Thematic Review of the Implementation of Principles 6 and 7 of the IOSCO Objectives and Principles of Securities Regulation

Final Report

BOARD OF THE
INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS

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1. Introduction

At its 2012 meeting in Beijing, the IOSCO Executive Committee (now the IOSCO Board), approved the conduct of a Thematic Review of the implementation of Principles 6 and 7 ("Thematic Review") of the IOSCO *Objectives and Principles of Securities Regulation*[1] ("IOSCO Principles") by the IOSCO Assessment Committee.

Principles 6 and 7 were incorporated into the IOSCO Principles as part of a review conducted in 2009 and 2010 intended to incorporate lessons from the global financial crisis. They were intended to address particular concerns that the regulatory perimeter had not been adequately kept under review and the need for securities regulators to play a role in addressing systemic risks and maintaining financial stability.

<u>Principle 6 states:</u>

The regulator should have or contribute to a process to monitor, mitigate and manage systemic risk, appropriate to its mandate.

<u>Principle 7 states:</u>

The regulator should have or contribute to a process to review the perimeter of regulation regularly.

The Principles are supported by a methodology developed by IOSCO in 2010 and 2011 ("IOSCO Methodology"),[2] which assists in assessing and guiding the implementation of both Principles by securities regulators. The IOSCO Methodology provides background to the Principles, identifies Key Issues associated with each Principle and, through a number of Key Questions, sets out requirements expected of regulators and regulatory systems implementing both Principles. The Key Questions are intentionally high level focusing primarily on the existence of processes (without providing detail about the content and features of those processes).

<u>Principle 6 Key Questions</u>

1. Does the regulator have or contribute to a regulatory process (which may be focused on the securities market or be cross-sectoral) to monitor, mitigate, and appropriately manage systemic risk, according to the complexity of the regulator's market consistent with its mandate and authority?

2. Is the regulator developing expertise regarding risk measurements and analysis relevant to systemic risk, or if not, is the regulator able to take into consideration and apply risk measurements and analysis developed by other regulators?

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1 See *IOSCO Objectives and Principles of Securities Regulation*, International Organization of Securities Commissions, June 2010, available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD323.pdf

2 See *Methodology: For Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation*, International Organization of Securities Commissions, September 2011, available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD359.pdf

3. Is there communication and information sharing between the regulator and other domestic regulators who have responsibility for systemic stability with respect to efforts to reduce systemic risks?

Principle 7 Key Questions

1. Does the regulator have or participate in a process to identify and assess whether its regulatory requirements and framework adequately addresses risks posed by products, markets, market participants and activities to investor protection, fair, efficient and transparent markets and the reduction of systemic risk?

2. Does the regulator have a process to review, where it is presented with evidence of changing circumstances, its past regulatory policy decisions on products, markets, entities, market participants or activities, especially decisions to exempt, and take measures as appropriate?

3. Does the regulator participate in a process (with other financial system supervisors and regulators if appropriate) which reviews unregulated products, markets, market participants and activities, including the potential for regulatory arbitrage, in order to promote investor protection and fair, efficient and transparent markets and reduce systemic risks?

4. Does the regulator seek legislative or other changes when it identifies a regulatory weakness or risk to investor protection, market fairness, efficiency and transparency?

The Thematic Review was proposed for the following reasons:

- An early review of implementation would flag to the international regulatory community, including the FSB and the G20, the importance IOSCO places on these Principles and the early progress made by IOSCO Members in addressing both Principles;

- The International Monetary Fund ("IMF") has conducted a number of assessments under the Financial Sector Assessment Program ("FSAP") on the implementation of these Principles.[3] The IMF has indicated there may be some value in conducting a review of the implementation of these Principles across a broader range of jurisdictions; and

- Various IOSCO Members are considering how these Principles should be implemented. A Thematic Review is an opportunity to provide IOSCO with guidance about how the IOSCO Methodology could be made more granular.

The objectives of this Thematic Review were, therefore, to:

- Identify, survey and describe current or proposed measures by IOSCO Members to

[3] At the time of this Thematic Review Report, the IMF had conducted 12 FSAPs which had assessed the implementation of these Principles. In addition, a Technical Note had been prepared for one jurisdiction providing comments on implementation in that jurisdiction of these Principles.

implement Principles 6 and 7;

- Identify any significant differences in developed approaches and measures and flag those differences;

- Provide examples and good practices which may act as guidance and stimulus to IOSCO Members on how they might implement these Principles;

- Provide further guidance to assessors on how the current IOSCO Methodology on these Principles should be interpreted;

- Provide guidance to IOSCO on possible revisions to the current IOSCO Methodology to reflect what is perceived to be good practice; and

- Identify areas in which further guidance may be required.

This Thematic Review was not intended to be a benchmarking or rating exercise about the level of implementation of, or compliance with, these Principles. This was because both Principles are still being implemented in many IOSCO Members' jurisdictions. Rather the Thematic Review aims to get a general sense of the current state of play in terms of implementation and to identify and share good practices about the implementation of Principles 6 and 7 in IOSCO Members' jurisdictions. It also aims to act as a call for action by all IOSCO Members in implementing these Principles.

This Report describes how the Thematic Review was conducted, sets out key findings and high level recommendations directed to IOSCO, its Members and those assessing the implementation of these Principles.

The IOSCO Assessment Committee envisages that the recommendations made in this report will, over time, feed into proposals to revise the IOSCO Methodology supporting these Principles. Once these revisions are made and members have had the opportunity to apply them in their jurisdictions, it is envisaged that a full Thematic Review about implementation (involving benchmarking and ratings) will be conducted.

2. Thematic Review

Review Team

The Thematic Review was conducted by a Review Team led by the Netherlands AFM, drawing staff from nine members[4] of the IOSCO Assessment Committee and from the IOSCO General Secretariat. During the project, the Review Team consulted with the IOSCO Standing Committee on Risk and Research ("SCRR")[5] drawing on the SCRR's technical expertise on research, financial economics and risk.

Methodology

The Thematic Review was undertaken as a desk-based exercise, using responses provided by IOSCO Members to a questionnaire designed and developed by the Review Team and delivered through a purpose-built online survey tool.

All IOSCO Members were encouraged to participate in the Thematic Review. IOSCO Board Members and IOSCO Assessment Committee members were expected to participate with a view to providing leadership and support for the project. Thirty-four IOSCO Members[6] from thirty-one jurisdictions contributed to this Thematic Review.[7] Seven IOSCO Board Members did not participate.[8]

Respondents represented all IOSCO regions, and included representation from 14 members of IOSCO's Emerging Markets Committee (now Growth and Emerging Markets Committee).[9]

The self-assessment questionnaire used as a starting point the Key Questions in the IOSCO Methodology for Principles 6 and 7. In addition, it asked questions about the following:

- If and how *systemic risk* is defined;
- Securities regulators' powers and operational structure in relation to systemic risk;
- Details of existing formal and informal processes used (or proposed to be used) by

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4 Netherlands AFM (Review Team leader), AMF France, US SEC, UK FCA, SEBI, JFSA, ISA, CSSF and ASIC. A list of Review Team members is in Appendix 1.

5 The Standing Committee on Risk and Research was renamed Committee on Emerging Risks in June 2013.

6 As the Canadian IOSCO members submitted a joint response the total amount of respondents is 32.

7 Australia (ASIC), Belgium (FSMA), Brazil (CVM), Canada (jointly Ontario SC, AMF Quebec, Alberta SC), China (CSRC), Dubai (DFSA), Ecuador (SC), France (AMF), Germany (Bafin), Hong Kong (SFC),India (SEBI), Israel (ISA), Italy (Consob), Japan (FSA), Jersey (JFSC), Luxembourg (CSSF), Mauritius (FSC), Mexico (CNBV), Netherlands (AFM), New Zealand (FMA), Sultanate of Oman (CMA), Pakistan (SEC), Portugal (CMVM), Singapore (MAS), Slovenia (SMA), South Africa (FSB), Spain (CNMV), Switzerland (FINMA), Turkey (CMB), United Kingdom (FCA) and the United States (SEC and CFTC).

8 Korea, Morocco, Nigeria, Romania, Argentina, Chile and Trinidad and Tobago.

9 The original questionnaire was responded by the UK FSA, which has now been replaced by two new authorities: the Financial Conduct Authority (FCA) and the Prudential Regulatory Authority (PRA). Where **possible** updates have been made to reflect how the successor organisations are operating, so that the information in the present report **better** reflects the current regulatory framework in the UK.

securities regulators to identify, monitor, mitigate and manage systemic risks and to review the regulatory perimeter. The focus of questions was on securities regulators' internal processes (in relation to their own mandates) and other processes to which they contribute (e.g., inter-agency processes);

- Perceived strengths of these processes, outcomes achieved through applying the processes, opportunities for improvement and issues faced in implementation; and

- Possible suggestions for improving the IOSCO Methodology for Principles 6 and 7.

After an initial analysis of responses to the questionnaire, respondents were given the opportunity to check the accuracy of the data compilation undertaken by the Review Team.

3. High Level Recommendations

Introduction

Respondents participating in the Thematic Review demonstrated significant efforts to implement Principles 6 and 7.

On Principle 6, good progress has been made in developing processes and procedures to identify systemic risks (along with other risks). However, the Thematic Review points to further work being needed in many jurisdictions to develop processes to identify, manage and mitigate systemic risks.

On Principle 7, many jurisdictions have informal processes to review the regulatory perimeter, with some having developed more formal processes. There is still scope for members to better articulate their responsibilities, powers and objectives to achieve the outcomes sought by this Principle.

