Transparency of Structured Finance Products

Final Report

TECHNICAL COMMITTEE
OF THE
INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS

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CONTENTS

Chapter		Page
	Foreword	**3**
1	**Executive Summary**	**4**
2	**Objectives and Scope of this Report**	**[no.]**
3	**Background information about the Structured Finance Products market**	**[no.]**
	3.1 Nature of the market	
	3.2 Currently Little or No Post-Trade Transparency	
	3.3 Existing Pricing Mechanisms	
4	**Existing Post-Trade Transparency**	**[no.]**
	4.1 Potential benefits of post-trade transparency	
	4.2 Potential drawbacks of post-trade transparency	
5	**Evaluating benefits and drawbacks**	**[no.]**
6	**Recommended Approach**	[no.]
7	**Conclusions**	**[no.]**
	Appendix 1 – Feedback Statement	**[no.]**
	Appendix 2 – Responses Received	

Foreword

The International Organization of Securities Commissions (IOSCO) Technical Committee (TC) has been considering whether transparency of structured finance products (SFPs) is desirable, and if so, how increased transparency should best be implemented.

This Final Report sets out a number of factors that are designed to assist market authorities when considering how to enhance post-trade transparency of SFPs in their respective jurisdictions. The report lists the factors that market authorities should use in determining which structured finance products should be made transparent, and how this could best be implemented.

Chapter 1 Executive Summary

In light of the crisis in financial markets, the Technical Committee (TC) of the International Organization of Securities Commissions (IOSCO) mandated its Standing Committee on the Regulation of Secondary Markets (TCSC2) to examine the viability of a secondary market reporting system for structured finance products (SFPs), with a particular focus on the nature of the market and its participants as well as on the potential benefits and drawbacks of such a regime. In undertaking this task, TCSC2 solicited information from a variety of sources from the financial services industry across several jurisdictions. This final report follows the publication of a Consultation Report[1] on 16 September 2009 and the analysis of the responses received.

Most market participants took the view that a carefully developed post-trade transparency regime with a phased implementation would be beneficial to market efficiency. All respondents to the Consultation Report agreed that the level of post-trade transparency on any particular market needs to be carefully tailored on the basis of the characteristics of that particular market and the particular SFPs being traded.

In some other important ways, views from market participants varied considerably. In general, buy-side participants are supportive of increased post-trade transparency for SFPs. They expressed the view that increased transparency would assist them in valuing these products, and in general lead to an improvement in price discovery and liquidity. Buy-side participants were supportive of increasing trade transparency, starting with the most liquid and standardised SFPs, with further analysis needed by member jurisdictions before moving onto less liquid SFPs.

In contrast, sell-side participants raised some concerns about post-trade transparency in SFPs. While most sell-side participants agreed that post-trade transparency of some products could be beneficial, they stressed the need for regulators to carefully consider individual market characteristics before mandating post-trade transparency in even the most liquid SFPs. One of their primary concerns is that the non-standardised, complex and illiquid nature of structured finance products would make meaningful price comparability difficult or impossible. However some sell-side participants agreed that if carefully tailored to the particular product and market, and limited to the most liquid and standardised SFPs, increased post-trade transparency could be beneficial to market efficiency.

The TC recognises that there are divergent views about the merits of requiring enhanced post-trade transparency for SFPs, but nevertheless believes that greater information on traded prices would be a valuable source of information for market participants. The TC therefore recommends that member jurisdictions should seek to enhance post-trade transparency of SFPs in their respective jurisdictions taking into account the benefits of and issues related to post-trade transparency discussed in this report.

In the TC's view, member jurisdictions should work initially towards implementing post-trade transparency taking into account the factors mentioned below. To do this, member jurisdictions will need to gain a detailed understanding of how those factors apply in their market. Following the implementation of post-trade transparency for one or more particular types of securities, member jurisdictions should carefully analyse the impact of the transparency on the market for these SFPs, and look to extend post-trade transparency to other securities, when it deems it beneficial to do so.

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1 *Transparency of Structured Finance Products*, Consultation Report, Report of the Technical Committee of IOSCO, 16 September 2009 available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD306.pdf

2 *Report on the Subprime Crisis* – Final Report, Report of the Technical Committee of IOSCO, May 2008,

In the TC's view, it is appropriate for post-trade transparency regimes to be tailored to take into account the unique nature of the market and participants in each jurisdiction, and each member jurisdiction is best placed to judge the appropriate time, scope and manner for enhancing post-trade transparency.

The TC believes that enhanced post-trade transparency should be provided in the most cost-effective way reasonably possible, but should at the same time seek to avoid a negative impact on efficiency and liquidity of markets. The TC believes that it would be appropriate to develop a post-trade transparency regime that provides for the transparency of trade-by-trade data or aggregate data, depending on the liquidity of the particular SFP. Over time, member jurisdictions should seek to move to greater trade-by-trade transparency, where it believes that doing so would provide an overall benefit to the market without revealing a substantial amount of private information.

In light of the above, the TC believes that, amongst other things, member jurisdictions should consider the following factors when seeking to develop a post-trade transparency regime for SFPs:

- The degree of liquidity or secondary market trading for a particular SFP;
- The initial and outstanding amount of the issue;
- The rating of the issue;
- Whether the SFP was publicly offered or offered via private placement;
- Whether there is a broad investor base for the particular instrument;
- The degree of standardisation of a particular SFP;
- Costs of implementation of a post-trade transparency regime or costs of extending any existing post-trade transparency system to SFPs;
- Any appropriate time delays in publishing trade information;
- Whether to require the dissemination of trade-by-trade or aggregate trade information; and
- Thresholds with respect to the disclosure of trade volumes and further measures to help ensure anonymity of the market participants.

Chapter 2. Objectives and Scope of this Report

Mandate

In its *Report on the Subprime Crisis*,[2] published in May 2008, the TC found, *inter alia*, that the recent market turmoil had particularly affected the market in SFPs. In addition, in the Report of the Financial Stability Board (FSB)[3] on *Enhancing Market and Institutional Resilience*,[4] published in April 2008, the FSB recommended that securities market regulators work with market participants to study the possible scope of a comprehensive system for a post-trade transparency reporting system (price and volume) for credit instruments traded in secondary markets.

Following the publication of the FSB report, the TC mandated TCSC2 to examine, including pre-consultation with the financial services industry, the viability of a secondary market transparency system for different types of SFPs, focusing in particular on whether the nature of SFPs lends itself to such transparency and the costs/benefits such a system might entail.

One of IOSCO's 30 principles of securities regulation (set out in IOSCO's *Objectives and Principles of Securities Regulation*[5]) states that regulation should promote transparency of trading. It further states that ensuring timely access to relevant information is key to the regulation of secondary trading as it allows investors to better look after their own interests and reduces the risk of market manipulation. TCSC2 accordingly considered the application of this principle to the secondary market for trading in SFPs.

For the purposes of this Report, TCSC2 defined SFPs as financial instruments that are:

- based on a pooling of assets usually sold to a special purpose vehicle;
- the assets can be either cash instruments or credit derivatives; but the credit risk of the asset pool is de-linked from the originator or sponsor of the assets;[6] and
- there is also credit or maturity tranching of the liabilities backed by the asset pool.[7]

For the purpose of this report, SFPs include residential and commercial mortgage-backed securities (RMBS & CMBS),[8] asset-backed securities (ABS),[9] collateralised debt obligations (CDO),[10] collateralized loan obligations (CLO),[11] and asset-backed commercial papers (ABCP).

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2 *Report on the Subprime Crisis* – Final Report, Report of the Technical Committee of IOSCO, May 2008, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD273.pdf.

3 The FSB was previously known as the Financial Stability Forum (FSF).

4 *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience*, Financial Stability Forum, 7 April 2008, available at http://www.fsforum.org/publications/r_0804.pdf.

5 *Objectives and Principles of Securities Regulation*, May 2003 available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD154.pdf.

6 A defining feature common to many special purpose vehicles is that of bankruptcy remoteness, whereby a special purpose vehicle's assets are isolated from any creditors of its sponsoring firm should the latter go into bankruptcy.

7 Excluded are covered bonds, as their liabilities are not tranched, as well as certificates and other derivatives products, since they are linked to an underlying asset but not backed by a pool of assets.

8 A primary example includes agency RMBS, which are MBS issued by government-sponsored entities (GSEs) such as Fannie Mae and Freddie Mac or certain government agencies in the United States. Loans eligible for

The debate about the need for additional transparency for SFPs encompasses many dimensions, including transparency of the underlying assets, transparency of the structure of the product, firm-specific information about exposure to a specific product or asset class, trading transparency, and general information about the market. For the purposes of this Report, TCSC2 focuses solely on post-trade transparency for SFPs. However, TCSC2 recognises that other issues relating to transparency are important and may deserve attention in other fora.

