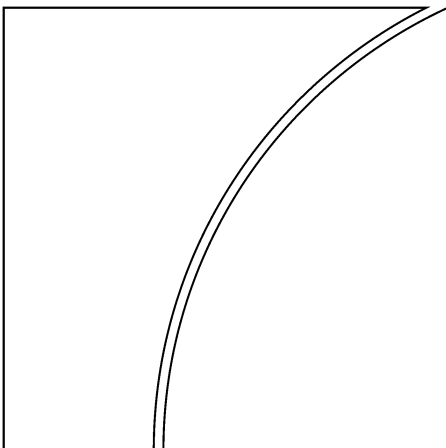


Committee on Payment and
Settlement Systems

Technical Committee of the
International Organization of
Securities Commissions



Considerations for trade repositories in OTC derivatives markets

Consultative report

May 2010



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Foreword

This report, prepared by a working group (WG) jointly established in June 2009 by the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO), presents a set of considerations for trade repositories (TRs) in over-the-counter (OTC) derivatives markets.

Over the past several years there has been a coordinated effort by public and private sector entities to improve the post-trade infrastructure for the OTC derivatives market. One outcome of this effort has been the establishment of TRs to centralise information on outstanding OTC derivatives transactions and help improve the market's overall transparency. A well designed TR that operates with appropriate risk controls can provide an effective mechanism to collect and disseminate reliable data in a timely and proper manner to relevant authorities and the public, thereby strengthening the scope and quality of information available regarding the OTC derivatives market.

The effort toward the establishment of TRs has gained further significance and momentum, as the recent financial crisis highlighted a severe lack of market transparency in OTC derivatives markets. In light of the growing importance of TRs in enhancing market transparency and supporting clearing and settlement arrangements for OTC derivatives transactions, the CPSS and the Technical Committee of IOSCO concluded that some form of policy guidance would be useful. Consequently, in parallel with its review of the application of the 2004 *CPSS-IOSCO Recommendations for Central Counterparties (RCCP)* to clearing arrangements for OTC derivatives, the WG developed a set of factors (*Considerations for TRs*) that should be considered by TRs in designing and operating their services and by relevant authorities in regulating and overseeing TRs, which are presented in this report. These two sets of policy guidance are complementary and, taken together, constitute an important part of the responses of the CPSS and IOSCO to the recommendations of the G20 that called for the strengthening of the robustness of the OTC derivatives market.¹

The report is being issued now as a consultation document and comments are invited from any interested parties. Comments should be sent both to the CPSS Secretariat (cpss@bis.org) and the IOSCO Secretariat (OTC-Trade-Repositories@iosco.org) by 25 June 2010; please mention "CPSS-IOSCO considerations for TR" in the subject line of your e-mail. The comments will be published on the websites of the Bank for International Settlements and IOSCO unless commentators have requested otherwise.

The CPSS and the Technical Committee of IOSCO are grateful to the members of the WG and its Co-Chairs, Daniela Russo of the European Central Bank and Jeffrey Mooney of the US Securities and Exchange Commission, for their excellent work in preparing this report.

William C Dudley, Chair
Committee on Payment and Settlement Systems

Kathleen Casey, Chair
Technical Committee, IOSCO

¹ See, for example, G20, *Progress Report on the Actions of the Washington Action Plan*, 2 April 2009, p9.

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1. Introduction

Background

A trade repository (TR) for OTC derivatives is a centralised registry that maintains an electronic database of the records of open OTC derivatives transactions. The primary public policy benefit of a TR stems from the improved market transparency facilitated by its record keeping function, the integrity of information it maintains and effective access to this information by relevant authorities² and the public in line with their respective information needs. A TR may also engage in the management of trade life-cycle events and downstream trade processing services based on the records it maintains.

In the absence of a TR, transaction data is maintained by individual counterparties and possibly other institutions providing services to market participants (eg prime brokers, central counterparties (CCPs), trading platforms and custodians), often stored in proprietary systems in various formats with different data fields. Thus an important benefit of a TR is that it helps to promote standardisation and provides a level of consistency in the quality and availability of transaction data. However, it should be clear that the data recorded in a TR cannot be a substitute for the records of transactions at original counterparties. Therefore, it is important that even where TRs have been established and used, market participants maintain their own records of the transactions that they are a counterparty to and reconcile them with their counterparties or TRs on an ongoing basis (including for their own risk management purposes).

