April 1, 2013

By Electronic Submission

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Re: **Notice of Proposed Rulemaking, Credit Risk Retention**
SEC (Release No. 34-64148; File No. S7-14-11); FDIC (RIN 3064-AD74); OCC (Docket No. OCC-2011-0002); FRB (Docket No. 2011-1411); FHFA (RIN 2590-AA43); HUD (RIN 2501-AD53)

Ladies and Gentlemen:

The Loan Syndications and Trading Association ("LSTA")[1] is pleased to submit these third supplemental comments in response to the joint Notice of Proposed Rulemaking, 76 Fed.

[1] The LSTA, founded in 1995, is the trade association for the syndicated corporate loan market and is dedicated to advancing the interests of the market as a whole. The LSTA is active on a wide variety of activities intended to foster the development of policies and market practices designed to promote a liquid and transparent marketplace. More information about the LSTA is available at www.lsta.org. This comment letter was prepared in consultation with the LSTA's CLO Committee, which includes representatives of institutions active in the CLO market as investors, asset managers, and underwriters.

Reg. 24090 ("NPRM"),[2] concerning risk retention and the implementation of Section 941 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act").

These comments respond to the invitation of Commission staff to provide more information regarding a credit risk retention structure that managers of Open Market CLOs could adopt that would clearly satisfy the Dodd-Frank Act statutory standard assuming that it applied to CLO managers.[3] The proposal outlined below readily meets the statutory standard and could be implemented through minor revisions to the proposed rules, as described below. Even if the agencies disagree with that conclusion as a matter of statutory construction or rule formulation, the proposal also sets forth the conditions that would clearly warrant a grant of an exemption pursuant to Section 941(b) of the Dodd-Frank Act. Certain concepts underlying the proposal were, like the additional legal points the letter elaborates, noted in prior LSTA submissions in a less detailed form. *See* LSTA 2011 Letter at 4–7, 14–17.

The LSTA submits this proposal while continuing to maintain the statutory and exemption arguments presented in its letter of August 2011. *See id.* at 7–13, 17–20. In particular, Section 941's definition of "securitizer" does not encompass Open Market CLO managers or other participants in the structuring of Open Market CLOs. *See id.* at 7–14. Even if that were not so, the adverse consequences for the public interest, investors, syndicated loan borrowers and other recipients, and competition arising from applying the agencies' proposed rule to Open Market CLO managers, combined with the extremely limited risks to investors associated with such CLOs (given the absence of originate-to-distribute securities, their performance during the recent downturn, and their robust performance thereafter), require that the Commission exempt Open Market CLOs from the scope of the rule. *See* Dodd-Frank §941(b) (Exchange Act §15G(c)(1)(G)(i)); *see also id.* (§15G(e)(1)); LSTA 2011 Letter at 14–17. Even the Board of the International Organization of Securities Commissions, which counts the SEC as a member, has recognized that requirements to retain credit risk should not be imposed on CLOs. *See infra* pp. 19–20, 22 n.36. The agencies' adoption of the proposal set out below would, however, largely eliminate the harms to most CLO managers that give rise to their concerns regarding statutory construction and exemption from the rule's scope.

In short, the proposed approach would ensure that an Open Market CLO manager would hold securities with fair value equivalent to a substantial percentage of the value of the assets collateralizing the CLO and would retain substantially more than five percent of the credit risk of the CLO assets it manages – in fact, more than ten percent of that risk. That credit risk retention would be accomplished through the manager's ownership of securities directly dependent on the performance of the CLO assets, including deeply subordinated securities which most directly

[2] Credit Risk Retention; Proposed Rule, 76 Fed. Reg. 24090 (Apr. 29, 2011).