Development of this Final Report

TCSC2's work in preparing this Report was informed by a range of meetings and presentations by industry representatives (including market data vendors) followed by a formal period of consultation after the release of the Consultation Report on 16 September 2009. A feedback statement that summarizes the public comments received is attached to this Report as an Appendix. In addition, TCSC2 conducted a survey of industry participants and market authorities[12] to:

a) Identify the types of SFPs that TCSC2 should focus on for the purpose of this project;

b) Identify the general regulatory approaches taken by TCSC2 members with regard to post-trade transparency of different SFPs in the secondary market;

c) Obtain information from the industry, especially any self-regulatory initiatives in this regard;

d) Seek the views of the industry and TCSC2 members on the key issues/challenges and costs/benefits arising from potential trade transparency for SFPs, focusing in particular on whether the nature of SFPs lends itself to such transparency; and

e) Obtain information from active market participants on the degree of secondary trading, both pre- and post-crisis, for SFPs.

TCSC2 received a total of 63 responses to the survey from industry and 17 responses from market authorities. Of the 63 responses from industry, 56 were from financial institutions (buy side and sell side), five from stock exchanges or market associations and two from market data vendors. TCSC2 also obtained clarification on a range of issues at an IOSCO TCSC2 Industry Roundtable held on 13 May 2009 (TCSC2 Roundtable). Participants included representatives from European trade associations, industry representatives (from the buy-side and from the sell-side) and data vendors. TCSC2 also received a written submission from a trade association.

GSE-issued MBS are also referred to as "conforming," and include prime RMBS and sub-prime RMBS (including UK non-conforming RMBS).

9 For example: credit card ABS, auto-loan ABS, student-loan ABS.

10 For example: cash CDOs, synthetic CDOs.

11 For example: cash leveraged loan CLOs, synthetic leveraged loan CLOs.

12 The term 'market authority' refers to the authority in a jurisdiction that has statutory or regulatory powers with respect to markets. Markets should be understood in the widest sense, including facilities and services relevant to debt securities. In addition to traditional stock exchanges, secondary markets should be understood to include various forms of off-exchange trading. The relevant market authority may be a regulatory body and/or a self-regulatory organization.

TCSC2 received 18 responses to the Consultation Paper. Of these responses, five were from financial institutions, 11 were from trade associations or securitisation forums, one from a market authority and one from a market data vendor.

Industry views expressed in this Final Report stem from the responses to the survey carried out by TCSC2,[13] the IOSCO TCSC2 industry roundtable, industry presentations provided during TCSC2 meetings and responses to the Consultation Report. As this was not a scientifically conducted survey or consultation process, those views should not necessarily be interpreted as representing the general view of all market participants.

Other relevant international work

In addition to TCSC2, which focuses on secondary market regulation, other international groups, including the TC Standing Committees and Task Forces are considering matters related to SFPs including issuer transparency, investor due diligence, fair market valuation, firm risk management and prudential supervision, and credit rating agencies. TCSC2 therefore monitored work undertaken by the other Standing Committees and Task Forces and any implications they may have for the completion of TCSC2's mandate on post-trade transparency of SFPs.

For example, IOSCO published in 2008 a report on the role of credit rating agencies in structured finance markets; and the Joint Forum published in 2009 a report on the use of credit ratings.[14] Moreover, in February 2009, the TC established a new standing committee on credit rating agencies (CRAs), also know as Standing Committee 6 (SC6). In May 2010, the TC published a consultative report written by SC6 entitled *Regulatory Implementation of the Statement of Principles Regarding the Activities of Credit Rating Agencies.*[15]

In late 2008, the TC set up a Task Force on Unregulated Financial Markets and Products. This Task Force examined two systemically important market areas, the securitisation process and the market for credit default swaps (CDS), and considered the appropriate regulatory action to improve transparency, efficiency, and market quality. The Task Force issued a final report in September 2009.[16] The final report recommends regulatory actions to assist financial market regulators in introducing greater transparency and oversight with respect to securitisation. The recommendations are aimed at mitigating wrong incentives, enhancing risk management and reducing the lack of transparency. The Task Force is carrying out further work on the implementation of the recommendations.

In April 2010, the TC published a final report entitled *Disclosure Principles for Public Offerings and Listings of Asset-Backed Securities,*[17] setting out disclosure principles applicable to listings and public offerings of asset-backed securities, defined for the purposes of that report as securities that are

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13 IOSCO Questionnaire for Industry Participants: Transparency of structured finance products in the secondary market.

14 *The Role of Credit Rating Agencies in Structured Finance Markets* – Final Report, Report of the Technical Committee of IOSCO, May 2008, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD270.pdf ; see also *Stocktaking on the use of Credit Ratings*, Report of the Joint Forum, June 2009, available at http://www.bis.org/publ/joint22.pdf?noframes=1.

15 Available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD319.pdf.

16 *Unregulated Financial Markets and Products* – Final Report of the Technical Committee of IOSCO, September 2009, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD301.pdf.

17 *Disclosure Principles for Public Offerings and Listings of Asset-Backed Securities* – Final Report, Report of the Technical Committee of IOSCO, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD318.pdf.

primarily serviced by the cash flows of a discrete pool of receivables or other financial assets that by their terms convert into cash within a finite period of time.

In July 2009, the TC published a final report on *Good Practices in Relation to Investment Managers´ Due Diligence When Investing in Structured Finance Instruments*.[18] That paper sets out five key points that firms should consider when assessing their due diligence policies and procedures with regard to the potential purchase of SFPs. Furthermore, the paper sets out three key steps which should generally be included in a due diligence process along with some good practices to be considered at each step. Finally, it deals with questions relating to the use of third parties in the due diligence process, including credit rating agencies.

A number of groups have undertaken similar analysis to assess whether there is a need to enhance post-trade transparency of securitised markets. For example, the Committee of European Securities Regulators (CESR) issued a report on the *Transparency of Corporate Bond, Structured Finance Product and Credit Derivatives Markets*[19] in July 2009 to address the recommendations of the FSB. CESR notes that, "Although insufficient post-trade transparency may not have been a key reason behind the recent market turmoil and that additional post-trade transparency would not be able to solve the different problems experienced in structured finance product and credit derivatives markets as a singular measure, CESR is of the opinion that post-trade information plays a role also in these markets. However, the appropriate level of transparency should be calibrated taking into account the relevant instruments, their trading methods as well as market participants active in the markets for these instruments". With respect to ABS markets, CESR is of the view that "greater post-trade transparency could assist with valuations of ABS and could generally provide greater transparency of market activity to assist with price formation." In its recommendations CESR calls for a harmonised European post-trade transparency regime for all ABS and CDOs that are commonly considered to be standardised and that in terms of implementation a phased approach should be adopted.

TCSC2 notes that several international industry groups – the Securities Industry and Financial Markets Association (SIFMA), European Securitisation Forum (ESF), American Securitization Forum (ASF) and Australian Securitisation Forum (ASF) – have set up a Joint Global Initiative in an attempt to help restore confidence in the securitisation and structured credit markets. The Joint Global Initiative made several recommendations for improving key market practices including independent third-party sources of valuation, reporting and disclosure practices for RMBS and enhancing transparency into the credit rating agency process. It also made recommendations for proactively guarding against future crises through education programs and the establishment of a Global Securitisation Markets Group to report publicly on the market.

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18 *Good Practices in Relation to Investment Managers' Due Diligence When Investing in Structured Finance Instruments* – Final Report, Report of the Technical Committee of IOSCO, July 2009, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD300.pdf.

19 *Transparency of Corporate Bond, Structured Finance Product and Credit Derivatives Markets*, Report of the Committee of European Securities Regulators, 10 July 2009, available at http://www.cesr-eu.org/popup2.php?id=5798.

Chapter 3. Background information about the Structured Finance Products market

3.1 Nature of the market

Where trading takes place

Trading for SFPs is nearly exclusively transacted on an OTC basis. While in many jurisdictions SFPs are also admitted to trading on a regulated or organised market,[20] trading rarely takes place on these markets.[21] In nearly all jurisdictions the predominant method of trading is still via traditional voice broking. However, a few jurisdictions reported that some SFPs are allowed to be traded on electronic trading platforms,[22] although this does not account for a significant market share.

Public offering v Private placement

In the United States, the offer and sale of many SFP related securities are registered with the SEC, sold in public offerings and publicly traded OTC. They are neither admitted to trading nor traded on exchanges. In addition, virtually all of the CDOs in the United States are offered and sold in exempt transactions without registration with the SEC and are instead privately placed.

In Europe, pre-crisis SFPs tended to be admitted to trading on regulated markets but traded OTC. The Irish Stock Exchange plays a key role in the listing of EU-originated deals, listing approximately 65-70% of all EU deals within the period 2001 to 2008. The Irish Stock Exchange also lists a significant number of US-originated deals, many of which are issued by Cayman and Delaware incorporated vehicles. Over 50% of such listings over the past three years have been for RMBS, with CMBS and CDOs collectively accounting for a further 30%. The majority of issuance in Europe is Euro-denominated and issued by special purpose vehicles (SPVs) mostly incorporated in Ireland or the Netherlands.