The Thematic Review also identified the need for IOSCO to provide more detailed and granular guidance about the characteristics and features of processes that IOSCO Members should have in place for both Principles. Participants in the Thematic Review found the IOSCO Methodology inadequate in this regard.

Recommendations

The recommendations which follow are intended to provide further guidance to IOSCO Members as they develop and implement relevant processes in relation to Principles 6 and 7. They are also intended to provide a basis for possible revisions to the IOSCO Methodology for these Principles.

The recommendations draw from what are increasingly common practices among participating IOSCO Members in implementing these Principles.

The Review Team was challenged in making recommendations based on the effectiveness of processes observed through the Thematic Review. These reasons include the following:

- The relative novelty of processes meant that there has been limited opportunity or time to test their effectiveness. Consequently, it was difficult to make firm and concrete assessments about the differences they had made; and

- Specific criteria for assessing effectiveness are difficult to devise. As noted, Principle 6 seeks to ensure that securities regulators have in place processes that promote and allow for the effective management of systemic risk. Principle 7 focuses on risks outside the regulatory perimeter. Arguably, the effectiveness of measures and processes need to be assessed according to a counter factual – that is, whether they have prevented further (systemic) crises or have contributed to a reduction of the impact of such crises beyond what would have occurred had the measures and processes not been in place. At this juncture, therefore, effectiveness assessments by necessity have to be based on institutional, organizational and cultural changes; in particular, increased awareness and appreciation of the benefits of systemic risk processes and processes to review the regulatory perimeter.

The recommendations are also at a high level – and necessarily so. The IOSCO Assessment Committee believes there cannot be a *one size fits all* approach to processes to give effect to Principles 6 and 7 given differences in legal frameworks, regulatory structures, regulatory perimeter, and local market circumstances (for example the complexity and/or size of the securities market).

The recommendations not only reflect the interrelated nature of Principles 6 and 7 but also their separate and distinct scope. Principle 6, as crafted, has a particular focus on systemic risk (and is limited to the regulator's mandate). Principle 7 is broader in scope (including systemic risks and other risks) and does not limit itself to the regulator's mandate. Survey responses pointed to similar processes being applied to the implementation of both Principles. To reflect this, the high level recommendations outlined below apply to the implementation of both Principles. Where recommendations apply to the implementation of only one of these Principles, this is clearly indicated.

This Report makes recommendations about:

- The structure within which processes are conducted and the processes themselves;
- How regulators should co-operate with other agencies in their own jurisdiction and with regulators in other jurisdictions; and
- The resourcing and culture which the Thematic Review highlighted as necessary to support the processes and co-operation arrangements.

Structure

1. **Integration into Existing Risk Management Framework.** The identification, monitoring, mitigation, and appropriate management of systemic risk emerging from securities markets or affecting securities markets and the review of the regulatory perimeter should be integrated into securities regulators' risk management frameworks through formalization of processes and arrangements including support by formal committee structures.

2. **Clear Responsibilities in relation to Systemic Risk.** Securities regulators should have a clear understanding of their responsibilities in:

   - Identifying, monitoring, mitigating and appropriately managing systemic risks related to securities markets; and
   - Contributing to processes in relation to other financial markets.

   This understanding should be based on a clear definition of systemic risk. It should also entail an understanding of securities regulators' responsibilities in relation to macro-prudential risks which may require consideration of and contributing to the identification and management of those risks.

3. **Clear Responsibilities in relation to Reviewing the Regulatory Perimeter.** The responsibilities of the securities regulator in jurisdictional arrangements to review the regulatory perimeter should be clear. These arrangements should allow for identification of risks posed by unregulated products, markets, market participants and activities.

Arrangements should consider the potential for regulatory arbitrage, which might emerge outside the securities regulators' mandate but may affect the discharge of its statutory functions (even where the securities regulator does not have the explicit power to intervene). In such instances, securities regulators should be able to raise awareness of issues or to pass them on to other relevant authorities within its jurisdiction to act. This action may include seeking to introduce requirements under its rulemaking powers or seeking changes in legislation.

Systems/Processes

4. **General Arrangements.** Arrangements to identify, monitor, mitigate and manage systemic risk and review the perimeter of regulation should:

   (i) Entail a holistic and systematic analysis of entities, products, markets, market infrastructures and activities across securities markets that could be the source of systemic risk or that could raise concerns about the regulatory perimeter. The analysis should use a combination of quantitative and qualitative tools;

   (ii) Involve the systematic and robust analysis of accessible, reliable and good quality data (including micro- and macro-economic data and market intelligence) either collected by the securities regulator or sourced from other agencies or parties (including prudential supervisors);

   (iii) Include mechanisms to assist in understanding the evolving functioning of securities markets;

   (iv) Involve engagement with market participants to better understand emerging risks, systemic and otherwise. This engagement may take the form of surveys, formal consultations, informal roundtables, individual meetings, etc.;

   (v) Include documentation about the work performed in assessing potential systemic risks at each stage of the assessment process, and documentation about the status of steps taken to mitigate identified risks;

   (vi) Allow for periodic reassessment of procedures and outcomes; and

   (vii) Provide for policy and/or regulatory actions, where appropriate in the context of the regulatory mandate, based on the assessments conducted.

5. **Systemic Risk Arrangements.** These arrangements should, in addition to the general arrangements set out above:

   (i) Provide a broad understanding of the financial markets environment in which securities regulators operate and on which assessments of systemic risk can be made. The understanding should have a global focus. It should also take into account the interconnections between different products, markets, market infrastructures and activities across securities markets;

   (ii) Complement reviews undertaken by prudential regulators, where appropriate, by incorporating analysis of the operation of securities markets and the interplay between various markets and participants; and

(iii) Include the development and use of indicators to calibrate systemic risk emerging from (or affecting) securities markets. The indicators should contain specific qualitative and quantitative criteria.

6. **Regulatory Perimeter Arrangements.** These arrangements should, in addition to the general arrangements set out above:

   (i) Involve securities regulators systematically identifying, prioritizing and determining the scale and scope of emerging risks from different entities, activities, markets and products in financial markets that could serve as the basis for deciding whether and what type of regulatory action or intervention is warranted;

   (ii) Build on existing risk identification frameworks by requiring securities regulators to proactively go beyond existing regulatory boundaries to identify potential risks; and

   (iii) Recognize that different approaches may be required to discern and assess different types of risks; just as having a single perspective may not prove effective, having only one risk approach similarly may not suffice. For example, a different approach may be warranted for known risks that are being re-evaluated, as opposed to emerging risks being considered for the first time, particularly if they are emerging outside of the regulatory perimeter.

Cooperation and Coordination

7. **Intra-Jurisdictional Cooperation**. Systemic risk is a relevant concern to all financial regulators in a given jurisdiction. A strong information sharing framework should be in place between relevant regulators and supervisors. This information sharing framework should cover the identification, monitoring, mitigating and appropriate management of systemic risks. The framework should be supported by formal co-operation or institutional arrangements. Regulators should ensure they understand the specific mandate, role and powers of other regulators in their jurisdiction to facilitate the effectiveness of the framework.

8. **Cross Border Cooperation and Coordination.** Securities regulators should communicate information and data about identified systemic risk(s) with regulators in other jurisdictions, under established procedures or arrangements and/or supported by bilateral and/or multilateral MoUs. IOSCO should consider developing multilateral arrangements on how such information and data could be shared.

   IOSCO should also explore how the identification, mitigation, monitoring and appropriate management of systemic risk and reviews of the regulatory perimeter could be coordinated among its Members.

Culture and Resourcing

9. **Culture.** Securities regulators should seek to build an organizational culture that supports and serves as a foundation to processes in relation to systemic risk and reviewing of the regulatory perimeter. Securities regulators should seek to ensure awareness of their systemic risk and regulatory perimeter review arrangements and commitment to the

effective and meaningful operation of such arrangements (including promotion of *professional skepticism*) as key elements of their organizational culture.

10. **Resourcing.** To support the effectiveness of the risk arrangements outlined in these recommendations, the securities regulator should have appropriately skilled and adequate human and technical resources.

4. Summary of Key Findings

4.1 General comments relating to both Principles 6 and 7

- **Significant efforts** have been made by jurisdictions of respondents **in implementing Principles 6 and 7**. All respondents indicated that they have implemented or are implementing intra-agency and inter-agency processes and mechanisms. In relation to systemic risk, there has been a greater focus on processes to identify systemic risk, with less attention paid to processes to manage and mitigate identified systemic risk.

- Responses indicated that the **emergence of crises** triggered jurisdictions and regulators to develop these processes, with most respondents having put processes in place in response to the recent financial crisis.[10] As a result, for many jurisdictions implementation of these processes is still very much a work-in-progress, with limited experience gained so far. Also, the international regulatory reform agenda is rapidly moving and expanding in response to market developments. Regulators have to cope with the multiple regulatory developments, putting a strain on limited resources.

- Jurisdictions have adopted **different approaches to addressing systemic risk and to reviewing the regulatory perimeter.** These differences reflect **different financial regulatory architectures**[11] (i.e., integrated, twin peaks (or twin peaks-based) or sectoral as well as the domestic territorial organization (e.g., national, federal, provincial, etc.). These differences relate to the way regulatory agencies have set up their internal processes and how they co-operate.

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10 Not only due to the recent crises in the United States and Europe, but also following the earlier Asian crisis in the late 1990s.