Over the past several years there has been a coordinated effort by public and private sector entities to improve the clearing and settlement arrangements for the OTC derivatives market. One outcome of this effort has been the establishment of TRs to centralise information on outstanding OTC derivatives transactions and help improve the market's overall transparency. A well designed TR that operates with appropriate risk controls can provide an effective mechanism to collect and disseminate reliable data in a timely and proper manner to relevant authorities and the public, thereby strengthening the scope and quality of information available regarding the OTC derivatives market. The effort toward the establishment of TRs has gained further significance and momentum, as the recent financial crisis highlighted a severe lack of market transparency in OTC derivatives markets.

TRs are becoming a core component of the post-trade infrastructure supporting the OTC derivatives market. Currently, however, there are no international standards that are directly addressed to a TR. In light of the growing importance of TRs in enhancing market transparency and supporting clearing and settlement arrangements for OTC derivatives transactions, the CPSS and the Technical Committee of IOSCO concluded that some form of policy guidance would be useful. Consequently, the joint working group (WG) that the CPSS and the Technical Committee of IOSCO established in June 2009 to review the application of the 2004 *CPSS-IOSCO Recommendations for Central Counterparties* (RCCP) to OTC derivatives CCPs has also been tasked to analyse key risks associated with TRs and develop a set of factors (*Considerations for TRs*) that should be considered by TRs in designing and operating their services and by relevant authorities in regulating and overseeing TRs, which are now presented in this report.

² In this report "relevant authorities" refers to financial sector public authorities including central banks, securities and market regulators, and prudential supervisors of market participants. The term "relevant authorities" in this report includes the authorities who have jurisdiction over a TR (for example, the authorities of a country in which the TR is located) and other authorities who have interests over a TR.

Relationship to the CPSS-IOSCO consultative report entitled *Guidance on the application of the 2004 CPSS-IOSCO Recommendations for Central Counterparties to OTC derivatives CCPs*

In parallel to its work on the development of *Considerations for TRs*, the WG analysed key issues that arise when a CCP provides clearing services for OTC derivatives products and has developed guidance tailored to unique characteristics of OTC derivatives products and markets, which has been published as a separate but closely related report.³ The two sets of policy guidance - one for OTC derivatives CCPs and the other for TRs in OTC derivatives markets - are complementary and, taken together, constitute an important part of the responses of the CPSS and IOSCO to the recommendations of the G20 that called for the strengthening of the robustness of the OTC derivatives market.⁴ A well designed TR can improve a CCP's ability to clear OTC derivatives products in a safe and efficient manner especially if the CCP depends directly on the data stored in a TR in order to perform its clearing functions. Further, a well designed TR can enhance market transparency for the products and markets that are currently not benefiting from the centralised clearing by an OTC derivatives CCP.

Relationship to the CPSS-IOSCO review of international standards for financial market infrastructures

The proposed *Considerations for TRs*, together with the comments received during the consultation, will be further considered in a comprehensive review of international standards for financial market infrastructures, which has been recently launched by the CPSS and the Technical Committee of IOSCO, as announced in the press release of 2 February 2010.⁵ In particular, the CPSS and the Technical Committee of IOSCO note that, at this time, TRs in OTC derivatives markets are relatively new and may evolve over time. The range of factors for consideration outlined in this report may also need to evolve accordingly.

Scope of considerations for trade repositories in OTC derivatives markets

The factors outlined below should be considered by both TRs and relevant authorities as TRs develop and operate in the market. These factors are aimed at the centralised record keeping function of a TR in OTC derivatives markets. Furthermore, other types of market infrastructures or service providers that centrally maintain market-wide OTC derivatives trade information (eg CCPs) should also be expected to consider these factors for their respective record keeping functions. Where such other types of market infrastructures already adhere to the respective CPSS-IOSCO recommendations,⁶ only aspects of their TR function that do not fall within the scope of those recommendations need be considered.