In the ABCP market, products are nearly exclusively offered by private placement. Whilst in some jurisdictions it is technically possible to admit ABCP to trading on a regulated market, in practice this is not the case as the shorter maturity of the product can make it financially prohibitive (exchange fees, legal fees, etc.) to admit the instrument to trading.

In Australia, based on estimates as at October 2009, the bulk of outstanding SFPs are RMBS (about 75% of the total) with CDOs (13%), CMBS (5%) and auto-loan ABS accounting for most of the remainder.[23] Almost all the CDOs and RMBS issued in Australia are issued via private offerings and traded OTC, although a proportion of the RMBS are listed on the Australian Stock Exchange to satisfy the eligibility requirements of investment mandates of institutional fund managers.

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20 For example, United Kingdom, Germany, Brazil, Switzerland, Australia, Italy and Hong Kong.

21 For example United Kingdom, Germany, and Australia.

22 For example the electronic trading platform established by Bursa Malaysia and Borsa Italiana.

23 Source figures from speck by Dr. Guy Debelle, Assistant Governor (Financial Markets), Reserve Bank of Australia, at the Australian Securitisation Conference 2009, Sydney, 18 November 2009.

Whether an SFP is admitted to trading or not can have implications for both on-going and initial disclosure as well as transparency requirements. There are generally no transparency requirements if an SFP is not admitted to trading on a regulated market.

Level of market activity

Respondents report that both primary issuance and secondary market trading of SFPs has declined significantly since the onset of the credit crisis. The primary issuance market in Europe remained closed end of 2008 in the sense that over 95% of all issuance in Europe in 2008 were retained only for repo purposes, notably with the Bank of England and the European Central Bank.[24] In the United States, primary issuance has restarted to a limited extent due to the Federal Reserve Bank of New York's Term Asset-Backed Securities Loan Facility (TALF) program.[25] Industry representatives consulted by TCSC2 indicated that new issuances in the first months of the TALF program were often oversubscribed, and expressed cautious optimism that the program would expand. Primary issuance in Australia has also slowed significantly in 2008 and early 2009 with the bulk of RMBS issued in the first half of 2009 being purchased by the Federal Government's Australian Office of Financial Management.[26] However, conditions in the local SFP market have improved significantly with more recent transactions being more widely supported by both local and international investors at narrower spreads.[27]

In terms of primary issuance by collateral type, the mortgage-backed securities (MBS) sector remains dominant. In 2008, over 83% of all primary issuance in the United States was for agency MBS while in Europe, RMBS accounted for 82% of all issuance.[28] In Australia, RMBS accounted for an estimated 86% of all issuance in 2009.[29]

There were only moderate levels of secondary market trading of SFPs before the onset of the credit crisis. SFPs are complex products with tailored cash flows that may not suit the needs of many investors.[30] Prudent investors with good risk management systems would be expected to conduct significant due diligence before purchasing, so that they can understand the features of the product (e.g., collateral composition, payout structure, credit enhancements, etc.). The expected need to conduct due diligence could be a significant factor in explaining the observed low level of secondary market trading (i.e., this might lead to a lower number of investors who are capable or willing to conduct the necessary due diligence). Moreover, having committed resources to perform the due diligence, purchasers are reluctant to sell into the secondary market, particularly in the near term. Thus, purchasers of SFPs frequently adopt a *buy and hold* strategy, even more so than purchasers of

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24 European Securitisation Forum (ESF) Securitisation data report (Q4 2008), available at http://www.afme.eu/document.aspx?id=2862.

25 The TALF program was created to help market participants meet the credit needs of households and small businesses by supporting the issuance of asset-backed securities (ABS) collateralized by auto loans, student loans, credit card loans, equipment loans, floor-plan loans, insurance premium finance loans, loans guaranteed by the Small Business Administration, residential mortgage servicing advances or commercial mortgage loans.

26 Reserve Bank of Australia Statement of Monetary Policy (May 2009).

27 Reserve Bank of Australia Statement of Monetary Policy (February 2010).

28 European Securitisation Forum (ESF) Securitisation data report (Q4 2008), available at http://www.afme.eu/document.aspx?id=2862.

29 Australian Securitisation News (Issue 411), Jan. 8, 2010 available at .

30 This is particularly the case for the ABCP market, which is regarded to have minimal secondary market trading.

other debt instruments. Anecdotal evidence from the survey undertaken by TCSC2 has sought to compare trading volumes from pre- and post-crisis.

The most notable conclusion that can be drawn from the survey is that aggregated traded volumes have retreated significantly for all sectors. Specifically, according to our survey results, declines in the mortgage-backed sector have averaged 45% for RMBS (both prime and sub-prime) with similar declines seen for CMBS. The picture is more mixed for the ABS sector, with average declines of 45% seen for credit-card ABS, whereas auto-loan ABS volume levels have slumped by 85%. However, student-loan ABS have increased on average by 33%. In general, declines in traded volume have been the greatest for the synthetic CDO and CLO sectors.

This picture is reinforced by information gathered from the UK Financial Services Authority transaction reports[31] for SFPs, which indicates that during the period 1 December 2008 to 29 May 2009, only 35% of the European population of SFPs[32] traded. In terms of trading frequency, 23.5% of those securities which did trade traded only once during this period and only 7% of securities traded at least once per week during this time.

Some attendees at the TCSC2 Roundtable noted a brief spike in trading activity in the first quarter of 2009. In their view, this appears to have been driven by forced selling to meet liquidity needs. The trading subsequently decreased as the market began to stabilize. Participants at the roundtable observed that, although there are some potential buyers in the market currently, most holders of SFPs are reluctant to sell. Respondents noted that this could be ascribed to a general belief that the hold-to-maturity value of many SFPs exceeds the value that could be obtained in the current secondary market. Selling into the current market would lock-in losses and could potentially erode the sellers' capital position.

Active market participants

The industry survey explicitly asked for information regarding the key participants active in the various SFP markets, both at the buyer and seller level. Responses to the questionnaire indicated that the breakdown of participants varies across sector. This breakdown has changed pre- and post-crisis.
In terms of active sellers, banks and funds (especially money markets funds/fund managers) seem to have dominated the SFP market pre-crisis. Some respondents thought that, post-crisis, the breakdown by seller type remained broadly the same.

Mixed views emerge regarding active buyers across the various sectors, but some respondents suggest that, before the crisis, banks and funds (especially money markets funds/fund managers) dominated the SFP market while post-crisis banks seem to have retreated from purchasing SFPs. Fund managers are now seen to account for greater market share, with hedge funds increasing their level of participation for some markets – such as the prime RMBS and CLOs markets.

For the ABCP market, key buyers were seen to be money market funds, banks, insurance companies, and dealers, with a prevalence of dealers and money market funds post-crisis. On the sell side, banks and large business enterprises and money market funds are seen as most active.

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31 This includes transaction reports from FSA-authorised firms as well as transactions reports for non-FSA-authorised firms trading in a security which has been admitted to trading on a regulated market.

32 This represents 4357 securities (issued in a European jurisdiction) representing all sectors and all ratings.

Wholesale v retail participation

The survey did not solicit information regarding the level of retail participation in the SFP market; and data is not readily available to quantify the extent of retail participation. However, the method of trading (i.e., primarily OTC), the complexity of the products, and the large average trading size strongly suggest that the SFP market is predominantly an inter-dealer market dominated by wholesale participants. However, some jurisdictions[33] do have some retail participants in this market, whether via direct investment in SFPs or indirectly (e.g., via funds).

Degree of product standardisation

SFPs tend to be highly complex products. Whilst there may be some degree of sector homogeneity, at the product level there is scope for greater differentiation. This is due to a variety of reasons including the way the product is structured, the composition of the collateral which backs the structure, performance features and the payment of cash flows. For example, some SFPs - such as synthetic CDOs, which are based on pooling of synthetic assets - may be characterised by a higher degree of complexity and tend to be bespoke.

The responses received to the industry survey do not provide a uniform view on the perceived level of product standardisation by asset class, which in itself serves to highlight a reduced level of product standardisation when compared to other assets which are traded on an OTC basis. Furthermore the perceived level of product standardisation can differ on a geographical basis within the same sector (e.g., UK prime RMBS v US prime RMBS).

Moreover, some respondents noted that, in Europe (in contrast to the United States) the perceived level of product standardisation is lower due to a large number of comparatively small markets impacted by their geographical location, e.g. by unique national laws and practices.

In terms of a consensus view, securities that are backed by credit cards, auto loans, and student loans are generally perceived to have a higher degree of standardisation. Varying views emerged with regards to mortgage-backed securities, with some viewing prime RMBS as having a relatively high degree of standardisation while others thought not. In contrast, sub-prime RMBS and CMBS were thought to have a lower degree of standardisation.

The CDO market and the CLO market are perceived to have a much lower degree of standardisation, with some products in these sectors seen as complex and bespoke.