11 Regulatory structures concerning financial oversight in the various contributing jurisdictions vary widely. Differences are observed from jurisdiction to jurisdiction regarding which bodies are charged with overseeing financial markets and dealing with threats to the stability of the financial system. The following types of structures / approaches were identified through the survey responses:

- Various *twin peaks* based models (that separate prudential regulatory oversight from securities market and conduct-of-business regulatory oversight)
  - where some areas are under the supervision of the securities market regulator (in charge of conduct-of-business regulation except for banking and insurance products) and where the prudential regulator is in charge of prudential regulation of all financial entities except asset management firms;
  - where prudential regulatory oversight is within the national bank and separated from conduct-of-business regulation;
  - where the insurance sector and pension funds are under separate sectoral supervision;
  - an institutional structure where each distinct sector of the financial services industry has an independent or distinct regulatory agency.
- Sectoral and federal/provincial models
- Integrated models
  - an integrated model with two exceptions, where the insurance sector and clearing and settlement are supervised by a separate body;
  - an integrated model with the exception that commercial banks are under the supervision of the central bank;
  - an integrated model with the exception that commercial banks and non-bank deposit-taking financial institutions are under the supervision of the central bank.
- A mix between an institutional and functional structure.

- Most respondents indicated the use of either formal or informal processes, to identify, monitor or address (systemic) risks and review the regulatory perimeter, with some indicating that processes are still being developed. In some cases, respondents are developing formal procedures and processes to codify existing informal processes. Establishing these processes often takes time due to the various operational and sometimes structural changes required.

- Core elements of these processes involve the following:

  - Reliance on existing core supervisory and regulatory processes (including authorization procedures and day-to-day supervision of authorized entities);

  - Collection and analysis of micro-economic data (taking into account, where necessary in relation to securities markets, certain macro-economic data elements);

  - Processes to identify and understand new trends, practices and products in and around securities markets;

  - A bottom-up or top-down approach,[12] or a combination of both; and

  - Intra- and inter-jurisdictional cooperation.

[12] See under section (b) Processes and Approaches, page 20.

4.2 Principle 6

(a) Framework for addressing systemic risk

Powers in relation to systemic risk

- Few respondents were able to point to **explicit legal powers** to deal with systemic risk. Most respondents pointed to **implicit powers** to identify or address systemic risk through their general mandate to ensure the proper functioning of financial markets as a matter of operational policy and practice. These included being responsible for ensuring the orderly function of securities markets, overseeing market infrastructures, "conduct of business" regulation and regulation of collective investment schemes – all of which can be affected by systemic risk.

Examples of powers to address systemic risk

Explicit powers with regard to systemic risk derived from the law included the following:

- Italian law requires that the stability and proper functioning of the financial system shall be among the objectives of market intermediaries' supervision of the Italian securities regulator, Consob.

- Consob must cooperate closely with the European Systemic Risk Board ("ESRB") and the authorities within the European System of Financial Supervisors ("ESFS") and provide them with all information necessary for the fulfilment of their tasks in accordance with EU legislation. Moreover, in case of crises or tensions in financial markets, the Italian Central Bank and Consob must consider the effects and spillovers of their actions on the stability of other EU Member States' financial systems.

- In the *twin peaks* model in Belgium, the National Bank of Belgium ("NBB") is fully responsible for the prudential supervision of financial institutions and for the micro- and macro-economic stability of the financial system as a whole.

- The FSMA is responsible for all monitoring activities relating to financial market supervision. As market integrity regulator, the FSMA plays a role in identifying, monitoring and mitigating systemic risks, and hence in promoting financial stability.

- FSMA's Management Committee takes cognizance of developments and general questions relating to economic, systemic or structural issues of a nature to influence the areas of competence of the FSMA, and of all questions relating to the application of legislation or regulations in respect of the areas of competence of the FSMA.

- In addition, when an emergency situation arises, including adverse developments in financial markets that could threaten market liquidity and financial stability in EU Member States, the FSMA can communicate information to the NBB and to the central banks of the European System of Central Banks where such information is relevant for exercising their respective statutory tasks (including the conduct of monetary policy and the related provision of liquidity, the supervision of systems of payment, clearing and settlement, and the safeguarding of financial stability).

- In France, the AMF has been mandated by law to consider financial stability objectives in the EU and European Economic Area ("EEA") when implementing its mission.

Systemic Risk definition

- Overall, respondents acknowledged the importance of having a definition of systemic risk, either legislated or in working format, providing a clear understanding and basis for the activities of the regulator.

- All but three respondents indicated that they have either a legal, statutory or working definition in place that is either based on, or consistent with, the **IOSCO definition of systemic risk.**[13]

- In some instances, respondents specifically referred to an internationally accepted definition (e.g., IMF/FSB,[14] IOSCO) or to a regional legal definition (ESRB definition, see below). In a few cases, a more tailored approach has been taken, based on the use of a definition relevant to the mandate of the securities regulator.

Examples of working definitions

- Certain respondents use working definitions of systemic risk aimed at monitoring risks (as defined) and taking the necessary measures to avoid their build-up. For example:
  - "the possibility of an event causing impairment of the financial system that will lead to major economic disruption" *(Australia*, *New Zealand*); or
  - "a systemic risk is a risk which, if it crystallized without any form of intervention by the authorities, would mean a high likelihood of major, rapid disruption to the effective operation of a core function of the financial system (and so leading to a wider economic impact)" (*United Kingdom*).
  - In Japan, although "systemic risk" is not explicitly referred to, the Japanese Government has amended its law to establish a framework for an orderly resolution regime of financial institutions, in order to address risks that may spread

13 "*The potential that an event, action, or series of events or actions will have widespread adverse effect on the financial system and in consequence on the economy [Systemic risk] has the potential to harm a large number of investors and market participants and […] also can have a widespread negative effect on financial markets and the economy*" (source: Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation, Principle 6, IOSCO, September 2011 supra fn No 2, page 39).

14 "*A risk of disruption to financial services that is caused by an impairment of all or parts of the financial system and has the potential to have serious negative consequences for the real economy.*" (source: BIS report "Guidance to assess the systemic importance of financial institutions, markets and instruments: initial considerations," October 2009).

across financial markets. Orderly resolution can be initiated when the Prime Minister, along with the discussion at the financial crisis management council, determine that a "severe turmoil in financial system or financial market cannot be avoided in absence of orderly resolution measures".

- Other respondents consider that systemic risk is intrinsically linked to broader concepts, such as:

    - *financial stability* in general *(Spain)*; or

    - any "crisis relating to […] financial institutions which may have contagion effects on the financial systems; [or any] instability which may prejudice the functioning of the financial markets, payment systems and other financial market infrastructures; [or] any other event which may harm on a general basis the trust of households, investors and insured persons or other participants to the financial market." *(Italy)*.

- **Regional considerations** are also relevant to the definitions which are used in some jurisdictions. EU member-based respondents use local (working) definitions (as illustrated above), elements from the IOSCO definition and/or the legal definition of systemic risk under applicable EU legislation (the ESRB definition of systemic risk of which a key dimension is the impact on the European internal market).

ESRB[15] definition of systemic risk

- *Systemic risk* means a risk of disruption in the financial system with the potential to have serious negative consequences for the internal market and the real economy. All types of financial intermediaries, markets and infrastructure may be potentially systematically important to some degree.

- *Financial system* means all financial institutions, markets, products and market infrastructures.

- Three respondents indicated that they have no specific (statutory or working) definition of systemic risk *(Dubai, India, Jersey)*. One jurisdiction has defined financial stability and crisis and has put in place elaborate formal mechanisms to deal with both *(India).*

- Respondents described different approaches to applying these definitions. Some respondents use events or actions as a starting point for approaching systemic risk, while others approach systemic risk from the angle of systemically important entities.

Jurisdictional arrangements

- Dealing with **issues of financial stability (and therefore systemic risk) is still predominantly considered to be the responsibility of central banks or prudential**

[15] REGULATION (EU) No 1092/2010 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on European Union macro-prudential oversight of the financial system and establishing a European Systemic Risk Board.

regulators. Although it is increasingly acknowledged that securities regulators do have an important role to play in identifying, monitoring and mitigating systemic risks, and hence in promoting financial stability, the notion still has a prudential bias.

- All respondents have indicated that they have either formal or informal arrangements in place to address systemic risk; with other regulators and supervisors within their jurisdiction and with regulators in other jurisdictions.

Examples of arrangements

- Twenty three respondents have indicated the existence of intra-jurisdictional financial stability oversight bodies or other forums (such as inter-ministerial forums) *(Australia, Brazil, Canada, China, France, Germany, Hong Kong, India, Israel, Italy, Jersey, Luxembourg, Mauritius, Mexico, the Netherlands, New Zealand, Portugal, Singapore, South Africa, Spain, Turkey, United Kingdom and United States).*[16] In some jurisdictions industry representatives are represented in those bodies alongside representatives of the financial regulators (*South Africa*).

- A minority of jurisdictions have established arrangements (e.g., memoranda of understanding, bilateral agreements with other regulators) to ensure inter-agency cooperation in relation to systemic risk (*Australia*, *Belgium, Dubai*, *Mauritius, Sultanate of Oman, Pakistan, South Africa and Switzerland).*

- Certain of these jurisdictions are considering institutionalizing their arrangements by creating a more formal committee in the foreseeable future *(Belgium).* In some instances cooperation is assured through informal processes which are not as such subject to specific contractual arrangements (*Japan*).

Examples of formal arrangements

- Formal arrangements generally take the form of either specific committees/bodies that have been established to facilitate cooperation between different regulators at a national level or contractual/cooperation arrangements (multi or bilateral) between different national regulators.

- While some of the bodies have been created specifically to monitor systemic risks (*Germany, South Africa, Turkey*), others have a broader remit, more generally facilitating the coordination of actions for the management and resolution of systemic crises (*Italy*) or covering policy issues in areas of shared responsibility, such as financial stability (*Canada, France, India*).