[3] The proposal and related arguments set forth below do not apply to Balance Sheet CLOs. Unlike Open Market CLOs, Balance Sheet CLOs are organized or initiated by an entity that also originates syndicated loans, portions of which are among the assets owned by the Balance Sheet CLO. *See* Letter Comments of LSTA at 2 n.4, 4–6 (Aug. 1, 2011) ("LSTA 2011 Letter").

bear the risks relating to the performance of the CLO assets. This would occur through both (i) the manager's retention of notes issued by the CLO that would be paid either pari passu with other notes issued by the CLO or only after the holders of the CLO debt securities have been paid or after holders of CLO equity securities have received a robust return and (ii) the manager's purchase of five percent of the CLO's equity securities. Under this proposed approach, the CLO manager would retain in excess of five percent of the credit risk of the related CLO assets, and the manager's interests would be aligned with CLO investors' interests in a context that is fully transparent and free from the loan originator's participation in the selection of CLO assets or initiation of the CLO. As a result, the proposed approach readily meets Section 941's text and its purposes while avoiding the principal harms to the CLO market, competition in the financial markets, and the public interest that the agencies' currently proposed rule would produce.

I. The Proposed Risk Retention Structure and Its Implementation

The proposed structure is designed to fit the framework and particular requirements for risk retention established by the Dodd-Frank Act and to be consistent with the current market approach to the compensation of managers of Open Market CLOs, augmented by a component of additional, retained risk funded by CLO managers. The proposed structure would result in a CLO manager's having "skin in the game" constituting retained credit risk considerably exceeding five percent of the credit risk arising from the CLO assets it manages. As such, the proposed structure satisfies Section 941 and the "base" risk retention requirement set forth in the NPRM. It also provides the Open Market CLO manager with a robust incentive to ensure initially, monitor, and control the quality of the CLO's assets, while further aligning the interests of the CLO manager with those of investors in the CLO.

A. The Proposed Structure

Under the proposed structure, a manager of an Open Market CLO would retain risk by holding a combination of (i) notes issued by the CLO and modeled to reflect the risks assumed by CLO managers through the current, performance-based compensation structure common in the CLO industry and (ii) equity securities issued by the CLO and purchased by the manager alongside other investors.[4] Together, the notes and the equity securities retained by a CLO manager would embody materially more than five percent of the credit risk associated with the assets collateralizing the CLO; indeed, the retained credit risk reflected in the ownership of that equity interest alone is just under five percent of the CLO credit risk, and the retained credit risk reflected in the notes alone is equivalent to *more* than five percent of the CLO credit risk. *See*

[4] The notes and equity securities would be held by the manager of the Open Market CLO at least through the end of the CLO's reinvestment period – typically four years – subject to the transfer provisions designed to protect investors in the context of the replacement of the manager (*see infra* n.8). Other commenters proposed similar limitations on the credit risk retention period. *See, e.g.*, Supplemental Letter Comments of Bank of America at 31 (Aug. 1, 2011) ("Bank of America Supp. Letter"); Letter Comments of American Bar Association, Business Law Section, Federal Regulation of Securities and Securitization and Structured Finance Committees at 60–61 (July 20, 2011) ("ABA Committees Letter"); Letter Comments of SIFMA at 12–13 (June 10, 2011) ("SIFMA Letter").

infra pp. 8–12 & App. A (analysis of Harvard Business School Professor Victoria Ivashina). In addition, those notes and securities would represent fair value of slightly less than five percent of the value of the CLO's assets. *See infra* App. A at 6 (CLO manager would hold notes representing approximately 3.5 percent of the value of the principal balance of the CLO's assets); *infra* p. 10 (value of CLO equity securities purchased by CLO manager is approximately .5 percent of value of CLO assets).

The proposed structure envisions that a manager of an Open Market CLO would retain risk in an "L-shaped" form in part by retaining unfunded notes (collectively, the "Class M Notes"). The most subordinated Class M Note (the "Class M Incentive Note") would be retained by the CLO manager and provide for horizontal risk retention by that manager. The Class M Incentive Note would be entitled to periodic payments equal to 20 percent of the funds that would otherwise be available for distribution to the equity investors of the CLO, but only after those equity investors have received cash flow distributions equal to their entire initial investment plus an internal rate of return of twelve percent on their investment. As a result, the Class M Incentive Note would expose the CLO manager to the most subordinated credit risk of any of the securities issued by the Open Market CLO. Indeed, the CLO manager, as the holder of the Class M Incentive Note, would remain at risk of receiving no payments on that note for a substantial period of time because the CLO equity investors would first have to receive cash flow distributions equal to their initial investment before any payments would be made on those notes, and would thereafter remain at substantial risk because the holder of those notes would not be entitled to any payments unless CLO equity investors received a substantial current return on their investment.