The perceived level of product standardisation also varies by tranche, with the AAA tranche(s) perceived to be more standardised than the mezzanine or equity tranche(s).[34]

A more uniform view emerged regarding the degree of standardisation for ABCP, with this market generally perceived to have a higher degree of standardisation compared to some other types of SFP.
The degree of product standardisation also seems to correlate with its liquidity. More standardised SFPs, especially those backed by more homogenous collateral, generally are more liquid than SFPs that are bespoke, of lower credit quality or backed by heterogeneous collateral.

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33 For example, Italy, Spain, Canada, Brazil, Hong Kong, and Mexico.

34 Ratings are of course a major issue for many SFPs as they can have an impact on both pricing and liquidity. This paper, however, does not address the issue of ratings or the role of credit rating agencies in general as this issue has been addressed in other fora.

3.2 Little or No Post-Trade Transparency Currently

The vast majority of SFPs are not subject to any post-trade transparency regime.[35] In almost all TCSC2 jurisdictions, SFPs are mainly traded OTC and, with a few exceptions,[36] post-trade information with respect to those OTC trades is not publicly disseminated. Most jurisdictions indicated that they do have post-trade transparency requirements at exchange level if an SFP is listed and traded on an exchange. In addition, some jurisdictions indicated that post-trade transparency requirements would also exist for SFPs admitted to and traded on Multilateral Trading Facilities (MTF), Alternative Trading Systems (ATS), or Electronic Trading Platforms (ETP).[37] However, few SFPs do in fact trade on those markets, so few SFPs are subject to those markets' post-trade transparency regimes. There do not appear to be any initiatives by data vendors in TCSC2 jurisdictions to provide post-trade information to the public regarding secondary market trading of SFPs.

In the United States, however, the U.S. Department of the Treasury has specifically called for TRACE[38] to be expanded to include asset-backed securities.[39] In fact, in March 2010, the Financial Industry Regulatory Authority (FINRA) expanded TRACE to include debt issued by federal government agencies, government corporations and government-sponsored enterprises (GSEs), as well as primary market transactions in TRACE-eligible securities. With this expansion, TRACE broker-dealers will report and FINRA will disseminate to the public primary (with some exceptions) and secondary transactions in non-mortgage related debt instruments issued by U.S. federal government agencies such as Fannie Mae, Freddie Mac, Federal Home Loan Banks and Federal Farm Credit, among others.[40] Moreover, on February 22, 2010, the Securities and Exchange Commission approved FINRA rules expanding TRACE to include all asset-backed Securities (ABS), including mortgage-backed securities (MBS) and collateralized debt obligations (CDOs). Although not yet effective, FINRA would initially only collect ABS transaction data. After detailed analysis and observation of the market, FINRA would determine whether dissemination of ABS data is appropriate.[41]

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35 However, a large majority of TCSC2 jurisdictions (Brazil, France, Germany, Italy, Malaysia, Mexico, Spain, Switzerland, and the United Kingdom) reported that transactions in SFPs that are admitted to trading on a regulated market must be reported for regulatory purposes to the regulatory authority whether or not such transactions were carried out on the regulated market. In such cases, the information is used by market authorities to help maintain fair and orderly markets and to detect and deter insider trading, market manipulation, and other forms of fraudulent or abusive activity.

36 In Malaysia, all trades in SFPs that are traded on Electronic Trading Platforms or OTC must be reported to the exchange. In Australia and Hong Kong, only members of the exchange are required to report information. In Italy, intermediaries concluding transactions outside regulated markets, MTFs and systems operated by systematic internalisers are asked to make public post-trade information on SFPs admitted to trading on Italian regulated markets.

37 Italy, Malaysia, and Switzerland.

38 The Trade Reporting and Compliance Engine (TRACE) is a vehicle that facilitates the mandatory reporting of OTC secondary market transactions in eligible fixed income securities. TRACE was developed by the Financial Industry Regulatory Authority (FINRA), a U.S. self-regulatory organisation. All broker-dealers who are FINRA member firms have an obligation to report transactions in corporate bonds to TRACE under an SEC approved set of rules. TRACE became operational on July 1, 2002.

39 *See* U.S. Department of the Treasury, *Financial Regulatory Reform: A New Foundation*, http://www.financialstability.gov/docs/regs/FinalReport_web.pdf, at 45.

40 *See* SEC Release No. 34-60726; File No. SR-FINRA-2009-010 (September 28, 2009).

41 *See* SEC Release No. 34-61566; File No. SR-FINRA-2009-065 (February 22, 2010). TRACE reporting of ABS transactions would provide to FINRA trade prices, volume and other information. FINRA's ability to supervise

3.3 Existing pricing mechanisms

The price information used by industry participants for price discovery and valuation of SFPs is generally provided from a variety of sources. There is a generic valuation process applicable for SFPs which involves identification of the most recent market quote and comparing that quote to the investor's view of intrinsic value, taking into account risk and interest rate environment.

Industry responses to the TCSC2 survey provided some insight into the sources of pricing information used for SFPs. There are basically three different types of prices used by market participants:

i) Dealer quotes;

ii) Consensus-based prices; and

iii) Model-based prices.

Most participants will use a combination of all three of these sources in addition to internal valuation processes[42] to form their pricing of SFPs.

Industry participants also noted that they use prices at primary issuance for price discovery, particularly for student-loan ABS, RMBS and CMBS. However, the market turmoil and the retreat of market liquidity since mid-2007 have led to a decrease of issuance of new SFPs. Therefore, the usefulness of this as a source of price information may have been reduced.

Dealer Quotes

As noted before, trading of SFPs is nearly exclusively transacted on an OTC basis. As with other debt markets, price information is mainly provided by dealers. Dealer quotes are by far the most prevalent source of price information across all SFPs, with most respondents using this as their main source of price information.

Consensus-based prices

Consensus pricing services are offered in a number of jurisdictions by third-party data vendors and are used by financial institutions on a global basis. This source of pricing information is viewed by respondents as a valuable source of pricing data.

The data vendor receives end-of-day pricing contributions from a wide range of dealers. These prices are then subjected to a number of cleansing algorithms to remove stale data and outliers, with the final published price generally being an average of the remaining pricing contributions.

In the United States, consensus pricing is also available on a number of benchmark deals based on dealer contributions.

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the market would be enhanced through a better-informed surveillance program designed to detect fraud, manipulation, unfair pricing and other misconduct that violates U.S. federal securities laws and FINRA rules.

42 Factors relevant in scope of such internal valuation processes include: Assets in the portfolio, true sale or synthetic structure, seniority of the tranche (junior, mezzanine, super senior), interest payments, ratings, recovery rate, default probability, credit spreads, cash flow profile, currency risks, CDS indices.

Model-based prices

Pricing of SFPs that trade less frequently is driven more by model-based prices. Model-based pricing uses cash flow models, other inputs, and generic assumptions to derive a theoretical price. Generic assumptions may be gleaned from research reports or analyst insights for particular asset classes. This source of pricing information is particularly relevant for SFPs which trade infrequently.

The retreat of market liquidity since mid-2007 has led to an increased reliance on this type of pricing information.

Chapter 4 Enhancing post-trade transparency

Responses to the TCSC2 survey and Consultation Report provide some insight into the potential benefits and drawbacks of post-trade transparency. A feedback statement that summarizes the comments received is attached to this Report as Appendix 1. TCSC2 acknowledges, however, that it did not select potential respondents in a scientific manner and thus the description below of the summary results should not be viewed as representative of all market participants, particularly because the respondents who provided answers were self-selected. Caution should therefore be exercised when viewing the results of the survey because the views expressed may not necessarily be shared by other market participants. Given these limitations, it is nevertheless clear that some market participants, particularly on the buy-side, see benefits in post-trade transparency for SFPs generally. Of the sell-side respondents, nearly all opposed post-trade transparency for SFPs.

4.1 Potential benefits of post-trade transparency

Survey respondents identified a number of potential benefits associated with a post-trade transparency regime for SFPs.

Improved price discovery and reduction of information asymmetries

A number of buy-side respondents argued that asymmetries in information between the buy-side and sell-side[43] are putting buy-side participants at a material disadvantage. Increased post-trade transparency would reduce information asymmetries in that published prices would be increasingly available to all market participants. Some respondents claimed that the absence of post-trade information partially contributed to the recent dislocations in the SFP market.

The buy-side argued that one of the main benefits of post-trade disclosure would be improvement in the price-discovery process. Reduced information asymmetries could enable investors to have a better informed view of the market, potentially leading to more accurate pricing and appropriate spread levels. This in turn was seen as possibly having a beneficial effect on market liquidity. Some respondents were of the view that an improved price-discovery process would be of more use in developed SFPs markets.

While most buy-side respondents were in favour of trade-by-trade reporting of SFP transactions and saw this as the most helpful form of transparency, some were of the view that the release of aggregate trade data would still be beneficial for market efficiency. Some sell-side participants argued that only aggregate trade data should be released to ensure anonymity of market participants is preserved.