[16] A new bill was recently proposed to the Belgian government to set up a national authority entrusted with the conduct of macro-prudential policy as recommended by the ESRB [Recommendation ESRB/2001/3]. The authority would include representatives from the National Bank of Belgium (NBB), from the FSMA and representatives of the Ministry of Finances and the Ministry of Economy.

Examples of informal arrangements

- Informal arrangements typically take the form of regular exchanges of information between national regulators, through periodic and *ad hoc* meetings, etc. (*Japan*).

(b) Processes and Approaches

- Findings regarding the processes and approaches taken are organized below around the current Key Questions used in the IOSCO Methodology to support the implementation of Principle 6. They point to responding jurisdictions having taken some steps to implement this Principle.

Processes to monitor, mitigate and appropriately manage systemic risk (Principle 6, Key Question 1)

- All but one respondents indicated that they have **existing internal (or propose to have) processes to deal with systemic risk**.

- Twenty-one respondents identified that these processes were put in place **following the onset of the recent financial crisis**. Of these, fifteen respondents stated that they have implemented or reinforced these processes in the last few years. Three respondents identified that implementation of their formal internal processes is subject to the enactment or promulgation of new legislation and five respondents indicated that tools are still under development.

Most processes currently in place relate to the identification of systemic risks. Only a few relate to the monitoring or managing of systemic risk.

Examples of systemic risk identification processes

- In Germany, the securities regulator (Bafin) carries out **<u>trend scouting</u>** as a survey research process that can be complemented by on-site investigations and meetings with market participants. As part of this process, questionnaires are developed by an internal working-group and are adapted from time to time, taking into account any recent developments in the markets or the market participants or their behaviors. The questionnaires consist of open-ended questions on investment strategies, projected activities in new markets and organizational changes. A summary of the answers and a proposal for the follow-up of any findings is provided to the risk secretariat and risk committee. As a result of the first trend scouting survey conducted in 2012, the regulator decided to further monitor all direct and indirect investments in emerging markets by investment companies in order to assess whether or not there might be a systemic risk. The regulator indicated it will devote sustained attention to this matter in the next questionnaire.

- In India, the securities regulator (SEBI) has developed a *Systemic Risk Monitoring Template* comprising of systemic risk indicators broadly and thematically based on indicators suggested by the FSB and IOSCO. The template will be integrated with the already-in-place automated alert generation mechanisms (through which the automated alerts from the stock exchanges and depositories are processed by the regulator).

- The majority of respondents indicated that they have set up or are developing a **unit**[17] **responsible for collecting market intelligence, undertaking analysis** to identify and address systemic risk in securities markets and **advising/recommending appropriate next steps/actions**. Various respondents mentioned the set-up of **dedicated financial stability units with qualified staff**.

- Some respondents described the usefulness of having **top-down and bottom-up approaches**.

  - A bottom-up approach involves analysis of micro-economic data and information collected from markets and market participants to identify potential threats that could evolve into systemic risks.

  - A top-down approach involves developing hypotheses about possible systemic events from which the potential impacts on entities, markets and/or activities are assessed.

  These approaches require securities regulators, in particular, to look at **potential** sources of systemic risks, bringing together, in a coherent and consistent way, findings from the micro-prudential supervision across the relevant business areas, i.e., wholesale and retail (bottom-up approach) with a macro-prudential analysis (top-down approach), as well as extending their view beyond the regulatory perimeter.

- Some respondents pointed to the need to ensure systemic risk processes are developed into an effective risk discipline with planning, prioritizing and making actionable the outcomes of analysis. This would be supported and encouraged by ensuring systemic risk processes are integrated into a securities regulator's existing risk management framework. It would also be supported by **building a culture and mindset around the role and relevance of systemic risk to securities regulators**.

Examples of enhancing risk discipline and culture

- In France, the quarterly AMF Risk Committee has not only been set up to perform analysis but also to ensure an effective risk discipline, to establish priorities, and to follow through on decisions made; the AMF Risks and Trends Mapping Reports have increased in quality and consistency, making an important contribution to both the discussions and the risk culture within the AMF (as well as becoming an important communication tool externally);

- In the Netherlands, the AFM acknowledges the importance of contributing to the further enhancement and deepening of its risk and problem-driven supervisory model by promoting closer cooperation, sharing of knowledge, and accumulation of expertise between departments and between the financial services supervision and the capital markets supervision, by strengthening the internal risk culture, because identified risks are analyzed and prioritized in a wider context).

[17] Risk department/unit/group/division/panel/sub-committee or task force.

- Twenty respondents have developed or are developing a **risk methodology to identify systemic risk and basic tools to support their methodology**. Initiatives include:

    - A (quarterly, semi-annual, or annual) risk reporting mechanism variously referred to as a **risk dashboard, risk barometer, risk mapping or financial stability report** capturing a variety of risk measures that cover both firms and markets; and

    - A **risk register,** which tracks the status of mitigation for each risk description, such as policy proposals and international initiatives. It also documents the work done at each stage of the assessment, including the reasons for assigning a priority level, systemic importance ratings, and the risks and vulnerabilities evaluated for the systemic risk potential.

- Twenty respondents mentioned that they have developed or are developing a set of indicators to identify and monitor systemic risks. These may include both quantitative and qualitative indicators. In general, the specific use of **quantitative criteria** has been difficult to identify: respondents that indicated they used quantitative criteria provided no reference to any specific quantitative threshold in relation to these criteria, though respondents also acknowledged the importance of making use of these criteria in monitoring systemic risk.

- Nine respondents mentioned the use of criteria developed either by the **FSB,**[18] **IOSCO**[19] or the **ESRB**[20] for identifying systemic risk.

Examples of features/indicators

Some respondents (*Canada, India, Italy, Luxembourg, Mauritius, New Zealand*) indicated that some of the following features were, or would be, taken into consideration in identifying systemic risk:

- Size/significance;
- Interconnectedness;
- Substitutability;
- Risk concentration;
- Transparency;
- Leverage;

[18] Size or significance to the capital markets, interconnectedness, availability of substitutes, existing regulation, existing information, complexity and opacity.

[19] See footnote no. 10.

[20] The ESRB Regulation notes that: "*The key criteria helping to identify the systemic importance of markets and institutions are size (the volume of financial services provided by the individual component of the financial system), substitutability (the extent to which other components of the system can provide the same services in the event of failure) and interconnectedness (linkages with other components of the system). An assessment based on those three criteria should be supplemented by a reference to financial vulnerabilities and the capacity of the institutional framework to deal with financial failures and should consider a wide range of additional factors such as, inter alia, the complexity of specific structures and business models, the degree of financial autonomy, intensity and scope of supervision, transparency of financial arrangements and linkages that may affect the overall risk of institutions' size or significance to the capital markets, interconnectedness, availability of substitutes, existing regulation, existing information, complexity and opacity*."

- Behavioral issues (including governance, internal procedures and management of conflicts of interest);
- Level of regulation;
- Regulatory gaps;
- Investor confidence;
- Regulatory influence; and
- Market integrity.

- A few respondents stated that they tackle systemic risk by having in place **a rigorous authorization process** (for new products, market infrastructures and market participants) in order to avoid the build-up of (systemic) risks emanating from firms/market participants.

Cooperation and Coordination Arrangements (Principle 6, Key Question 2)

- All but one respondent mentioned they have **existing and/or proposed processes and/or mechanisms to cooperate** with other agencies to identify and address systemic risk.

- Eight respondents described **cooperation, collaboration and information-sharing mechanisms** with other agencies (either prudential regulators, central banks or government) in their jurisdiction.

- Twenty three respondents mentioned that they have established or are developing some kind of framework – including **coordination forums and councils, financial stability oversight and risk committee structures** - as a primary mechanism to coordinate and address systemic risk and to combine micro-prudential aspects and macro-prudential risk assessments.

- All but one respondent indicated that they have **powers to share information with foreign regulators** and that they make use of the IOSCO MMoU[21] or of bilateral MoUs for information sharing. These respondents indicated that they either draw upon participation in regional (e.g. ESMA, ESRB) and international (e.g. FSB, IOSCO) forums, or upon an extensive informal network of contacts at other regulators, to develop or enhance their risk identification and measurement capabilities.

Examples of processes and/or mechanisms through which agencies cooperate

- In Mexico, the Financial System Stability Council ("FSSC") was created as an entity for the evaluation and analysis of the financial system, and for the coordination of the financial authorities. Its goal is to pursue financial stability, to avoid substantial disruptions to the functioning of the financial system, and mitigate any effects when disruptions occur. It also has the mandate to identify the risks posed to the financial stability in a timely manner, analyze them, and recommend and coordinate policies and actions. The FSSC meets every three months to discuss the risks identified and to issue recommendations, if necessary. The members of this FSSC include the Bank of Mexico, the Ministry of Finance, the CNBV, the CNSF[22], the CONSAR[23], and the IPAB[24].

21 IOSCO Multilateral Memorandum of Understanding Concerning Consultation and Cooperation and the Exchange of Information, May 2012: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD386.pdf

22 Comisión Nacional de Seguros y Finanzas.

- In Germany, with regard to systemic risk identification, BaFin and Deutsche Bundesbank (the central bank) have established a joint risk committee as a discussion platform in order to combine micro-prudential aspects with macro-prudential risk assessments. This committee has formal meetings on a quarterly basis. The financial stability, the risk and financial market analysis and the banking supervision units of the German supervisors participate in these meetings. This allows an informed discussion of risks identified at the macro-prudential level as well as those identified in the course of supervision. As of 2013, the co-operation between BaFin and Deutsche Bundesbank has been further enhanced due to the Financial Stability Act ("Act"). This Act establishes a financial stability committee comprised of representatives of BaFin, Deutsche Bundesbank and the Ministry of Finance. This committee meets at least quarterly, analyses risks emerging for financial stability, strengthens the cooperation between the participating institutions, reports annually to the German Parliament (Bundestag) and it may issue warnings and recommendations. The Act also contains a broad legislative basis for information exchange.