Some data maintained in a TR may be considered the "official legal record" of the transaction and therefore constitute the data that can be used for various downstream processing. One possible role of a TR is to provide information for other entities which support risk reduction, operational efficiency and cost saving benefits for individual market participants and the market as a whole. Such entities may include the principals to a trade (dealers and buy-side

³ See the CPSS and Technical Committee of IOSCO, *Consultative report: Guidance on the application of the 2004 CPSS-IOSCO Recommendations for Central Counterparties to OTC derivatives CCPs*. The report is available on the websites of the Bank for International Settlements (BIS) and IOSCO.

⁴ See footnote 1.

⁵ The press release is available on the websites of the BIS and IOSCO.

⁶ See CPSS and the Technical Committee of IOSCO, *Recommendations for Securities Settlement Systems*, 2001 and CPSS and the Technical Committee of IOSCO, *Recommendations for Central Counterparties*, 2004.

firms), their agents (custodians and administrators), CCPs and other service providers offering complementary services including central settlement of payment obligations, electronic novation and affirmation, portfolio compression and reconciliation, and collateral management. If a TR itself provides any complementary post-trade services or acts as an “intermediary” and engages in other activities such as netting and asset servicing, or effects settlement, then it may be subject to other applicable standards.

Organisation of the report

Exhibit 1 lists the proposed factors for consideration by TRs and relevant authorities. Section 2 discusses the key risks managed by TRs. Section 3 describes each of these factors for consideration in detail. Annex 1 lists the members of the joint working group.

Exhibit 1: Proposed factors for consideration by trade repositories and relevant authorities

1. Legal framework

A TR should have a well founded, transparent and enforceable legal basis for each aspect of its activities in all relevant jurisdictions.

2. Market transparency and data availability

A TR should support market transparency by making data available to relevant authorities and the public in line with their respective information needs.

3. Operational reliability

A TR should identify sources of operational risk and minimise them through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Business continuity plans and backup facilities should be established to allow for timely recovery of operations.

4. Governance

Governance arrangements for a TR should be clear and transparent to fulfil public interest requirements and to support the objectives of owners and participants. In particular, they should recognise the TR's unique role and responsibilities in the markets it supports.

5. Access and participation

A TR should have objective and publicly disclosed access and participation criteria that permit fair and open access and participation by market participants, market infrastructures and other service providers that seek to join or link with the TR. A TR should require participants and linked entities to have robust operational capacity and internal controls. Requirements that limit access and participation on grounds other than risks should be avoided.

6. Safeguarding of data

A TR should implement appropriate policies and procedures, and devote sufficient resources, to ensure the confidentiality and integrity of information. Further, a TR should have robust system controls and safeguards to protect the data from loss and information leakage.

7. Timely record keeping

A TR should promptly record the trade information it receives from its participants. To ensure the accuracy and currency of data, a TR should employ timely and efficient record keeping procedures to document changes to recorded trade information resulting from subsequent post-trade events.

8. Risks in links

A TR that establishes domestic or cross-border links with other TRs, market infrastructures or service providers should evaluate the potential sources of risks that can arise, and ensure that the risks in the design and operation of such links are managed prudently on an ongoing basis. There should be a framework for cooperation and coordination between the relevant authorities of the linked entities.

9. Communication procedures and standards

A TR should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient, accurate and reliable exchange and recording of trade information.

10. Efficiency

While maintaining safe and secure operations, a TR should be cost-effective in meeting the requirements of users as well as in establishing interoperability with other TRs or interconnectivity with other market infrastructures and service providers.

11. Service transparency

A TR should provide market participants with sufficient information on its services to allow them to identify and evaluate accurately the risks and costs associated with using the services.

12. Regulation and oversight

A TR should be subject to transparent and effective regulation and oversight. In both a domestic and an international context, relevant authorities should cooperate with each other.

2. Key risks managed by a trade repository

This section discusses key risks that a TR faces as well as measures to mitigate such risks. TRs face a number of risks that, if not controlled effectively, could have a negative impact on the OTC derivatives market(s) it serves. TRs act as a central record keeper of OTC derivatives transactions and may potentially develop as a single source of information for particular segments in the OTC derivatives market. While a number of possible risks may hamper the safe and efficient functioning of a TR, some key risks include deficiencies in operational risk management and business continuity arrangements (operational reliability), as well as data inaccuracy, loss and leakage (safeguarding of data). Further, since access to timely and reliable data provides greater insights into the OTC derivatives market and improves relevant authorities' ability to oversee the market and its participants, inadequate disclosure of data by a TR to relevant authorities and the public (market transparency and data availability) could undermine the primary purpose of the TR.