Valuation of products and portfolios

A large number of respondents argued that dissemination of post-trade information would help with portfolio valuation. It was felt that making information on traded prices and volumes publicly available could contribute to more accurate portfolio valuations and in turn support better risk management practices while assisting asset managers in complying with their fiduciary duties to their

[43] Some buy-side participants argued that as the sell-side is involved in a much higher number of trades than the buy-side and given there is little to no post-trade transparency, the buy-side has less information about the market for a particular security. They argued that this can negatively impact the price formation process.

clients. One respondent stated that increased transparency would encourage the improvement of valuation models and so would further improve valuations of SFPs.

Confidence in the market

As a result of these potential benefits, increased market confidence was also identified as a beneficial consequence of a post-trade transparency regime. Of the respondents that viewed post-trade transparency favourably, some believed that a post-trade transparency regime for SFPs could boost liquidity and help stimulate the market for SFPs. However, the majority of those who generally viewed post-trade transparency favourably thought that mandating such transparency at this time would have little or no impact on the secondary market for SFPs. Few respondents believed that the absence of post-trade transparency contributed to the financial crisis.

Involvement of other investor classes

Increased price and market transparency was considered a potential means to bring new investors to the SFP markets. A number of respondents argued that liquid markets were partly the result of low levels of information asymmetry, and so increased post-trade transparency would encourage new investors into the market, bringing liquidity to the market.

4.2 Issues related to post-trade transparency

Survey respondents identified a number of factors and potential drawbacks associated with a post-trade transparency regime for SFPs.

Inappropriateness given customised non-standardised nature of SFPs

Unlike equities and other classes of debt instruments, SFPs involve a large number of customised issues, many of which trade very infrequently. Standardisation of SFPs is difficult because of the range of issuers, the different kinds of underlying assets and the variety of different tranches created on individual pools. As a result, some respondents believe the benefits of a mandatory post-trade transparency regime are limited because it is not always possible to compare *like for like* (i.e. seemingly similar) transactions across a secondary market. That is, where SFPs in a secondary market are largely non-standard, similarities across products that can be used for comparison will be few.

Loss of confidentiality of positions and investment strategies

Some respondents believed that, due to the relatively small number of active participants in most SFP markets, post-trade transparency could result in participants' positions and/or investment strategies becoming identifiable. Most respondents argued that this meant any post-trade transparency needs to be carefully calibrated to ensure there is not an unreasonable loss of anonymity by increasing post-trade transparency. Consequently, liquidity could be further reduced if dealers become unwilling to commit capital if their trades are publicised. Some respondents argued that this should encourage the use of aggregate trade reports rather than trade-by-trade reporting.

Some respondents raised a related concern that mandatory post-trade transparency means other firms can view and take advantage of another firm's market making work by using the latter's published pricing as a starting point. This can reduce the original market maker's incentive to do fundamental research by reducing that market maker's upside potential. This could in fact make the market less

efficient if this reduces the level of fundamental research in what are generally complex and heterogeneous securities.

Inappropriateness given illiquidity of SFP markets

Most respondents are of the opinion that post-trade transparency is likely to be best suited to liquid SFPs with large and diverse pools of investors. Where the SFP markets are illiquid (or become illiquid) – with few investors, low volumes, and infrequent trading – post-trade transparency may not, in the view of some respondents, provide clear and consistent information that is needed for price discovery. One respondent argued that the buy-and-hold nature of a large number of SFPs means that transaction prices do not therefore constitute a valuable source of information.

One respondent suggested that indices such as ABX and CMBX, which are published daily, are used to address the heterogeneous nature and illiquidity of SFPs. These indices are used as proxies by investors to do a relative value pricing analysis on their own securities as long as the underlying or the components of the index are consistent with the SFP to be priced. However other respondents argued that these indices were of limited value in price formation given the limited liquidity of the index and low number of benchmark SFPs used in the indices.

Market distortion from transparency of distressed sales

Another commonly identified drawback was the scope for *fire-sales* or distressed sales to distort SFP markets by setting unrepresentative prices, especially when markets are illiquid. The publication of such distressed prices can in turn further depress prices, by drawing the market towards distressed prices, and lead to an increase in volatility. A few respondents noted that while the majority of investors follow a buy-and-hold strategy, publication of distressed sales prices of similar securities could create mark-to-market volatility (i.e., incorrect valuation of portfolios, inaccurate analysis of the risks involved resulting in a decision to trade out of these positions, etc.).

One respondent noted that it is difficult to determine whether a trade is distressed. To identify distressed trades, it is necessary to consider these trades in the broader context of other trades for related and comparable securities. Other respondents argued that with sophisticated and almost entirely wholesale market participants, it should be left to the market to determine whether a trade was distressed; and increased post-trade transparency would assist in determining this.

Costs of implementation

It was noted that post-trade transparency could potentially consume a large amount of resources for the development of systems and compliance monitoring. A concern was raised that, if brokers and sponsors of the deal are to be required to provide additional and/or regular information at an individual client level, higher fees would have to be charged to clients. Other respondents argued that the cost of implementation could be reduced by leveraging existing market infrastructure, and by ensuring that the level and method of post-trade reporting should be adapted for each SFP market segment and location.

More information on deal structures and underlying assets are needed first

A number of respondents stated that post-trade transparency would be less useful if it were not accompanied by increased transparency of the structure and underlying assets of SFPs. Additional information about the deal structure, the quality and performance of the underlying assets, and the

general availability and timeliness of such information was often cited as desirable. Increased transparency in these areas can complement post-trade transparency by enhancing the interpretation of post-trade information and helping restore investor confidence in more accurate valuations of assets.

Standardisation of SFPs

A number of respondents argued that steps to standardise the structure and release of information about SFPs was particularly important. Lack of standardisation makes comparisons between SFPs difficult, and would potentially limit the value of increased post-trade transparency. Some respondents argued that post-trade transparency should not be enhanced until there is greater standardisation across SFPs or at least classes of SFPs.

Chapter 5 Evaluating benefits of and issues related to post-trade transparency

The TC recognises that there are divergent views about the merits of introducing post-trade transparency for SFPs. For example, post-trade transparency generally might provide useful information about the overall direction of the market. Many respondents, however, have noted that in a crisis situation, trades in SFPs might be distressed sales and may not reflect true market conditions. These divergent views reflect, to a certain extent, the difficulties in assessing the correct balance between the potential benefits and potential drawbacks of any transparency regime.

In evaluating the potential benefits and drawbacks of a mandated post-trade reporting system, the TC has considered existing IOSCO principles.[44] In particular, Principle 27 states that "regulation should promote transparency of trading." In the Commentary accompanying the Principles for the Secondary Market, it is stated that:

i). *Regulation appropriate to a particular secondary market will depend upon the nature of the market and its participants*;

ii) *The level of regulation will depend upon the proposed market characteristics, including the structure of the market, the sophistication of market users and the types of products traded; and*

iii) *Post trade reporting and publication – information on completed transactions should be provided on the same basis to all participants. Full documentation and audit trail must be available.*

Transparency in general promotes several important policy aims. Transparency enhances investor protection by making it easier for investors to monitor the quality of executions that they receive from their intermediaries.

Transparency can also help to promote market efficiency. Inefficiencies can arise in the pricing of securities when market participants are unaware of others' trading activity. This is particularly the case in dealer-dominated markets where pre-trade quotation information, if it can be obtained at all, can be obtained only from a small number of dealers, thus leaving buy-side clients at an informational disadvantage. Post-trade transparency can reduce information asymmetries between dealers and buy-side clients. If trade prices are publicly known, buy-side market participants will be more likely to question if they are not obtaining prices similar to those at which executions have occurred in the past.

Post-trade transparency would assist in the valuation of SFPs. In the equity markets, for example, last-sale prices are frequently used as the basis for valuations. However, exclusive reliance on last-sale prices presupposes a liquid market where a sale can be viewed as reasonably representing the market's consensus view of a security's value. This may not be the case with SFPs, as secondary market sales may be extremely infrequent for many tranches of SFPs or because particular sales occur in highly individual circumstances. However, some post-trade information coupled with models-based pricing

[44] *IOSCO Objectives and Principles of Securities Regulation*, Report of IOSCO, February 2008, available at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD265.pdf.

might be more accurate than models-based pricing alone. Judgment must be exercised to avoid inappropriate reliance on last-sale prices in SFPs for valuation purposes.[45]

Industry participants have pointed out the need for greater standardisation of SFPs and of performance reports on the underlying assets which are being securitised. Whilst transparency of the underlying assets or deal structure is not within the scope of this mandate[46], the TC acknowledges that greater standardisation of SFPs and reporting and transparency of the underlying assets would contribute significantly to enhancing transparency of securitised markets.[47] The TC encourages existing industry initiatives aimed at bringing greater standardisation and transparency of the underlying assets.

The TC examined the potential costs of post-trade transparency in SFPs. These potential costs can broadly be placed into two categories:

1. Operational costs, i.e., those associated with developing and maintaining the systems and internal controls to support a post-trade transparency regime; and

2. Potential costs arising from altered market structure, i.e., a potential loss in liquidity if post-trade transparency caused dealers to reduce their activity in the SFP market.