- In India, a Financial Stability and Development Council ("FSDC") has been set up vide Government Notification in 2010 to institutionalise and strengthen the mechanism for maintaining financial stability and inter-regulatory co-ordination. The Council has member representation of Governor, Reserve Bank of India, Chairman, SEBI, Chairman, Insurance Regulatory and Development Authority, Chairman, Pension Fund Regulatory and Development Authority and is chaired by the Union Finance Minister. The Council meets periodically to deal with the issues pertaining to financial stability.

Examples of types of information sharing

- In Australia, the Australian Securities and Investments Act ("ASIC Act") empowers ASIC, under certain circumstances, to share information with foreign regulators that is already in its possession or that it is able to collect for its own purposes. If ASIC does not have information in its possession, but has an independent interest in the matter because of suspected contraventions of legislation it administers, ASIC may require information and documents to be produced to it under the ASIC Act. Also, ASIC is, subject to certain restrictions, able to collect information and evidence for the use of a foreign regulator if the foreign regulator requests information in relation to administration or enforcement of foreign business laws.

- In the Netherlands, the AFM is able to cooperate fully with both EU and non-EU jurisdictions. Cooperation has to be pursuant to the responsibilities and powers reflected in the Dutch act on financial supervision. Information requests can be denied, if the provision of the data or information conflicts with Dutch sovereignty, national security or public order, legal proceedings are already pending in the Netherlands on the same charge and against the same person or a final and conclusive judgment has already been delivered in the Netherlands on the same charge and against the same person.

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[23] Comisión Nacional del Sistema de Ahorro para el Retiro.

[24] Instituto para la Protección al Ahorro Bancario.

- In the United Kingdom, the FCA has a duty to co-operate with other bodies that have similar functions to those of the FCA. If the information to be exchanged is confidential, then the FCA is subject to the restrictions on disclosure set out in the law. However, sections of the law provide particular gateways which allow the FCA to lawfully disclose confidential information to certain persons and bodies specified in these regulations; the Bank of England and Treasury in the UK, as well as to other EEA or non-EEA supervisory authorities. In the case of non-EEA supervisory authorities, the FCA can only disclose confidential information which it has obtained in the course of carrying out its duties under various EU single-market directives to these authorities if the FCA has (1) an MoU relating to information-sharing with that non-EEA authority; and (2) assessed that the confidential information disclosed to that non-EEA authority will be subject to equivalent protections for confidential information as exist in the UK / EEA.

Examples of cooperation frameworks

- **Examples of supervisory colleges and/or crisis management groups**, consisting of different regulators involved in supervising large cross-border financial firms or conglomerates (having direct or indirect holdings or influence on the financial sector through shareholdings as well as large exposure), as a mechanism to mitigate potential risk (*Mexico, Dubai, India, Pakistan, Japan, Switzerland*).

- In Canada, a number of provincial securities regulators have put in place processes, such as multi-disciplinary internal teams and committees, to be in a better position to identify and monitor risks (including systemic risk). The Canadian Securities Administrators ("CSA") also formed a Systemic Risk Committee ("SRC") which is a standing committee with members from across the various provincial regulators. The SRC meets on a regular basis to discuss potential financial stability risks related to securities markets and potential regulatory gaps. In addition, Canada's securities regulators are in regular dialogue with the prudential regulator, central bank, and Federal Department of Finance regarding the stability of the financial system. These multi-agency discussions take place at both the executive and staff levels.

- In the EU**,** European Union securities regulators are members of the European Securities and Markets Authority ("ESMA"). Some members:

  - Participate in the preparation of the Risks, Trends and Vulnerabilities Reports prepared by the ESMA Committee on Economic and Market Analysis ("CEMA");

  - Participate in the ESMA Financial Innovation Standing Committee ("FISC") which is tasked with ensuring co-ordination and providing advice on financial innovation; and

  - Contribute to the Joint Committee of the European Supervisory Authorities' Sub-Committee on Cross-Sectoral Developments, Risks and Vulnerabilities (Risk Sub-Committee). The Joint Committee provides analysis of systemic risks with cross-sectoral implications and contributes to the coordination by the European Supervisory Authorities of the systemic risk assessment activities of the European Systemic Risk Board ("ESRB").

- The ESRB[25] is the EU level body established with a mandate to oversee risk in the financial system as a whole. It provides a forum for the exchange of information on market conditions and the sharing of risk assessments. The ESRB may develop recommendations and warnings. On September 20, 2012, the ESRB issued the first ESRB Risk Dashboard. This document consists of a set of quantitative and qualitative indicators in order to identify and measure systemic risk in the EU financial system. The document will be updated and revised on a regular basis.

- Australia and New Zealand have in place a bilateral MoU with respect to the identification of emerging risks. Australia has also initiated an informal process with peer regulators to discuss emerging risks.

- In India, the FSDC has formed the Early Warning Group ("EWG") with representation from financial market regulators including Ministry of Finance in order to monitor the early warning signals in the financial markets as also to precipitate quick action in the event of crisis.

- A number of respondents indicated that information sharing **amongst foreign regulators based on MoUs might be insufficient to deal with systemic risk.** This is because MoUs are generally focused on enforcement or supervisory issues and not on systemic risk. In addition, MoUs often do not focus on timeliness of information sharing.

- Some respondents stated that oversight committees in their jurisdictions have the power to issue **directions or recommendations** to regulators and/or market participants. A distinction can therefore be drawn between bodies which serve as forums for regulators to coordinate policy in areas of shared responsibility and bodies that have also been granted intervention powers.

Examples of oversight bodies with intervention powers

- In the United States, the Dodd-Frank Act established the Financial Stability Oversight Council ("FSOC") to "identify risks to the financial stability of the U.S.", "promote market discipline," and "respond to emerging threats to the stability of the U.S. financial system." The FSOC mandate includes: identifying risks to the financial stability of the U.S. that could arise from material financial distress or failure of large, interconnected bank holding companies or nonbank financial holding companies; or could arise outside the financial services marketplace; promoting market discipline by eliminating expectations on the part of shareholders, creditors, and counterparties of

[25] The ESRB is part of the European System of Financial Supervisors ("ESFS"), the purpose of which is to ensure the supervision of the Union's financial system. The ESRB is responsible for the macro-prudential oversight of the financial system within the European Union The European Supervisory Authorities ("ESAs"), also part of the ESRB, shall contribute to the short, medium and long-term stability and effectiveness of the financial system, paying particular attention to any systemic risk posed by financial market participants, the failure of which may impair the operation of the financial system or the real economy.

such companies that the government will shield them from losses in the event of failure (i.e., addressing the moral hazard problem of "too big to fail"); and identifying and responding to emerging threats to the stability of the U.S. financial system.

- In France, a new bill relating to the separation and regulation of banking activities was adopted by Parliament in July 2013. Among other things, it provides for the replacement of the National Council of Systemic Risk and Financial Regulation by a new High Council of Financial Stability which will have a mandate to preserve financial stability and conduct macro-prudential policy. In particular, it has:

    - Been given binding legal powers and the possibility of direct intervention; and

    - The possibility, on proposal of the Governor of the Central Bank, to raise the capital requirements for the banking sector as a whole, and to define criteria regarding the granting of loans.

Development of Organizational Expertise (Principle 6, Key Question 3)

- Respondents pointed to the development of expertise in relation to systemic risk in parallel to the development of these processes. Examples include the following:

    - Some respondents pointed to building specialized teams that supervise the individual firms that are considered systemically important. Teams are staffed with experienced people who understand the operational complexity and the methodological/ conceptual details and practical implications of the underlying businesses of these firms.

    - Others pointed to the establishment of research focused teams to comprehensively assess the risks that institutions face in the corresponding markets, and to transpose these risks into concepts and models in order to derive potential implications for the individual market players.

    - Some respondents pointed to improved knowledge about operational consequences should a crisis occur. The identification of systemically important functions/activities and knowledge about the underlying IT system landscape and its vulnerability is of importance, including mitigation and contingency planning.

Examples of processes

- The United Kingdom has systems in place to identify and mitigate the most significant risks, including those which may affect financial stability. All areas are involved in the identification of risks. These departments use various approaches, including macro-economic analysis of markets, and firm-specific financial/risk indicators, using statistical analysis of information gathered by the authority through the different regulatory reporting requirements imposed on firms, as well as publicly available data. Where required, the collected risk information is shared across different units of the authority. Each of the authority's business units have risk committees at both the divisional and business unit level and their risks are reported regularly to the Risk Committee of the Board. Reviews of thematic issues were carried out through a variety of specialist teams covering market and credit risks, capital management, insurance, macro-economic risks, capital markets, etc. Where issues of significance are identified, they can be raised for formal consideration through a risk committee, which has director level membership and, where appropriate, to the Executive Committee. In addition, supervisory defined stress test scenarios for insurers and banks were developed which allow common vulnerabilities to be identified.