The other Class M Notes (the "Class M Vertical Notes") retained by the CLO manager would provide for additional, vertical risk retention by the CLO manager. The CLO would issue one Class M Vertical Note corresponding to each class of debt issued by the CLO. These notes would be held by the CLO manager, and each note would be paid pari passu with the related class of CLO debt securities. The CLO would also issue a Class M Vertical Note which would be held by the CLO manager and be paid only once all payments were made on the most junior tranche of CLO debt securities. The quantum as well as the structure of the Class M Vertical Notes would be designed to approximate the compensation structure currently demanded by CLO investors: the Class M Vertical Notes corresponding to the most senior CLO debt securities would be paid annual amounts equivalent to .15 percent of the value of the aggregate principal balance of the CLO assets; the notes corresponding to each of the more junior tranches of CLO debt securities would receive annual payments equivalent to .01 percent of the value of the aggregate principal balance of those assets; and the annual payments on notes to be paid following payments to all the CLO debt securities would be .32 percent of the aggregate principal balance of the CLO assets. (In all cases, payments on these notes would be made only to the extent the related CLO assets performed adequately.) [5] As a result, the Class M Vertical

[5] The stream of payments due the CLO manager as a result of retaining the Class M Notes would closely mirror the payments under the current manager compensation structure required by CLO investors. Under that structure, CLO managers commonly receive periodic payments (i) on a senior basis (prior to the payments due on the CLO debt securities), equal to .15 percent per annum of the aggregate principal balance of the CLO assets and (ii) on a

Notes would represent vertical retained risk which, together with the Class M Incentive Note, would provide a CLO manager with an interest in the entire structure of the Open Market CLO it managed. The retained credit risk reflected in these Class M Notes, alone, is equivalent to more than five percent of the CLO credit risk. *See infra* App. A.

These Class M Notes are designed to serve as a substitute for, and to mirror, the manager compensation structure that investors in securities of Open Market CLOs currently demand. The manager would not be able to offset or materially alter the proposed structure through additional, separate compensation arrangements.

In addition, a manager of an Open Market CLO would retain risk in a horizontal form by purchasing and then retaining equity securities (the "CLO Manager Equity Securities") issued by the CLO it managed. The manager would purchase five percent of the value of the equity securities issued by the CLO. To increase the alignment of incentives between investors and managers, the CLO Manager Equity Securities might also be purchased personally by "knowledgeable employees" of the CLO manager (as defined in the Investment Company Act of 1940), who are often actively involved in the management of the CLO, or by principals of the CLO manager. The offering circular or other disclosure documents for the Open Market CLO would disclose the material assumptions and methodologies used to determine the retained risk represented by the CLO Manager Equity Securities as well as the risk retained through the Class M Notes.

B. Rule Revisions to Implement the Proposed Structure

If the agencies adopted the proposed credit risk retention structure outlined above, that structure could be implemented in a straightforward manner through relatively simple modifications to the rules proposed in the NPRM. This sub-section outlines one approach to those modifications.

First, there should be somewhat more flexibility built into the rules addressing "L-shaped" risk retention. The agencies' proposed rules permitting "L-shaped" risk retention acknowledge that it is possible to "mix and match" different forms of risk retention while still ensuring that, in the aggregate, a securitizer retains interests equal to at least five percent of the credit risk of the assets collateralizing the related securitization transaction. *See* NPRM, 76 Fed. Reg. at 24103–04, 24159. The final rules should allow a CLO manager to utilize multiple risk retention options (*i.e.*, a "vertical slice," a "horizontal slice," or any other interest which