With respect to operational costs, the TC notes that building a system for collecting and disseminating trade information from scratch could be costly. For example, development of the TRACE system in the United States cost several millions of dollars industry-wide. However, where post-trade transparency regimes are already established for certain kinds of products, such regimes could possibly be extended to SFPs in order to minimize such costs. Thus, extending TRACE to include SFPs would likely not entail the same degree of costs as the initial start-up. In developing a separate

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45 The reduction in market liquidity for certain SFPs significantly increased the amount of work and judgment required by financial statement preparers to estimate the fair value. In the U.S., for example, preparers needed to determine if observable pricing information reflected fair value as defined by FAS 157, or if observable transactions were the result of "fire sales" or distressed transactions. However, determining if a transaction is orderly or forced is a difficult task and requires significant judgment. To address the concerns of marketplace participants, the FASB issued FSP FAS 157-4 on April 9, 2009, which provided additional guidance on how to estimate fair value in markets that have become illiquid and identifying transactions that are not orderly. FSP FAS 157-4 reaffirms what Statement 157 states is the objective of fair value measurement—to reflect how much an asset would be sold for in an orderly transaction (as opposed to a distressed or forced transaction) at the date of the financial statements under current market conditions. Specifically, it reaffirms the need to use judgment to ascertain if a formerly active market has become inactive and in determining fair values when markets have become inactive. In addition, the International Accounting Standards Board (IASB) set out a three-phase project to replace its existing financial instruments standard (IAS 39). The IASB finished the first phase of the project in November 2009, when it published IFRS 9 on Financial Instruments. The new standard only rules the classification and measurement of financial assets, but new requirements for the measurement of financial liabilities (phase 1b), impairment (phase 2), and hedge accounting (phase 3) will be added by the end of 2010. Eventually, IAS 39 will be completely replaced by IFRS 9. As of the date of this report, the complete new standard is expected to become effective in the beginning of 2013.

46 As noted at the beginning of this report, IOSCO has examined this issue separately. *See Disclosure Principles for Public Offerings and Listings of Asset-Backed Securities* – Consultation Report, Report of the Technical Committee of IOSCO, June 2009, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD296.pdf.

47 The IOSCO Task Force on Unregulated Financial Markets and Products is currently examining ways to introduce greater transparency and oversight in unregulated financial markets and products and improve investor confidence in, and the quality of, these markets. A Final Report will be released in September 2009 which will make recommendations about regulatory approaches to be considered by national regulators and then implemented as appropriate with respect to securitisation and credit default swap markets.

trade reporting system for municipal bonds, U.S. regulators minimized the operational costs by using clearing information as the basis for the transparency regime.

To assess the possible market structure costs associated with post-trade transparency in the SFP market (or some subset thereof), the TC also took into consideration how the introduction of mandatory post-trade transparency through TRACE has affected the market in corporate bonds in the United States. The TC acknowledges that there are divergent views in relation to TRACE's overall effect. Nonetheless, the TC is of the view that experiences with TRACE could shed some light on potential effects of enhanced post-trade transparency in general.

As part of TRACE's establishment, independent economists were commissioned to test the effects of transparency on corporate bond liquidity. In their empirical study, Goldstein, Hotchkiss and Sirri (2006)[48] found that increased post-trade transparency has a neutral or positive effect on market liquidity. Further academic studies[49] suggest that trade execution costs for institutional transactions in corporate bonds were reduced after the introduction of transaction reporting for corporate bonds through TRACE.[50] Other studies[51] have found evidence of a *liquidity externality*, whereby the improved market quality in securities where there are reported prices improves market quality in similar securities that either have no reports or are not subject to the transparency regime.

However, some doubt remains about the effects of TRACE. For example, SIFMA has argued that the academic studies conducted to date examine only transaction costs, but not volume or other measures of liquidity. Maxwell and Bessembinder (2008)[52] report complaints, from both dealer firms and some of those firms' buy-side customers, that trading is more difficult because dealers are more reluctant now to commit capital to the market.

It is also unclear to what extent TRACE's experience is directly transferable to SFPs.[53] As discussed earlier in this Report, there are significant differences between corporate bonds and SFPs, in terms of the structure of the market, degree of standardisation and investor behaviour. It should also be noted that empirical studies of the impact of TRACE were carried out in a much different market environment. Two other factors could be taken into consideration that could help to limit the operational costs of introducing a post-trade transparency in SFPs.

A first factor in limiting the operational costs of a post-trade transparency regime for SFPs is the involvement of private sector data vendors. A post-trade transparency regime need not be operated as

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48 Michael A. Goldstein, Edith S. Hotchkiss, and Erik R. Sirri, "Transparency and Liquidity: A Controlled Experiment on Corporate Bonds," *Journal of Financial Studies* (2006).

49 Hendrik Bessembinder, William Maxwell, and Kumar Venkataraman, "Market transparency, liquidity externalities, and institutional trading costs in corporate bonds," *Journal of Financial Economics* (2006); Amy K. Edwards, Lawrence E. Harris, and Michael S. Piwowar, "Corporate Bond Market Transaction Costs and Transparency," *Journal of Finance* (June 2007); Amy K. Edwards and M. Nimalendran, "Corporate Bond Market Transparency: Liquidity Concentration, Information Efficiency, and Competition" (May 2007).

50 These studies do not take into account the initial cost of establishing TRACE or the ongoing cost of operating TRACE.

51 Hendrik Bessembinder, William Maxwell, and Kumar Venkataraman, "Market transparency, liquidity externalities, and institutional trading costs in corporate bonds," *Journal of Financial Economics* (2006).

52 William F. Maxwell and Hendrik Bessembinder, "Transparency and the Corporate Bond Market," *Journal of Economic Perspectives* (2008).

53 As noted above, the United States Department of Treasury has recommended that TRACE be expanded to include asset-backed securities.

a public utility on a not-for-profit basis. Market participants that effect trades in SFPs possess valuable information about those trades. Such market participants should not necessarily be required to disclose that information for free. The TC believes that a for-profit transparency regime can be consistent with the market benefits that post-trade transparency may provide. Under such a regime, jurisdictions should ensure, however, that post-trade data could be obtained by the public on terms that are fair and reasonable and not unreasonably discriminatory.

Secondly, a post-trade transparency regime need not include, particularly in its earliest stages, every tranche of SFPs. Indeed, given the sheer number of tranches, a system that attempts to include them all in the reporting regime from the start could prove difficult. Jurisdictions might conclude, therefore, that it is more practical to undertake initially a transparency regime for SFPs with only a limited number of products for which transparency is deemed the most beneficial.[54]

While dealer participation in the market might be expected to lessen when dealers do not have clear informational advantages over buy-side investors, a phased-in approach might show whether and to which extent the alleged drawbacks and benefits prove true. Moreover, market authorities should consider whether the reduction of informational asymmetries between the buy-side and the sell-side might encourage greater buy-side participation, and thereby offset any potential reduction in sell-side participation.

[54] TCSC2 notes that, in the United States, a post-trade transparency regime for corporate bonds that predated TRACE was limited to 50 non-investment-grade debt securities.

Chapter 6 Recommended Approach

The TC is of the view that, in accordance with Principle 27 of the IOSCO principles, there are overall benefits from enhancing post-trade transparency for SFPs. The TC therefore recommends that member jurisdictions should seek to enhance post-trade transparency of SFPs in their respective jurisdictions taking into account the benefits of and issues related to post-trade transparency discussed in this report.

The TC recognises that any post-trade transparency system should be tailored to take into account the unique characteristics of the SFP market in a particular jurisdiction. SFP markets are more developed in certain IOSCO jurisdictions than in others. In particular the degree of liquidity and standardisation can even differ across product classes even within a geographical location.

In seeking to develop an appropriate post-trade transparency regime for SFPs, member jurisdictions may wish to consider the following factors:

- The degree of liquidity or secondary market trading for a particular SFP.
- The initial and outstanding amount of the issue;
- The rating of the issue;
- Whether the SFP was publicly offered or offered via private placement;
- Whether there is a broad investor base for the particular instrument;
- The degree of standardisation. Factors such as the structure of the product and the homogeneity of underlying assets could be considered in determining the degree of standardisation; and
- The extent to which existing post-trade transparency systems could be extended to SFPs at reasonable cost.

With respect to the kind of information that usefully could be disseminated, IOSCO jurisdictions may wish to consider:

- Publication of trade-by-trade transparency information or publication of aggregate trade information (such as high, low, and average prices) on a periodic basis.
- Measures to ensure anonymity of the market participants;
- Reasonable delays before trading information is disseminated; and
- Publication of trade information without disclosing data relating to the volume of the transaction, possibly depending on a certain threshold.