- Japan and Switzerland mention that they conduct stress tests:

    - Among securities firms, as liquidity crises in the large securities firms may have contagious effects on other financial institutions. The regulator requires adverse scenarios that include downgrading of the assessed firm and assumption that the firm is required fire sales of non investment grade assets although currently liquidity of securities firms in Japan appears to be resilient. (*Japan*)

    - Performing a firm-wide stress test for two large banks on a semi-annual basis by applying a common adverse economic scenario. The scenario has to be applied by the banks comprehensively on a very granular level. Based on the results, conclusions can be drawn on whether these systemically important banks, in the event of such an adverse scenario, would be able to still cover the minimum required capital, or whether recovery actions would need to be triggered. Systemic risk arising from these firms are addressed by making them subject to stricter regulation, where more capital is needed to capture the systemic risk component, and where additional processes are required to prepare pro-actively for such an event (risk & recovery planning). (*Switzerland)*

(c) Regulatory actions and follow-up

- Most respondents stated that arrangements are rather new and have only recently been put in place and in some instances tools are still under development.

- Consequently, for the majority of respondents it is too early to demonstrate a **credible track record** of risks identified and actions taken as a result of newly implemented processes. Nonetheless, in some jurisdictions there are good examples of processes leading to significant regulatory action.

Examples of regulatory actions

- In the Netherlands, the AFM has recognized the risks related to valuation of commercial real estate, leading to assessment of the risks, coordination with national central bank, increased work on reporting standards and targeting of communication. In 2011, the AFM division responsible for financial reporting signalled substantial rumours of structural overvaluation of certain commercial real estate portfolios (i.e. the practice of forbearance was incorrectly applied). Firstly, based on assessment of the validity of the signal and due to the nature of the risks, it was decided to alert colleagues of the macro-prudential risk assessment team at the Dutch prudential regulator via fully operational communication channels. Due to the sensitive nature of the matter and the potential systemic impact, a careful approach was chosen, but eventually the problem was addressed in two ways. Secondly, an internal AFM project was initiated on issues surrounding forbearance, and active participation was sought in international work streams aimed at improving reporting standards in the area of forbearance. Thirdly, the risk was externally addressed by choosing the right timing, channels and manner of providing the market with much needed transparency about the issue.

- In France, in early 2010, the AMF identified, through the AMF Risk Committee, exchange traded funds ("ETFs") as a potential area of risk. An internal working group was set up to assess the possible risks in terms of investor protection and systemic risk. Observations from the operational divisions of the regulator were used, together with further analysis and studies. Several actions were taken, including policy actions at national level (publication of guidelines) as well as at regional and international levels (ESMA and IOSCO work), dedicated inspections, a change in reporting systems to better flag ETFs, educational efforts, as well as further research which was subsequently published. More recently, the AMF has been actively working jointly with the French prudential regulator ("ACP") on devising and proposing an appropriate regulatory framework in relation to "crowd funding" in order to address the potential risks posed by this innovative and non-traditional financing mechanism and to enable it to develop soundly without threatening investor confidence.

- In Italy, Consob identified automated and high frequency trading as a practice which may increase market volatility and tensions, separation of market prices from economic fundamentals, market manipulation and systemic risks. Consob was the first EU authority which promoted measures to contain these risks. In particular, in 2011 it solicited the Italian market operator Borsa Italiana to apply order-to-trade ratio fees, to limit the orders inserted by high frequency traders. Since then, the issue of automated and high frequency trading has become a topic of consideration more widely amongst EU regulators.

- In the UK, the new macro-prudential body, the Financial Policy Committee ("FPC"), monitors, as part of its mandate to identify and mitigate sources of systemic risk, the interconnectedness of the UK financial system, and where necessary uses its powers of Recommendation and/or Direction (e.g., through imposing stricter sectoral capital requirements on banks) to address any emerging risks. At its meeting in June 2013, the FPC agreed the following recommendation: "The Financial Conduct Authority ("FCA") and the Prudential Regulation Authority ("PRA"), with other Bank staff, should provide an assessment to the FPC of the vulnerability of borrowers and financial institutions to sharp upward movements in long-term interest rates and credit spreads in the current low interest rate environment." In addition and as a result of increased concerns highlighted by market participants about operational risk, including threats of cyber-attack, the FPC issued the following policy recommendation: "HM Treasury, working with the relevant government agencies, the PRA, the Bank's financial market infrastructure supervisors and the FCA should work with the core UK financial system and its infrastructure to put in place a programme of work to improve and test resilience to cyber-attack." [26]

[26] Detailed explanation about these policy recommendations is available at http://www.bankofengland.co.uk/publications/Documents/records/fpc/pdf/2013/record1307.pdf

(d) Improvements and strengths

- The primary improvements identified by participants in the Thematic Review were the **increased organizational focus** on systemic risks, which has:
  - Underlined and increased the focus on the importance of analysis based on reliable data;
  - Improved interaction with regulators in the same jurisdiction and or with regulators in other jurisdictions;
  - Further embedded in the organization, the risk assessment approach, the decision on actions and monitoring of mitigating actions; and
  - Resulted in more:
    - Preventative actions being undertaken (e.g. regarding highly complex products); and
    - Topics directly relevant to securities markets being considered as part of the work conducted in relation to financial stability (e.g. "shadow banking"[27], ETFs and high frequency trading).

Example of organizational focus on action driven risk supervision: "themes" based approach
• In the Netherlands, supervision by the AFM is based on a risk-orientated and problem solving approach. Risk-orientated supervision means that the AFM conducts market analysis and uses its analysis to formulate "themes" on the most important objectives for the exercise of its supervisory duties. The themes also include systemic risks. The AFM adjusts its priorities subsequently during the year on the basis of concrete evidence and experience. In practice, this risk-driven supervision means that the AFM has processes in place for: Collection of signals and (desk) research → Analysis of signals and developments → Identification of risks [projects, themes and theme plans] → Prioritisation of risks →Mitigation of risks.

(e) Challenges

- The Thematic Review identified a number of challenges that regulators face in implementing Principle 6. These challenges relate to the development of processes, cooperation arrangements, staffing and resourcing.

27 "The Financial Stability Board ("FSB") is currently using the term "shadow banking" to refer to market-based credit intermediation. This term is commonly employed and, in particular, has been used in G20 communications, but is not intended to cast a pejorative tone on this system of financing." (See fn 4 on p. ii of the "Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities," http://www.financialstabilityboard.org/publications/r_130829c.pdf)

Processes

- Access to relevant data is seen as key to building effective processes. Further improvement in access to **reliable and good quality industry data** is needed. An example is the need to collect data to fully understand counterparty exposures, required for the identification of the potential build-up of systemic risk at a global level that could have an impact on a jurisdiction's financial markets. Particular challenges include:
  - **Accessibility and processing of national data** from markets and financial intermediaries as well as foreign-source data related to globally connected markets and financial intermediaries (from foreign markets and on a globally aggregated level), particularly as the comparison of data is difficult;
  - **Data consistency**, which allows for straightforward aggregation within and between financial institutions;
  - Data availability in the **required frequency and granularity** to meaningfully monitor or model risk;
  - Further improvement of **analytical tools and accessible metrics** to measure build-up of systemic risk;
  - Improvements to existing common IT platforms allowing an efficient and secure data exchange with the other authorities to facilitate cooperation and coordination in supervisory activities; and
  - Creation of a single data warehouse allowing the full exploitation of the available information, in order to better monitor and analyze the financial system.

Cooperation and Coordination

- The main challenges identified were the following:
  - Differences in the regulatory approach amongst respondents with regard to **cooperation between or among authorities within a jurisdiction and with foreign authorities**. These observations highlight the importance of all regulators and agencies with responsibilities for supervising and regulating financial markets to understand each other's powers and regulatory approaches;
  - Coordination in the exercise of powers and regulatory and supervisory actions at the EU and international level. Taking uncoordinated actions at national level does not suffice, may be counterproductive and may be a source of regulatory arbitrage;
  - The need to formalize and improve communication channels at staff level with other (non-securities) financial regulators;
  - The risk of duplication and overload where regulators are involved in multiple risk identification exercises (e.g., at national, regional and international levels, within various systemic risk committees). Only effective cooperation may contribute to a reduction in this risk;

- The need to further develop collaboration with foreign authorities in managing, monitoring and mitigating systemic risk. This was seen as important in identifying spill-over effects of systemic issues that build-up in foreign jurisdictions.

Staffing and Resourcing

- The main challenges identified were the following:
    - Lack of adequately qualified **staff resources** for assessing systemic risk as a challenge and recognized the need to develop internal expertise; and
    - Need to support recruitment with comprehensive training programs on how to identify and manage risks.

4.3 Principle 7

(a) Framework for reviewing the regulatory perimeter

- Clarity around jurisdictional arrangements (in particular the distribution of powers and responsibilities of securities regulators and other regulatory agencies) is an important precondition to ensuring the regulatory perimeter is kept under constant and vigilant review. The importance of this was implicitly recognized in survey responses. Clarity reduces the risk of black spots or gaps falling outside the purview of any regulator. Clarity also gives industry and investors confidence that the regulatory system is sufficiently vigilant to the risks innovations and developments pose to the fairness and efficiency of markets, financial stability and investors. This clarity did not always exist.

- Responses indicated that **securities regulators' ability to review the regulatory perimeter** was based either on a mandate (explicit or implicit) to do so or on the fact that the regulator has the direct power to issue and amend rules as needed.

- Eight respondents indicated that they have an explicit power to review their regulatory perimeter and the power to issue delegated regulation when modifications to capital markets regulation are necessary. Others extract this power from the general legal provisions that enable them to issue and amend regulations.

- Three respondents stated that neither they nor other financial regulators in their jurisdiction have powers to review the regulatory perimeter with respect to securities markets.