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subordinated basis (after payments due on the most subordinate debt instrument issued by such CLO), equal to .35 percent per annum of the aggregate principal balance of the CLO assets (these payments are broadly reflected in those due the Class M Vertical Notes). Under the current compensation structure, the CLO manager also receives "incentive" payments (broadly reflected in the payments due the Class M Incentive Note). The analysis of Prof. Ivashina set out in Appendix A, which concluded that the Class M Notes reflect retained credit risk equivalent to more than five percent of the CLO's credit risk (and reflect fair value of approximately 3.5 percent of the CLO asset value), was based on this structure, which is nearly identical to the Class M Note structure that seeks to replicate these commercial arrangements.

constitutes retained risk) so long as, in the aggregate, the retained interests represent at least five percent of the credit risk of the CLO assets. The requirement that the vertical and horizontal components in the "L-shaped" risk retention option each represent 50 percent of the total minimum retained credit risk serves no purpose and is unrelated to the statutory benchmark. As a result, this requirement should be eliminated in the final rules. Allowing CLO managers the flexibility to "mix and match" different forms of risk retention would provide CLO managers with an entirely adequate incentive to monitor and control the quality of the assets being securitized and would align the interests of the CLO manager with those of the CLO investors. At the same time, that modification would not arbitrarily limit the ability of CLO managers and investors to structure CLO transactions which provide for risk retention sufficient to satisfy the goals and purposes of the Dodd-Frank Act.[6]

Second, a similar measure of flexibility should be introduced for the "vertical" component of the rule addressing "L-shaped" risk retention. The agencies' proposed rules allowing "vertical" risk retention would require a CLO manager to retain risk in the form of a share of each class of interest issued in an Open Market CLO transaction. Specifically, the agencies' proposed rules state that this requirement "provides the sponsor an interest in the entire structure of the securitization transaction." NPRM, 76 Fed. Reg. at 24101. The proposed Class M Vertical Notes would be paid pari passu with the respective, related classes of CLO debt or subordinated to all the debt securities issued by the Open Market CLO, and the proposed Class M Incentive Note would be subordinated to the equity securities issued by the Open Market CLO. As such, the Class M Notes serve the stated purpose set forth in the agencies' proposed rules by providing that the CLO manager has an interest in the entire structure of the Open Market CLO (but not all Class M Notes are, technically, a "share" of each class of interest issued in such CLO). The final rules thus should be revised to permit the vertical risk retention requirements to be satisfied by retaining in any combination, in aggregate, the necessary amount of each interest issued in a securitization transaction (or by retaining securities pari passu with, or subordinated to, each such interest).[7]

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[6] The NPRM suggests that the 50%/50% ratio of the vertical and horizontal components of an "L-shaped" interest is necessary to ensure that each form of risk retention is "large enough to affect the sponsor's incentives." *See* NPRM, 76 Fed. Reg. at 24104. We are unaware of any studies that support that assertion. The NPRM also suggests that the 50%/50% ratio of the vertical and horizontal components of an "L-shaped" retained interest "should assist investors and the [a]gencies with monitoring compliance." *See id*. In the context of CLOs, investors have long demanded the vertical and horizontal components of the current compensation structures without requiring them to be on a 50%/50% basis, and there has been no difficulty monitoring compliance. Finally, imposing the 50%/50% requirement would only result in that relationship existing at one point in time: at closing. The interests in securitizations, generally, are paid sequentially, which means that the "even allocation" between the vertical and horizontal components would disappear as soon as the different components of the securities begin to amortize.

[7] These changes are in addition to the need to interpret the definition of credit risk consistently with the Act, which focuses on the credit risk of the assets in an ABS transaction, *see* Dodd-Frank §941(b) (Exchange Act §15G(b)(1)); *see also id.* (Exchange Act §15G(c)(1)(B)) (requiring retention of "not less than 5 percent of the credit risk" of certain assets), rather than requiring retention of five percent of the par value of the assets, *see* NPRM, 76 Fed. Reg. 24102. With a disproportionate weighting of subordinated securities, five percent of the par value would far exceed five percent of the credit risk. *See* LSTA 2011 Letter at 15 n.38; ABA Letter, at 7–8.