The TC acknowledges that some member jurisdictions may find it helpful to consider other factors in determining how to enhance post-trade transparency. This could include consideration of the availability and quality of information about the underlying assets of SFPs through indices.[55]

The TC recognises that member jurisdictions have implemented different models for the publication of post-trade transparency for asset classes other than SFPs. Different models have their own merits and costs and each could serve to enhance post-trade transparency for SFPs. It is important that any transparency regime be delivered in a cost-effective way. Each member jurisdiction is best placed to determine itself what constitutes an effective way of implementing a post-trade transparency regime for SFPs. However members should attempt to leverage existing technology whenever practical and cost-effective.

Furthermore, individual member jurisdictions are best placed to judge the appropriate time and manner for enhancing post-trade transparency for SFPs in their respective jurisdictions. Thus, a jurisdiction may wish to consider phasing in post-trade transparency in stages, whether in terms of the number of products subject to the regime or the kinds of information disseminated, or both.

[55] An example is the introduction by Markit of its ABX indices, which track subprime RMBS prices, and the fact that market participants could write CDS based on the ABX indices. The CDS market allows market participants to express an aggregate view of the creditworthiness of US RMBS bonds and their underlying assets.

Chapter 7 Conclusions

The financial crisis has brought to light a multitude of issues, some of which are specific to the SFP market and others which are not. In undertaking its work to consider a post-trade transparency regime for SFPs, the TC has solicited information from a variety of sources across several jurisdictions.

Whilst a lack of post-trade information is not widely regarded as being a direct cause of the difficulties experienced by the SFP market, the absence of accurate information – both in terms of an efficient price formation process and for accurate valuations – has come to light. Currently, with a few exceptions[56], a mandated post-trade transparency regime for SFPs does not exist in member jurisdictions, although some pricing information on SFPs is available from a number of sources. Whilst there are divergent views on the possible benefits and drawbacks of a post-trade transparency regime, the TC believes that greater information on traded prices of SFPs is a valuable source of information for market participants. The TC therefore encourages each member jurisdiction to take steps towards enhancing post-trade transparency in its jurisdiction.

In reaching its view, the TC is mindful of IOSCO Principle 27 and the need for promoting transparency in the secondary markets. The TC acknowledges, however, the complexity of the SFP market and therefore the importance for each jurisdiction to consider what level of information might be appropriate to disclose, bearing in mind the characteristics of the market in question and its participants.

[56] Italy and Malaysia.

APPENDIX 1

Feedback Statement on the Public Comments Received by the Technical Committee on the *Consultation Report on Transparency of Structured Finance Products.*

I. Background

Standing Committee 2 (TCSC2) initiated a review of the transparency of structured finance products (SFPs) in the secondary market following the recommendation made by the Technical Committee (TC) in its *Report on the Subprime Crisis* "to examine, together with the financial service industry, the viability of a secondary market reporting system for different types of structured finance products (SFPs), focusing in particular on whether the nature of structured finance products lends itself to such reporting and the costs and benefits such a system might entail".

I.A. Results from the fact finding and the industry roundtable

In 2008, TCSC2 agreed that a questionnaire should be sent to industry representatives and to regulators in each jurisdiction. The purpose of the survey was to obtain a full picture of the market for SFPs and, in particular, to:

- determine which SFPs should be focused on;
- obtain a better understanding of the current secondary market structure; and
- obtain views as to whether and how secondary market transparency in these products could and should be improved.

TCSC2 received over 60 industry responses to the survey from Asia, Europe, North America and South America. In order to more widely consult the financial services industry, TCSC2 also invited some industry representatives to its meetings held last year. The industry roundtable provided useful background on new issues in SFP markets and secondary market activity more generally.

I.B. Summary of the Consultation Report

TCSC2 produced a consultation report, *Transparency of Structured Finance Products*, that was approved by the TC and published on 16 September 2009. The consultation period ended on 13 November 2009.

Non-confidential responses were submitted by the following organisations to IOSCO Technical Committee (TC).

American Securitization Forum (ASF)
Association for Financial Markets in Europe/European Securitisation Forum (AFME/ESF)
Association Française de la Gestion (AFG)
Australian Securitisation Forum (ASF)
Aviva Investors
Axa Investment Manager
BlackRock Solutions

Bundesverband Investment und Asset Management e.V. (BVI)
European Fund and Asset Management Association (EFAMA)
Federation Bancaire Francaise (FBF)
Financial Industry Regulatory Authority (FINRA)
Interactive Data Corporation
International Banking Federation (IBFed)
International Capital Market Association (ICMA)
International Council of Securities Associations (ICSA)
Securitization Forum of Japan
Zentraler Kreditausschuss (ZKA)

These responses can be viewed in Appendix B of this document.

The Technical Committee took these responses into consideration when preparing this final report. The rest of this section reports on the main points raised during the consultation.

This report set out a number of factors to be considered by market authorities when considering any enhancement of post-trade transparency in their respective jurisdictions. In the TC's view, each member jurisdiction is best placed to judge the appropriate time, scope and manner for enhancing post-trade transparency for SFPs in their particular market. Inter alia, it may be appropriate in some jurisdictions to introduce post-trade transparency via a step-by-step or phased-in approach.

The Consultation Report highlighted a number of factors to be taken into consideration when seeking to develop a post-trade transparency regime for SFPs. Depending on how the market in SFPs develops and future initiatives and experiences of member jurisdictions to implement greater post-trade transparency of SFPs, each market authority should consider increasing the level of post-trade transparency.

II. Summary of the responses to the Consultation Report

This Feedback Statement summarizes respondents´ comments, including excerpts from responses in order to further illustrate the comments and the TC’s response to such comments.

The comments received convey contrasting positions regarding the key question of whether enhanced post-trade transparency of SFPs would boost or in fact impair liquidity in these markets, although a consensus appears to have developed that some post-trade transparency may have utility. Buy-side participants generally believe increased post-trade transparency in SFPs would be helpful for valuation and price discovery purposes, which would lead to an increase in liquidity in SFP markets. Interestingly, the sell-side did not collectively exclude the possibility that post-trade transparency for secondary market trades in SFPs may be beneficial. The sell-side did, however, emphasize the potential difficulties in implementing a post-trade reporting regime. For example, sell-side participants argue that increased post-trade transparency in relatively small and illiquid markets puts at risk the anonymity of market participants and the confidentiality of their trading strategies. In addition, some respondents raised as a concern the lack of standardisation of SFPs. Also, many comments raised the point that data underlying SFPs is more important than post-trade transparency. This is, however, not a condemnation of post-trade transparency per se, but a recognition of its limitations.

II.A. General Comments

TCSC2 received eighteen responses to the consultation report from a broad range of industry participants. Buy-side participants, including trade associations and investment managers, sent seven responses to the Consultation Report, five responses came from sell-side trade organizations and four from sell-side securitisation forums. In addition, two responses were provided by other types of organisations.

- Buy-side organisations generally agreed with the points outlined in the Consultation Report and were in favour of greater post-trade transparency
  Most of the respondents were in favour of a phased implementation of increased post trade transparency. These respondents have suggested that post-trade transparency should initially be enhanced on the most liquid SFPs. Liquidity of a particular security should be based on a number of factors, including its rating (higher-rated tranches are usually more liquid), size of issue, public vs. private initial offering, standardisation of offering and the name of the issuer (more well-known names tend to be more liquid).

  A majority of respondents argued that trade-by-trade data is necessary in order to gain the most value from post-trade transparency, however a minority are comfortable with the release of aggregate data on a periodic basis.

- Sell-side and other trade organizations were divided on the usefulness of post-trade transparency.
  Some respondents voiced opinions questioning the usefulness of post-trade transparency, while two did not directly voice an opinion. Several respondents expressed concerns that letting jurisdictions develop their own post-trade transparency regimes would lead to regulatory fragmentation and increased compliance costs. One respondent has also expressed the view that a transparency analysis is not possible until a systematic data collection regime has been implemented.

- Securitisation Forums were generally in favour of enhancing post-trade transparency for SFPs in their respective jurisdictions and agreed that any post-trade transparency system must be carefully tailored to the unique characteristics of the SFP market in each jurisdiction. They rejected a "one size fits all" solution and favoured phasing in post-trade transparency in stages.

II.B. Benefits of enhanced post-trade transparency (Section 4.1 of the Consultation Report)

Improved price discovery and reduction of information asymmetries

Some respondents focused on the information asymmetry between the buy-side and sell-side. One respondent noted that sell-side sees a much larger volume of trading, and can use this information to the detriment of the buy-side. Another respondent argued that the lack of post-trade transparency helps to extend the market dislocation that recently occurred, as participants were fearful of being gamed by other market participants and had no way of determining market prices.

One respondent stressed that an analysis should be done to ensure that regulatory objectives/benefits are appropriately balanced with market quality objectives. This respondent stated that some potential benefits include: (i) the ability to monitor quality and consistency of executions as well as valuations; (ii) the ability to monitor for risk build-ups at specific firms; (iii) the possibility to identify and study apparent correlations and/or market impacts between trading of a particular SFP and another product; and (iv) the ability to develop an audit trail of transactions to detect instances of market abuse. This

respondent also stressed the value in conducting studies during times of market stress as well as during more normal periods.