Examples of powers of regulators derived from the general mandate

<u>Explicit</u>

- In Italy, Consob and the Bank of Italy are required, by law, to review the contents of their regulations at least every three years, in order to adapt them to the evolution of the interests of investors and markets conditions. This also entails a review of unregulated products, markets, market participants and activities.

- Out of the jurisdictions that have the power to review the regulatory perimeter, Pakistan also has the power to issue regulations pertaining to capital markets if the review of the perimeter shows the need.

<u>Implicit</u>

- The Netherlands has **processes in place for risk-driven supervision**. This means that, in practice, there is no division between the risks that lie inside or outside the regulatory perimeter. **Both risks inside and outside the perimeter** are identified when they appear to be relevant for the fair and orderly functioning of the financial markets and lie within the responsibility of the supervisor.

- In Jersey, the review is **triggered by a general guiding principle** which is in accordance with articles in the law requiring the regulator to reduce the exposure of the public to financial risk or financial unsoundness that could undermine the reputation and integrity of the financial markets.

- In Israel, the regulator's power to review the regulatory perimeter is **inherent to its authority**, as stipulated in the laws governing its areas of jurisdiction, alongside its authority to enforce these laws. On an informal basis, the regulator performs a regular review process, during which it examines market developments while considering the effectiveness of existing regulations and the need to modify them or adopt new regulations.

- In India, an Inter-Departmental Regulations Review Committee has been set up by SEBI, with the approval of SEBI Board, in July 2011 to make **rigorous and regular review of rules and regulations** in Indian securities markets to identify gaps and comply with relevant global standards.

Cooperation Arrangements

- Most respondents have cooperation arrangements in place to support reviews of the regulatory perimeter.

- Four respondents have in place specific inter-agency committees on the perimeter of regulation. In seventeen other jurisdictions, inter-agency committees exist with broad responsibilities including reviews of the regulatory perimeter. For instance, six respondents identified intra-agency cooperation in the review processes that appears to be dedicated to the identification of systemic risk matters.

Examples of cooperation arrangements

- In Europe, the national competent authorities participate in the preparatory work taking place within the EU for the drafting of the EU financial directives and regulations and contribute to the work of the European Supervisory Authorities (ESMA, EBA and EIOPA) to build a single rule book for EU financial markets and ensure its consistent application and supervision across the EU. The three European Supervisory Authorities form part of the Joint Committee which works to ensure cross-sectoral consistency and joint positions on other cross-sectoral issues.

- New Zealand's FMA is a member of the Council of Financial Regulators whose purpose is to share information, identify important trends and issues and coordinate response to those issues and ensure appropriate arrangements are in place to respond to events and developments.

- India has established the Financial Stability and Development Council ("FSDC") to institutionalize and strengthen the mechanism for maintaining financial stability, financial sector development and inter-regulatory coordination. There is an Inter Regulatory Technical Group ("IRTG") under the aegis of the FSDC Sub Committee which aims at enhancing the inter-regulatory coordination. Under the IRTG there are sub-groups for examining the various issues which includes enhancing the regulatory perimeter.

- In Canada, the Heads of Agencies (HoA) serve as a coordinating mechanism for financial system regulatory bodies, which allow federal authorities and provincial securities regulators to cooperate on issues that cross the regulatory perimeter.

- In a number of other respondents' jurisdictions, an inter-agency committee (or equivalent body or alternative mechanism, such as regulatory cooperation/coordination or international regulatory conferences) exists but is not exclusively dedicated to conducting a review of the regulatory perimeter. (*Australia, Brazil, Canada, China, France, Germany, Israel, Mauritius, Mexico, Netherlands, Pakistan, Portugal, Spain, Turkey, United Kingdom, and United States)*

(b) Processes and Approaches

Findings regarding the processes and approaches taken are organized below around the current Key Questions used in the IOSCO Methodology to support the implementation of Principle 7.

Processes to Review the Regulatory Perimeter (Principle 7, Key Question 1)

- All but four respondents indicated they have existing (or proposed) internal processes in place to regularly review the regulatory perimeter. Processes to review the regulatory perimeter are either formal or informal or a combination of both. Most respondents indicated that they have processes established as part of their overall risk framework. A few regulators indicated that they do not have existing or proposed processes to regularly review the regulatory perimeter.

- **Formal processes** include teams, divisions or committees within the organization. These bodies have been or will be constituted to deal with research on the regulatory perimeter, to identify gaps and to assess the impact of various alternatives.

- **Informal processes** include processes in which reviewing the regulatory perimeter is performed in the context of day-to-day work. One respondent referred to its process being informal as many of the perimeter discussions involve committees that have been formed for other reasons (i.e. broader policy development) and perimeter issues are a by-product of their work rather than a focus.

- Processes identified were either reactive or proactive.

Examples of reactive vs. proactive approaches

- For example, as a proactive approach, several respondents (*France, the Netherlands*) mentioned that the process of reviewing the regulatory perimeter is an **ongoing process** or stated that they conduct a review on a **periodic basis**. *New Zealand* specifically mentioned the proactive feature of its internal formal process to regularly review the regulatory perimeter. In the *United Kingdom*, as a result of an internal review to identify potential perimeter risks, the regulator is setting up a **process to capture on an ongoing basis risks which are outside its mainstream activities**, by introducing more proactive surveillance and/or coordination with other relevant domestic authorities, in addition to its overall risk process. This proactive approach will seek to identify emerging risks that could potentially affect the regulator and its ability to discharge its duties.
- In Canada a number of different techniques and criteria are used in monitoring the perimeter of regulation, including:

- Making extensive use of staff committees with specific areas of expertise to regularly monitor market developments and product innovation;

- Using compliance and review sweeps to better understand and identify novel developments and potential emerging regulatory issues;

- Creating internal emerging risk committees with responsibilities for identifying potential regulatory overlaps and gaps that may create undue risk to investor protection and to the integrity of our capital markets;

- Reviewing new rules regularly after they have been implemented to assess whether they need to be revised; and

- Reviewing exemptive relief applications to identify whether there are any new trends that require additional policy changes.

- As examples of a reactive approach, some respondents mentioned the reviews being performed **in response to changes** having been introduced in other jurisdictions or to developments in international standards.

- Eleven respondents mentioned the use of specific criteria for the purpose of the review of the regulatory perimeter.

- A few respondents identified top-down approaches with a large majority identifying bottom-up approaches.

Examples of bottom-up approaches

- In Luxembourg, the CSSF has put in place a quarterly reporting system under which information is communicated to the Executive Board under a bottom-up approach. In this report, the different units of the regulator, including the units involved in the supervision of securities markets, have to report tendencies and any significant events, as well as any specific dysfunctions identified by the officers within those different units during the past quarter. This reporting is seen as part of a data and information gathering process that constitutes the first step for the Executive Board to be in a position to consider the need for a review of the regulatory perimeter.

- In the United Kingdom, the FCA undertook a bottom-up internal review to identify potential perimeter risks and classify them by type, e.g., financial stability, halo issues, limited regulation, non-level playing field, one-step beyond services, regulatory ambiguity, overseas issues, split regulation, self-regulation, unregulated advice/information. As a result of the findings in this review, the FCA is setting up an internal function to proactively look at risks outside the regulatory perimeter that could impact on its statutory objectives.

- In France, the AMF established a Retail Investor Relation Division ("DREP") in 2010, in charge of monitoring marketing campaigns and new products offered to retail investors. The DREP is developing an important risk identification and analysis function from the perspective of investor protection, using insights from the AMF hotline, mystery shopping, advertising monitoring as well as the establishment of the savings observatory. This input is fed into the work of the different committees, and has been reflected in the 2013 AMF Annual Risks and Trends Mapping Report.

Examples of top-down approaches

- In Turkey, the CMB has a formal internal review process. In *Coordination Meetings*, the Chairman, Executive Vice Presidents and Department Heads come together regularly to discuss new developments in order to understand the need for new regulations or the needed amendments in existing regulations.

- As a top-down part of the combined approach, in Spain, the CNMV has regular meetings with market infrastructure providers and representatives of market participants, as well as annual meetings with the big four auditing firms to gather their view on potential risks.

- In New Zealand, the FMA's Emerging Risk Committee ("ERC"), comprising FMA senior management, considers perimeter risks on a regular basis. FMA's Financial Markets Risk Register - which includes a register of Perimeter Risks - is presented and discussed at each ERC meeting which is held at least quarterly.

- In Singapore, the MAS holds regular dialogue with the industry to better understand how the existing regulatory framework affects financial institutions, and to identify any emerging risks in the industry. In addition, regular scans of other jurisdictions' new regulatory policies or regulations are conducted to take stock of international developments. Through this regular industry dialogue and scans, staff will highlight key developments which may be of application to Singapore and consider specific issues which may be worth evaluating further.

Processes to review past policy decisions (Principle 7, Key Question 2)

- Eighteen respondents mentioned regular or periodical processes to **review past policy decisions**. Five respondents stated that these decisions are taken into consideration in a general regulatory perimeter review process and are not part of a special procedure. Only five respondents do not have existing or proposed processes to regularly review past policy decisions.

Examples of required policy assessment

- In Japan some laws include a review clause which requires responsible officials to review the laws within several years. This clause gives them the opportunity to consider and improve past policies on a regular basis. Moreover, all government agencies in Japan are **required by law to make a policy evaluation of the past major policies** and to publish the results of this assessment.

- In the United States, though not undertaken in the context of reviewing the perimeter of financial regulation, federal agencies are **required to review regulations that have a significant economic impact on a substantial number of small entities**. These assessments pursuant to the Regulatory Flexibility Act may result in the amendment or rescission of the rules if necessary to minimize any significant economic impact upon a substantial number of small entities and are in addition to other formal and informal processes the SEC has for regulatory reviews on an ongoing basis.