TRs are a core component of the infrastructure supporting OTC derivatives markets. As such, data recorded by a TR may be utilised as input by several entities including the TR's participants, relevant authorities, other infrastructures (eg CCPs) and service providers. Continuous availability and accuracy of information stored in a TR is therefore critical. Key prerequisites for ensuring the ongoing availability of information are robust controls of operational risk and business continuity plans which are commensurate with the scalability of a TR's operations. In addition, a TR may be part of a network linking various entities (eg CCPs, dealers, custodians, service providers, etc) and as such it would be important to ensure that the TR is designed and operated in a manner that minimises the probability of its operational disruptions spreading to such linked entities.

Adequate measures taken by a TR to safeguard data can increase market participants' confidence in the safety and reliability of a TR. Trade data stored by a TR should be protected from loss, leakage, unauthorised access and other processing risks. It is necessary for a TR to apply information security and system integrity objectives to its own operations to protect trade data during transmission and dissemination. In addition, a TR's participants and entities linked with the TR should have robust operational capacity and internal controls, and this should be part of a TR's access and participation requirements.

Market transparency and data availability to relevant authorities and the public are important in view of the limited availability of alternative reliable data sources in OTC derivatives markets. Indeed, in the absence of TRs, data on OTC derivatives is typically maintained by individual counterparties and the quality, quantity and availability of data vary, making it difficult for relevant authorities and the public to develop a complete view of the market. Timely and reliable access to data stored in a TR has the potential to significantly improve the ability of relevant authorities and the public to identify and evaluate the potential risks posed by OTC derivative markets to the broader financial system and strengthen the ability of relevant authorities to monitor risks of individual market participants and market practices. Against this background, robust arrangements to ensure effective disclosure of TR data to both relevant authorities and the public are crucial.

3. Description of the proposed factors for consideration by trade repositories and relevant authorities

1. Legal framework

A TR should have a well founded, transparent and enforceable legal basis for each aspect of its activities in all relevant jurisdictions.

- A TR should operate in a clearly defined legal framework such that the laws and regulations governing a TR clearly support its rules, procedures and contractual arrangements. All rights and obligations of the TR, its owners, participants and third parties that use the trade information obtained from the TR should be clearly stated.
- A TR's rules, procedures and contractual arrangements should be clearly stated, internally coherent and readily accessible to participants and the public.
- A TR's rules, procedures and contractual arrangements should provide a high degree of certainty regarding access rights, service level and operational reliability, protection of confidential information and intellectual property rights.
- A TR's rules, procedures and contractual arrangements should be clear as to the legal status (including possible notary function) of the records maintained in the TR (eg whether or not a record constitutes conclusive evidence of the underlying contract).
- A TR should identify possible sources of conflict of laws (eg between the law of incorporation of the TR and the law applicable to the instruments recorded). The legal system should clearly support conflict of laws determinations.
- A TR's rules, procedures and contractual arrangements should describe how the legal system supports the TR's dispute resolution (eg whether there are standard procedures for its participants contesting the validity of a contract recorded in the TR).
- A TR's rules, procedures and contractual arrangements should ensure that otherwise valid contracts cannot be invalidated through the TR's recording process under any circumstances.
- A TR should identify and mitigate any legal risks associated with ancillary activities that it or an affiliated entity may perform to protect the TR's record keeping function from such risks.

2. Market transparency and data availability

A TR should support market transparency by making data available to relevant authorities and the public in line with their respective information needs.

- Because of the central role that TRs will play in adding transparency to the OTC derivatives market, effective regulatory access to and public availability of the data recorded in TRs are important elements of these considerations.
- At a minimum, all TRs should make publicly available aggregate data on open positions and trading volumes on a periodic basis with geographical and currency breakdowns, as available. The authorities with jurisdiction over a TR (for example, the authorities of a country in which the TR is located) should have the ability to require the TR to make more data publicly available, if deemed appropriate, and as permissible by applicable law.
- Relevant authorities should have access to the data recorded in a TR, including data specific to individual market participants, to meet their respective responsibilities, which

could range from oversight of market infrastructures and supervision of individual market participants to financial stability and market integrity.