One respondent supported the publication of trade information on a periodic basis and further supported the use of time frames similar to those contained in the FINRA TRACE feed and Xtracter TRAX feed (intervals of less than one hour).

Valuation of products and portfolios

One respondent stated that the report should more directly address the accounting issues that could arise if post-trade transparency regimes are mandated, such as the use of prices available through reporting systems when such prices may not be an accurate reflection of current market values.

On the other hand, one respondent noted the current difficulties faced in making mark-to-market valuations of SFPs, and argued that increased post-trade transparency would encourage improvements in valuation methodologies, while another mentioned the importance of prices for risk management processes. One respondent noted that the difficulty in valuing SFPs is making it more difficult for asset managers to comply with their fiduciary duties. Another respondent stated its belief that post-trade transparency would facilitate the price discovery process and would assist those who prepare financial statements in meeting reporting and disclosure requirements.

Involvement of retail investors

Most respondents did not comment on steps to introduce retail investors into the market for SFPs. Most argued that greater transparency of SFPs would encourage wider participation generally by improving confidence in the market and attracting new investors.

Nevertheless, one respondent expressed the concern that volatility in valuing SFPs could result from the increased participation of retail investors, who may not fully understand the nature of these securities.

II.C. Costs of enhanced post-trade transparency (Section 4.2 of the Consultation Report)

Inappropriateness given customised non-standardised nature of SFPs

While one respondent stated that due to the lack of comparability across SFPs, post-trade information on SFPs is irrelevant, another respondent commented that even with the non-standardised nature of SFPs, post-trade data is useful as securities with similar features can assist in the valuation of securities. Another respondent argued that buy-side and sell-side market participants can distinguish between different securities and understand their individual nuances.

Two respondents noted that few SFPs in their jurisdictions are truly standardised. For transactions involving non-revolving discrete asset pools, the performance of these discrete assets may vary significantly, impacting the cash flow available to investors and therefore the value of the SFPs. However, these two respondents believed that improvements in the standardisation and quality of information regarding the assets underlying the products are essential in restoring liquidity and confidence in the SFP markets. However it is unclear how relevant this is to post-trade price reporting.

One respondent stated that standardization of SFPs is mainly a business-driven process that may happen over time. This respondent further noted that undue levels of standardization, disclosure, or post-trade infrastructure may render secondary markets inefficient. This respondent believed that any industry-driven (or regulatory) solution needs to be sensible for the particular market and product.

Usefulness of indices

Two respondents indicated they were unclear as to how indices would provide appropriate signals to market participants regarding the value of their underlying exposures.

Inappropriateness given illiquidity of SFP markets

Several respondents commented that illiquidity in the market is a legitimate concern, and that post-trade transparency regimes should not further reduce market liquidity. Such regimes should avoid the exposure of principal positions and should not discourage market-making in the products. In addition, one respondent expressed the view that post-trade transparency regimes should be gradually phased-in, focused first on the most liquid instruments, and calibrated to ensure that liquidity is not adversely affected.

Two respondents expressed the view that regulators should develop a better understanding of the liquidity characteristics of the SFP markets by observing, collecting and sharing with the industry, data on trading volumes and patterns before any implementation of a post-trade transparency regime. This is because liquidity varies across SFP products both in a single jurisdiction and across jurisdictions. For less liquid issues, trade prices may be weeks or months old and may not be a good indicator of the current value of a security.

One respondent noted that the nature of liquidity in SFPs is different from that found in equity and other bond markets. This respondent stated that most investors in securitisation markets apply a "buy and hold" strategy. Another respondent agreed with the report that purchasers of SFPs frequently adopt a buy and hold strategy and that trading in SFPs is nearly exclusively transacted on an OTC basis. This respondent further stated that some SFPs are traded in conditions in which transaction prices do not generally constitute a valuable source of information. While there may be some SFP markets where secondary information does exist, the degree of secondary market trading is the most important criteria for jurisdictions seeking to develop an appropriate post-trade transparency regime.
In addition, another respondent stated that the buy and hold strategy is a common investment style in its jurisdiction, due in part to the lack of suitable securities for substitution. With few secondary market transactions and lack of timely information on underlying assets and deal-specific conditions, the appropriateness of disclosed market prices may be impossible to judge.

Market distortion from transparency of distressed sales

One respondent argued that investors do not need to rely on others to interpret a trade as distressed, but can determine it based on their own valuation methods. This respondent argued that determining whether a particular transaction is a distressed sale should be easier with increased post-trade transparency.

Loss of anonymity

One respondent raised the concern that where the investor base is small, post-trade transparency may compromise the anonymity of transaction participants and hence be detrimental to liquidity.

Preserving the anonymity of activities, portfolios and investment strategies of participants is therefore essential. Another respondent did not recommend the publication of individual trade information as this would be likely to reveal individual traders' positions. This respondent also favoured publication of aggregate trade data (for example average prices), no disclosure of trade volumes and reasonable delays to the dissemination of data to protect anonymity.

In addition, one respondent expressed its concern over a potential decline in liquidity as sellers would worry that published prices might induce the market to assume the seller has liquidity constraints.

Costs of implementation

Respondents have generally argued that the direct costs of increased post-trade transparency would be low as existing infrastructure could be used to collect and disseminate post-trade data. In any case, respondents argued that the costs would be trivial in comparison to the size of the market, and that the benefits of the increased post-trade transparency would far outweigh the costs.

One respondent raised a concern that substantial costs may be incurred in building a post-trade transparency system from scratch. This respondent also argued that the 'financing cost' on the part of the originator/sponsor should also be considered, that is, the expectation of raising money at a lower cost as a result of transparency may not be realised leading to the feeling that the system is ineffective.

Another two respondents directly addressed the issue of costs of implementation and generally believed that existing reporting mechanisms could be leveraged to mitigate cost burdens. One respondent stated that the optimal approach need not be “one-size-fits-all.” This respondent believed that large volume firms could build on existing vendor services whereas web-based reporting may be more appropriate for low trade volumes. In addition, this respondent stated that savings will result from a reduction of market abuses through enhanced market surveillance.

Two respondents believed that to reduce costs, it is important to have a clearly defined universe of reportable securities and to draw on available central sources of information (especially from regulators). Both respondents stated that the impact of the cost of implementation on the market should consider positive impacts (increased investor participation and trading volumes, compression of bid-ask spreads) as well as negative impacts (reduced willingness of market makers to commit risk capital).

More information about the underlying assets is needed first

One respondent stated that transparency of assets underlying the SFPs should be enhanced before any additional post-trade transparency. Same respondents stated that post-trade transparency should be secondary to standardisation of the products.

Another respondent added that the value of any post-trade transparency regime is a consequence of robust, liquid secondary markets where products are traded with sufficient frequency to make post-trade price reporting relevant. This same respondent added that prior to the implementation of a post-trade transparency regime, an assessment of the depth and maturity of SFPs’ secondary markets and level of standardisation is required. This respondent believes that a post-trade transparency regime does not create liquid and robust secondary markets.

Global consistency

Two respondents noted that a degree of consistency across jurisdictions would be desirable to avoid regulatory arbitrage.

II.D. Additional issues

A number of respondents have argued that the scope of the IOSCO review should have been broader - looking also at what steps can be taken to encourage greater standardisation across SFPs. One respondent stated that post-trade transparency should apply to all cash and synthetic products as long as they are listed on an exchange, while another stated it should apply to all securitised products without regard to jurisdiction.

A number of respondents argued that the IOSCO paper should also have considered the transparency of the SFPs deal structure, underlying assets and data availability over the life of the asset. Some respondents noted that regulators need to be conscious of the possibility of fragmentation of the data, and whether this would result in higher costs for market participants.

Some respondents stated that certain distinctions need to be made when examining SFPs. One respondent stated that a distinction should be made between securities and other structured products such as warrants and certificates. Another respondent noted that a distinction should be made between publicly placed products and others, with post-trade transparency most relevant for publicly placed products.

II.E. Proposed Approach (Section 6 of the Consultation Report)

All respondents from buy-side organisations agreed with the factors listed in the Consultation Report as needed to be considered in the development of a post-trade transparency regime. Most respondents argued for a step-by-step approach, with initially only the most liquid securities (such as the highest-rated tranches of well-known securitisations) made post-trade transparent. However many respondents pushed for this list to cover as many securities as practical.

One respondent added as a factor the workability of the proposals in ensuring the data can be collected across a wide range of products and that systems can be extended to produce this information. This respondent is concerned that the proposals not be so onerous that they deter market-making. A majority of respondents argued that it was necessary to disclose trade-by-trade data, while a minority proposed the release of aggregate data.

Finally, one respondent from a sell-side organization stated its support for creating a label of transparency and liquidity and that such a label: (i) should remain market driven; (ii) stay light in its conception and in its functioning; and (iii) be designed and supported at an international level.