Processes to Monitor Unregulated Products, Markets, Market Participants and Activities (Principle 7, Key Question 3)

- Twenty-six respondents stated that they monitor unregulated products although no common approaches to doing so were identified.

- **Where they exist, processes to review unregulated financial products, financial markets, market participants and market activities** are handled by a specific committee or division, which actively monitors market developments in relation to unregulated products.

Examples of informal processes to review unregulated products, markets, participants and activities

- Regulators may not have a specific unit or office for this monitoring process. Japan mentioned that although it does not have any specific unit or office for monitoring unregulated financial products, financial markets, market participants, or market activities, they are included in the scope of its general market monitoring and it has an informal process in place. In practice, frequent internal meetings at senior level enable the agency to identify regulatory weak points.

- Five respondents mentioned that their **processes to review unregulated products are in line with their processes to monitor systemic risk**: the same committee tasked with identifying systemic risk is expected to identify risks in unregulated products.

(c) Regulatory actions and follow-up *(Principle 7, Key Question 4)*

- **Regulatory responses to the review of the regulatory perimeter** have tended to be driven by internationally identified topics (OTC derivatives, credit rating agencies, high frequency trading, etc.). There are also national examples where more *local* regulatory gaps have been identified.

- In **response to questions about the process for reviewing unregulated products and markets**, that pose (new) risks to financial consumers and financial markets but are not subject to **regulation/supervision or are not adequately regulated/supervised** twenty-three respondents mentioned that they can advise the government on possible actions and this may lead to new legislation or regulation.

Examples of regulatory actions

- When a regulatory weakness or risk is identified, ISA (Israel) indicated that it will **establish a working group** responsible for analyzing that risk, for examining the current regulatory framework and its effectiveness and for submitting recommendations.

- The FSMA (Belgium) mentioned that it pays particular attention to **financial innovation**, and seeks to better understand the potential risks associated with it. In the light of an emergence of risks on the domestic market associated with the distribution of structured products, the FSMA introduced a moratorium on the distribution of particularly complex structured products.

- The FCA (United Kingdom) has developed a **toolkit of actions to deal with risks outside the perimeter**, which include:

  - Direct communications and awareness raising – speeches, warnings, information and guidance on risks;

  - Change of law by making representations to financial authorities to bring a given activity inside the scope of the perimeter;

  - Change of rules and other regulatory requirements; and

  - Passing the issue on to other regulators/bodies if appropriate.

- In the Netherlands, the AFM makes use of so-called **letters of legislation**. This refers to a process implemented by the AFM, the central bank and the Ministry of Finance in which the regulators annually report the limitations they encounter in the regulatory framework to perform their duties. The Minister of Finance sends the letters of legislation to Parliament, together with his response to these letters and his future plans for regulation on financial supervision. The letters of legislation also serve as input for the Minister of Finance in his annual process of defining priorities for regulatory adjustments for the coming year. These letters are intended to improve transparency on the development of regulation and to allow Parliament to take notice of these responses.

- In Italy, in order to limit regulatory and product arbitrage and enhance investor protection in relation to products more difficult to understand, in 2005 the scope of the prospectus-related requirements was extended to any offer of financial products to the public. Moreover, the distribution and disclosure rules concerning financial instruments have been horizontally applied to financial products issued or distributed by banks and insurance undertakings.

(d) Improvements and strengths

- Most respondents work together with other agencies to deal with **unregulated areas**, and eight respondents mentioned this **cooperation as a strong point**. One of the respondents specifically mentioned the ability to work well with the finance ministry, central bank and other financial regulators, as well as its network and expertise regarding legislation and risk identification as strengths. Two respondents mentioned that cooperation allows them to respond quickly to issues at the perimeter. One securities regulator mentioned that its cooperation with the central bank was intensified due to recent developments, and an ongoing joint working group was established to deal with specific emerging issues.

- Improved cooperation was also recognized as a benefit of processes.

> **Example of trend scouting – regulatory perimeter**
>
> - BaFin (Germany) mentioned a working group consisting of intra-agency members from its units for investment firm and asset management supervision. They conduct "trend scouting" to better detect and evaluate current trends in engineering and distributing financial products. This process is conducted via an open-ended questionnaire to the industry (more details are set out above in section 4.2).

(e) Challenges

- The main challenge recognized in this respect is **the extent to which regulators should monitor activities that are outside their regulatory remit**. Although it is well understood that activities outside the perimeter can result in risks to consumers, as well as the financial system, there is a **balance** to be achieved between regulating activity inside the perimeter and how many resources should be dedicated to monitoring activities which are outside of a regulator's remit.

- It is generally challenging as well to consider what actions are possible or should be taken, as securities regulators typically do not have powers outside their regulatory remit/legal mandate. This may include a lack of budgetary or human resources devoted to processes to review the regulatory perimeter, unregulated products and markets or past policy decisions, but also a lack of expertise.

- Four respondents mentioned the challenge regarding their **limited powers to review the regulatory perimeter**.

- Respondents also identified the uncertainty within the organization as to what lies inside or outside the regulatory boundaries as well as the extent of powers to deal with perimeter issues.

- Some EU regulators mentioned that, while providing for a coordinated and harmonized environment ensuring a sound and safe single market, the EU legislative and institutional framework may appear to be a challenge because, in the financial sector, the vast majority of regulation is decided at the EU level, thereby reducing the capacity of Member States to act directly on those matters. Some EU regulators also mentioned that another challenge was the duration of the law-making process.

- Six respondents specifically mentioned **the dynamic way in which new international standards are being developed**. These standards, although not legally binding, can entail high (reputational) costs for jurisdictions where national standards do not conform to new international standards.

- Eight respondents mentioned that there is a **lack of internationally agreed and consistent definitions and methodologies** on processes to specifically monitor risks in unregulated financial markets and products.

- Another identified challenge is to **keep on top of market developments** that cannot be immediately or fully understood by regulators. Often, markets evolve faster than what regulators can reasonably be expected to monitor, especially in case of mandates and limited resources.

In the Netherlands, the AFM is facing challenges in communicating and defending its risk-driven/problem solving approach to the markets, since the approach implies that in practice there is no division between the risks that lie within the regulatory perimeter and the risks that are outside this perimeter. This has led to **discussions with market participants and legal counsel on the regulator's legitimacy to act outside its mandate**.

- Respondents identified **regulatory intelligence** as an area of challenge as well as of possible improvement.

4.4 Possible improvements to the IOSCO Methodology on Principles 6 & 7

Our analysis has pointed to the benefits of including further guidance based on evolving regulatory practice into the IOSCO Methodology. Respondents to the survey also made a number of other observations about additional improvements to be made to the Methodology of Principles 6 and 7. In addition, our analysis of responses and the practices identified pointed to the need for further granularity in the Methodology.

The IOSCO Methodology on both Principles 6 and 7 is considered by respondents to be rather general. Some respondents argue that it is too focused on structure instead of providing methods for identifying and monitoring (systemic) risks. Responses highlighted areas in which more detail might be of benefit.

The IOSCO Assessment Committee did not see it as its role to use the IOSCO Methodology to provide particular methods for identifying and monitoring systemic risk. The role of the IOSCO Methodology is to provide a high level basis for assessing implementation of the Principles – not to provide granular guidance on how each IOSCO Member may do this given its particular mandate or local market conditions.

We propose, in light of these comments, that respondents' observations and the high level recommendations made by the IOSCO Assessment Committee should be considered by the Implementation Task Force ("ITF") Sub Committee in their forthcoming review of the Methodology as it relates to Principle 6 and 7. The ITF Sub Committee should also take into account the work currently being developed by the Committee on Emerging Risks ("CER") on Guidance on Methodologies for the Assessment of Systemic Risk.

Respondent Observations

- A number of suggestions for further detail were specifically made by respondents about improvements to the IOSCO Methodology. These include the following:
  - Transmission/receipt of systemic risk in cross-border situations (relevant for a financial center) needs further elaboration in the current version of the IOSCO Methodology;
  - There is a need for international cooperation on the identification of systemic risk. The IOSCO Risk Outlook will serve in the future as a process to do so, but there is no information sharing MoU for systemic risk purposes or that could be useful specifically for emerging risks;
  - To develop criteria in identifying forward-looking tools to further monitor, mitigate and appropriately manage systemic risk. As a related point, there is a need for development of new tools to more systemically monitor the marketing and sale of both regulated and unregulated financial products;
  - There should be guidance on methodologies for systemic risk identification, monitoring and appropriate regulatory strategies; and

- The IOSCO Methodology currently focuses on processes and existing powers. Other aspects, such as availability of data and development and use of specific tools to address macro-prudential risks should be investigated.

Appendix 1 – List of the Review Team Members

Team Leader:

- Gert Luiting, AFM Netherlands

Members:

- Steven Bardy, ASIC Australia
- Todd Edwards, ASIC Australia
- Joanne Lim, ASIC Australia
- Julien Ruderman, AMF France
- Prasad Jagdale, SEBI India
- Maya Marinov-Schiffer, ISA Israel
- Hadas Yonas, ISA Israel
- Liza Teper, ISA Israel
- Yuji Baba, FSA Japan
- Laurent van Burik, CSSF Luxembourg
- Niels de Kraker, AFM Netherlands
- Emme van den Boom, AFM Netherlands
- Sarah Chorus, AFM Netherlands
- Ana Duarte, FCA UK
- Marie-Noelle Loewe, FCA UK
- Eric Pan, SEC US
- Sherman Boone, SEC US
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