- Where confidentiality and legal barriers in relevant jurisdictions restrict a TR's ability to provide data for domestic or international relevant authorities, the TR should make such restrictions clear to these authorities. A TR should also have a process in place to work with relevant authorities to resolve any data sharing restrictions where there are specific regulatory data needs. Relevant authorities should have a similar process in place among themselves.
- The type and granularity of trade information that is recorded and reported to relevant authorities by a TR should conform to established regulatory expectations and industry practices.
- A TR should be expected to report trade information in a common and easily accessible format that facilitates relevant authorities' ability to aggregate and compare the information across TRs and market infrastructures with similar central record keeping functions.
- A TR should have procedures in place to enable/facilitate proceedings taken by relevant authorities and/or other relevant parties in the event of a financial failure (eg insolvency) of a market participant that is the TR's participant by making relevant trade information recorded in the TR available in a timely and effective manner.

3. Operational reliability

A TR should identify sources of operational risk and minimise them through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Business continuity plans and backup facilities should be established to allow for timely recovery of operations.

- Operational reliability, in particular business continuity, is one of the core requirements for TRs.
- Continuous availability of the trade information recorded in a TR is critical because various interested parties, including its participants, relevant authorities, other market infrastructures (eg CCPs) and service providers may rely on the information.
- A TR should have sufficient operational and financial capacity for its ongoing and planned operations including the capability to record all trades of the OTC derivatives asset class(es) it supports.
- Given the central services a TR provides in the OTC derivatives market, it should have robust business continuity plans that allow for the recovery of all data in a timely manner after a disruption. A TR's recovery time objectives should reflect the services it provides and as a result, the recovery of operations and data may need to occur on an intraday basis.
- Operational procedures should be frequently reviewed, updated and tested.
- A TR should have clearly defined crisis management procedures, including those for communication with relevant authorities, participants and linked market infrastructures and service providers.
- Where a TR offers services in addition to its record keeping function, or considers doing so, it should ensure that it has adequate resources to do so effectively and that the additional service will not adversely impact the operational reliability of its core function of record keeping.

4. Governance

Governance arrangements for a TR should be clear and transparent to fulfil public interest requirements and to support the objectives of owners and participants. In particular, they should recognise the TR's unique role and responsibilities in the markets it supports.

- The central role of a TR within a given market (ie a single TR could potentially be the sole provider of record keeping services to the relevant markets it serves) highlights the need for effective governance arrangements. Effective governance arrangements are nonetheless equally important in the markets in which there are multiple providers of TR services.
- A TR's governance arrangements should support effective risk management, and robust and resilient operations. They should acknowledge the important role of a TR in the financial markets and the decision-making process should appropriately consider its systemic importance and the related public interests.
- Governance arrangements should identify and address possible conflicts of interest, which may arise, for example, between the unique public role of the TR and its own commercial interests particularly if the TR offers services other than record keeping or between commercial interests relating to different participants and linked market infrastructures and service providers.
- Governance arrangements should contribute to the ability of relevant authorities and the public to monitor and understand the potential risks posed by OTC derivative markets to the broader financial system by supporting robust arrangements to ensure effective distribution of reliable TR data.
- Governance arrangements should ensure that the TR supports applicable market standards for recording and reporting trade information for relevant OTC derivative products.
- Users, including buy- and sell-side, should be fairly represented in a TR's governance arrangements.
- Governance arrangements should be clearly defined and publicly available.
- Governance arrangements should ensure that the TR has adequate internal control to protect against the misuse of confidential information and the violation of intellectual property rights.
- A TR's senior management and board of directors should possess requisite skills and expertise to satisfy their responsibility in the management and governance of a TR.

5. Access and participation

A TR should have objective and publicly disclosed access and participation criteria that permit fair and open access and participation by market participants, market infrastructures and other service providers that seek to join or link with the TR. A TR should require participants and linked entities to have robust operational capacity and internal controls. Requirements that limit access and participation on grounds other than risks should be avoided.

- As a central mechanism for keeping records of OTC derivatives transactions, a wide set of stakeholders depend on having effective access to TR services. These include: market participants storing trade information in the TR; service providers that seek to provide services based on the trade information recorded in the TR, venues from which transaction data could be submitted to the TR (eg exchanges, electronic trading venues, confirmation matching platforms); and other market infrastructures (eg CCPs, payment systems).