Third, slight changes would be required for the rule addressing horizontal interests as applied in the rule addressing "L-shaped" risk retention. The agencies' proposed rules define an "eligible horizontal residual interest" as an interest in the issuing entity that (1) is allocated all losses on the securitized assets (other than losses that are first absorbed through the release of funds from a premium capture cash reserve account) until the par value of such interest is reduced to zero; (2) has the most subordinated claim to payments of both principal and interest by the issuing entity; and (3) until all other interests in the issuing entity are paid in full, is not entitled to receive any payments of principal made on a securitized asset, provided, however, an eligible horizontal residual interest may receive its current proportionate share of scheduled payments of principal received on the securitized assets in accordance with the transaction documents. *See* NPRM, 76 Fed. Reg. at 24102. As proposed, clause (1) of this definition envisions securitizations in which principal losses on assets are explicitly allocated to the most subordinated interest to reduce the principal balance of such interest. While this feature is common in RMBS transactions and in certain other securitization transactions, CLOs (and many other types of securitization transactions) do not have "loss allocation" mechanics. To the extent there are losses on the assets held by a CLO, those losses reduce the collections that are distributed to the holders of the interests issued by the CLO, but those losses do not, technically, result in a "write-down" of any CLO interest. Even so, the most subordinated interest issued in a CLO transaction, by virtue of its placement at the bottom of the CLO "waterfall" pursuant to which distributions are made to the holders of CLO interests, will have its distributions reduced or eliminated if there are losses on the assets of the CLO (or other cashflow disruptions). As a result, while subordinated interests in CLO transactions do not have a principal balance that is expressly reduced or written down and there is no mechanism for allocating principal losses, CLOs still ensure that such subordinated interests absorb such losses. Therefore, we suggest that clause (1) of the definition of "eligible horizontal residual interest" be modified to apply only to securitizations that have a loss allocation feature. If a securitization, such as a CLO transaction, does not have an explicit loss allocation feature, clause (2) of the definition of an "eligible horizontal residual interest" adequately ensures that horizontal risk retention is being achieved by the holder of the most subordinated interest in the securitization.

Finally, clause (2) of the definition of an "eligible horizontal residual interest" requires that the interest be "the most subordinated claim to both payments of interest and principal." The subordination provisions in CLO transactions typically require the payment of interest to all interest-bearing classes of CLO interests, in descending order of priority and then, after payment of interest to the most subordinate interest-bearing CLO interest, provide for the payment of principal to all classes of CLO interest (other than classes with notional balances), again, in descending order of priority. The foregoing typical subordination provided for in CLOs would satisfy clause (2) of the definition of "eligible horizontal residual interest," and we request that this understanding be confirmed in the final rules.[8]

[8] In addition, the rule addressing the duration of the retention of credit risk would have to permit the transfers of the Class M Notes and the CLO Manager Equity Securities from a CLO manager that has been removed by the CLO's investors (or that has resigned) to a successor CLO manager. Otherwise, the rule would prevent the removal of CLO managers, thereby impairing the ability of CLO investors to protect their investments.

II. The Proposed Approach Satisfies Section 941 and Advances the Public Interest

The proposed credit risk retention structure outlined above would require a manager of an Open Market CLO to retain considerably more than five percent of the credit risk associated with the CLO assets – indeed, the retained credit risk would exceed 10 percent of the CLO's credit risk (through ownership of securities with fair value equivalent to four percent of the value of the CLO's assets). It would also, for the vast majority of CLOs, avoid the significant and adverse consequences that the agencies' proposed rule would produce. As a result, and especially in light of the structure and performance of Open Market CLOs, the proposed credit risk retention structure satisfies Section 941's terms, advances the objectives underlying the credit risk retention requirement, and largely accommodates the needs and structure of the CLO market.

