimum, disclose basic data on transaction volumes and values.*

In accordance with CPMI-IOSCO *Public quantitative disclosure standards for central counterparties* KDPW_CCP publishes on its website quantitative information on a quarterly basis. The information is available via link below:

KDPW_CCP PQD

KDPW_CCP also updates its self-assessments of compliance with the PFMIs that is also published on its website. The last self-assessment was updated in October 2020.

According to its *Information Disclosure Policy* KDPW_CCP publicly discloses in Polish and English language on its website general information regarding its functioning, offered services, acceptable collateral and clearing fees, risk management related information and application for membership. More detailed information can be found also in the relevant rulebooks.

Assessment of principle:
Observed

KDPW CCP

List of publicly available resources

Accounts - organised trading

Accounts - OTC trading

Business Continuity Planning System

Clearing Guarantee System Waterfall – organised trading

Clearing Guarantee System Waterfall – OTC trading

Collateral in securities and cash – organised and OTC trading

Collateral table

Description of the transaction clearing guarantee system – organised trading

Description of the transaction clearing guarantee system – OTC trading

Document templates – organised trading

Document templates – OTC trading

Document templates for clearing members

Expected shortfall – calculating initial margin – OTC trading

Fees

Funds, dedicated resources and allocation

Indirect clearing – organised trading

Information disclosure policy

Information on position concentration limits – OTC trading

Initial margin calculation – OTC trading

Initial margin calculations – organised trading

IT tools - organised trading

IT tools - OTC trading

KDPW_CCP annual reports

KDPW_CCP capital requirements

KDPW_CCP corporate regulations

KDPW_CCP organised trading rules

KDPW_CCP OTC trading rules

KDPW_CCP PQD

KDPW_CCP's investment policy

KDPW_CCP's organisational structure

KDPW_CCP's strategy

Key aspects of procedure in case of default of clearing member

Margin calculator

Membership requirements – organised trading

Membership requirements – OTC trading

PFSA's decisions

Position and asset segregation

Position concentration limits – OTC trading

Posting and releasing collateral

Processing of collateral in EUR

Resolutions – organised trading

Resolutions – OTC trading

Risk Committee

Rules for calculating KDPW_CCP's dedicated resources

Rules of the Clearing Guarantee Fund – organised trading

Rules of the Management Board.

Rules of the OTC Guarantee Fund

Rules of the Risk Committee

Rules of the Supervisory Board.

Rules of the WSE BondSpot ATS Guarantee Fund

Rules of Transaction Clearing (organised trading)

Rules of Transaction Clearing (OTC trading)

SPAN®– margin calculation methodology – organised trading

Statute of KDPW_CCP

Stress Testing of Clearing Guarantee System Resources

Supervisory Board Committees

Table of fees – collateral management

Table of Fees – organised trading

Table of Fees – OTC trading

The list of acceptable collateral

The Rules of Transaction Clearing and the Detailed Rules of the OTC Clearing System (OTC trading)

The Rules of Transaction Clearing and the Detailed Rules of Transaction Clearing (organised trading)

Transaction limits – organised trading

XML messages – changes – organised trading

XML messages – changes – OTC trading

List of abbreviations

ARM	approved reporting mechanism
ATS	alternative trading system
BGK	Bank Gospodarstwa Krajowego
CCO	Chief Compliance Officer
CCP12	the Global Association of Central Counterparties
CRO	Chief Risk Officer
CSD	central securities depository
CSDR	Central Securities Depository Regulation
CTO	Chief Technology Officer
DC	direct client
DSP NBP	Departament Systemu Płatniczego NBP
DvP	delivery versus payment
EACH	European Association of CCP Clearing Houses
EMIR	European Market Infrastructure Regulation
EOD	end-of-day
ESMA	European Securities and Markets Authority
FpML	Financial products Markup Language
GOSA	gross omnibus segregated account
IFS	individual with full segregation
IND	individual
INDC	indirect clients
ISDA	International Swaps and Derivatives Association
LCR	Liquidity and Concentration Risk Margin
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
NBP	National Bank of Poland

NCM	Non-clearing member
NKK	client classification number
OMB	omnibus
OSA	omnibus segregated account
PFSA	Polish Financial Supervisory Authority
RTS	regulatory technical standard
WSE	Warsaw Stock Exchange
WWR	wrong way risk
XML	Extensible Markup Language