- As part of its mission, a TR should aim to fully support the market's needs for recording trade information and reporting on OTC derivatives transactions.
- A TR should allow open access in that it enables access by technologies widely accepted in the market.
- A TR should establish requirements for access and participation, in particular to ensure that participants and entities linked with the TR have adequate operational capacity so as not to pose risks to the functioning of the TR. These access and participation requirements should be clearly stated, publicly disclosed and monitored by the TR on an ongoing basis.
- Denials of access should only be based on risk-related criteria.
- A TR should employ non-discriminatory practices and make its services available on fair and reasonable terms that are applied consistently across users of the TR's services, including market infrastructures and service providers. Market infrastructures and service providers that may or may not offer potentially competing services should not be subject to anti-competitive practices such as product tying, contracts with non-compete and/or exclusivity clauses, overly restrictive terms of use and anti-competitive price discrimination.
- To the extent a TR provides complementary post-trade processing services, these should be available independently from its record keeping function so that users can selectively utilise the services they require from the suite of services a TR may offer.
- A TR should aim to support interconnectivity with other providers of clearing and settlement services for the products supported by the TR, where requested, so that competition and innovation in post-trade processing are not impaired as a result of the centralisation of trade information in such a TR. The risks associated with such links will need to be managed appropriately (see Factor 8).
- If a TR is supporting a global market, the TR should consider its operating hours as part of its pursuit of fair and open access and participation.

6. Safeguarding of data

A TR should implement appropriate policies and procedures, and devote sufficient resources, to ensure the confidentiality and integrity of information. Further, a TR should have robust system controls and safeguards to protect the data from loss and information leakage.

- A TR should have high-quality system safeguards and controls regarding the transmission, handling and protection of data to ensure the accuracy, integrity and confidentiality of the trade information recorded in the TR.
- A TR should protect data from loss and information leakages, unauthorised access and other processing risks, such as negligence, fraud, poor administration, inadequate record keeping and failure to protect customers' interests.
- The liability of a TR should be defined in a way that provides sufficient incentives for the TR to protect its users from potential negative impact caused in the use of the TR's services (eg loss of data). At the same time the TR's contractual arrangements should afford indemnity to the TR such that its continued operations are not jeopardised. To that purpose, a TR should establish appropriate controls and protections such as using insurance schemes.

7. Timely record keeping

A TR should promptly record the trade information it receives from its participants. To ensure the accuracy and currency of data, a TR should employ timely and efficient record keeping procedures to document changes to recorded trade information resulting from subsequent post-trade events.

- Ideally, a TR should record to its central registry trade information it receives from its participants in real-time, and at a minimum, within one business day.
- A TR should have adequate procedures and timelines for making data available for downstream processing (by either the TR itself or other service providers).

8. Risks in links

A TR that establishes domestic or cross-border links with other TRs, market infrastructures or service providers should evaluate the potential sources of risks that can arise, and ensure that the risks in the design and operation of such links are managed prudently on an ongoing basis. There should be a framework for cooperation and coordination between the relevant authorities of the linked entities.

- In addition to horizontal links between TRs, links in the context of a TR will include vertical links with a wide range of entities such as CCPs, central securities depositories (CSDs), payment systems, exchanges, electronic trading venues and other market infrastructures, and service providers.
- A TR should ensure appropriate risk mitigation with respect to links, domestic or cross-border, that it may have with other TRs, market infrastructures or service providers. Where relevant, the TR should coordinate any needed reconciliations with linked market infrastructures and service providers.
- There should be a framework of cooperation and coordination between the relevant authorities of the linked entities, including provisions on information sharing and allocation of roles.

9. Communication procedures and standards

A TR should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient, accurate and reliable exchange and recording of trade information.

- Consistent communication procedures and standards (relating to messages and identification of derivatives products, counterparties and reference obligations/entities) are essential for enabling effective interoperability of a TR with other TRs or interconnectivity with other market infrastructures and service providers and for promoting consistent publication and regulatory reporting of trade information.
- Given that TRs are likely to have participants from different countries and regions of the world, they should adopt consistent communication procedures and standards for data reporting and access, and other information purposes.
- A TR should have open technology architecture and apply consistent industry standards for data representation, application interfaces and communication links. This ensures technical interconnectivity with other market infrastructures and service providers.
- A TR's system should be able to exchange trade information not only directly with market participants but also with multiple entities such as exchanges, electronic trading venues, confirmation matching platforms, CCPs and other service providers that may have relevant trade information.

10. Efficiency

While maintaining safe and secure operations, a TR should be cost-effective in meeting the requirements of users as well as in establishing interoperability with other TRs or interconnectivity with other market infrastructures and service providers.

- Efficiency is especially important under the situation where there are a limited number of entities (potentially) offering TR services for any given market segment or asset class.
- A TR should have specific arrangements in place to periodically review service levels, costs, pricing and operational reliability. While a TR would remain primarily responsible for ensuring its efficient functioning, regulatory review may also be considered.
- A cost-effective TR will encourage market participants to use its services. The fees of a TR should be fair and reasonable. The rules of a TR should disclose a schedule of prices, rates or other fees for services rendered to promote competition, prevent discrimination, and encourage innovation and use of TRs. A TR should not bundle prices of TR services with those of any other of its services that complement its record keeping function.
- While maintaining safe and secure operations, a TR should be cost-effective in establishing interoperability, especially where there is more than one TR for a single asset class. It should consider how it interacts with other market infrastructures and service providers.

11. Service transparency

A TR should provide market participants with sufficient information on its services to allow them to identify and evaluate accurately the risks and costs associated with using the services.

- By improving service transparency a TR could foster confidence of market participants in its safety and efficiency.
- Information that allows market participants to identify and evaluate a TR's risks and costs includes the rules and regulations, relevant laws, governance procedures, risks and steps taken to mitigate risks, rights and obligations of the TR's participants and entities linked with the TR, and costs of using its services.
- Before a TR makes material changes to its rules, services and operation, sufficient information of planned changes should be made public so that market participants can anticipate and evaluate possible impact on the use of the TR's services.
- All TR fee schedules should be made public, including those for any complementary services, any discounts and/or rebates.

12. Regulation and oversight

A TR should be subject to transparent and effective regulation and oversight. In both a domestic and an international context, relevant authorities should cooperate with each other.

- Relevant authorities⁷ should have the ability and the resources to carry out their regulation and oversight responsibilities effectively. Regulation and oversight should have a sound legal and institutional framework.

⁷ See footnote 2 for the use of term "relevant authorities" in this report.

- Relevant authorities should cooperate with each other, both domestically and internationally, to achieve the safe and efficient operation of TRs and links between TRs or between a TR and other market infrastructures.
- Cooperation should reflect the responsibilities of the authorities who have jurisdiction over a TR (for example, the authorities of a country in which the TR is located) and the degree of interests that other relevant authorities would have over the TR, as permissible by applicable law.
- To be able to carry out their regulatory and oversight responsibilities effectively, relevant authorities should have access to necessary information on a TR's rules, services and operation, and trade data recorded in the TR. Before a TR makes changes to its rules, services and operation, planned changes should be informed to, and approved as needed by, the authorities who have jurisdiction over the TR. The informed authorities have the responsibility to ensure that other relevant authorities receive the necessary information.
- Relevant authorities should have clearly defined and publicly disclosed objectives, responsibilities, roles and major policies for TRs.
- There may be need for cross-sector coordination among relevant authorities, eg where participants from different parts of the financial sector submit trade data to a TR.
- Different interests and responsibilities of the relevant authorities should be considered in establishing their need for information-sharing, especially given the possible global scope of a TR.
- TRs should be subject to examination and inspection which should be conducted in a cooperative manner in cases in which more than one authority has the power to conduct examinations and inspections in accordance with relevant laws and regulations. Participation of other relevant authorities in examinations and inspections should be subject to agreement with the authorities with jurisdiction over the TR and in accordance with their respective laws and regulations.

Annex 1: Members of the CPSS-IOSCO joint working group

This report was produced for the CPSS and the Technical Committee of IOSCO by a joint working group, whose members are listed below.

Co-Chairs

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US Securities and Exchange Commission	Jeffrey Mooney

Members

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Deutsche Bundesbank	Roland Neuschwander
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Hong Kong Monetary Authority	Stanley Chan
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