A. CLO Managers Would Retain Considerably More Than Five Percent of Credit Risk

Under the proposed approach, a manager of an Open Market CLO would be required to assume and maintain interests in securities reflecting credit risk considerably in excess of five percent of the credit risk presented by the CLO assets and borne by the holders of the related CLO securities. Indeed, as the attached analysis of Harvard Business School Professor Victoria Ivashina indicates, as a result of the proposed structure, "the [Open Market CLO] manager would be retaining at least 10.1% of the CLO credit risk." *See infra* App. A, at 6. This result follows directly from (i) the deeply subordinated nature of the securities to be held by the CLO manager; (ii) the materiality of the CLO manager's holding of those securities; (iii) the relatively high likelihood of payment on the CLO debt securities, concentrating credit risk in the subordinated securities, including those held by the CLO manager; and (iv) the manager's ability to actively trade loan interests and thus limit potential losses presented by the loans most in danger of non-performance.

Credit risk simply reflects the risk that note holders (and the holders of securities based on the performance of those notes) will not receive the payments due to them, through default on the payment obligations and inability to recover sums due from the debtor thereafter. *See, e.g.*, NPRM, 76 Fed. Reg. at 24156 (Proposed Rule, Subpart A, § __.2) (defining credit risk). Where the holders of different tranches of securities have different priorities to receive payments from a pool of income-generating loan assets, the holders of the most junior securities, with the lowest priority, hold a greatly disproportionate amount of the credit risk associated with the assets collateralizing the securities. Where a diverse portfolio of assets generates the payment stream, dividing the entitlement of payments across tranches of securities will often result, as with CLOs, in the most junior securities embodying all or virtually all of the credit risk associated with the asset pool. These basic principles of credit risk are further described in the declaration of Professor Ivashina. *See infra* App. A. Indeed, Professor Ivashina concludes that, for a typical CLO and in light of the loss history and expected losses of CLOs, "99.6 percent of the expected dollar losses is coming from the junior 20% component of the vertical slice [of tranched CLO securities]." *Id*. at 3; *see id*. at 2. The principles are also uncontroversial, having been endorsed and set forth by the agencies themselves. *See* NPRM, 76 Fed. Reg. at 24151 (The horizontal risk

retention method "exposes a sponsor to the first five percent of all pool-asset losses and thus results in the sponsor retaining substantially more than five percent of the credit risk in a securitization. That is, a sponsor will be exposed to 100 percent of all losses as long as those losses are up to 5 percent.").

The structure of the proposed approach would result in the CLO manager's holding far more than five percent of the credit risk associated with the related CLO assets. The CLO manager would be required to hold the CLO's most junior securities, which embody a disproportionately high degree of the related credit risk. Managers would be required to purchase and hold five percent of the CLO equity securities and would, on that basis alone, retain substantial credit risk, disproportionate to the relative value of those securities. Professor Ivashina concludes that this equity interest retained by the CLO manager exposes the CLO manager "to 4.55% of CLO credit risk in a 6-year scenario and 4.45%–4.47% of CLO credit risk in the 10-year scenario." *See infra* App. A at 5.

In addition to holding those equity securities, and in addition to holding securities that mirror the interests of those held by investors in all of the respective classes of a CLO's debt securities, a CLO manager would retain a significant interest in the form of Class M Vertical Notes that are paid junior to all rated CLO debt securities and would retain a specially created, junior-most class of securities – the Class M Incentive Notes. *See supra* pp. 3–5. Those "junior to junior" notes embody an unusual and disproportionate degree of credit risk because they would not entitle the CLO manager to any payment unless the holders of CLO equity securities received and continued to receive a twelve percent internal rate of return (IRR). That is, no payments would be made on the Class M Incentive Note in any payment period until the holders of CLO equity securities received payments reflecting both their invested capital and a twelve percent IRR through that payment period. Only then would the CLO manager receive any payments on the Class M Incentive Note and, in that case, would receive them pari passu with the holders of CLO equity securities. In this way, the CLO manager is exposed to substantial risk during the entire period preceding the effective return of capital to the CLO equity holders and, even thereafter, may be denied payment even where the underlying assets are generating quite substantial returns for the CLO equity investors. (Those investors are, of course, receiving returns only after the holders of debt securities issued by the CLO have received all the payments to which they are entitled.) Professor Ivashina concludes that the Class M Incentive Notes and the Class M Vertical Notes "are respectively exposed to 5.22% and 0.33% of the CLO credit risk (total of 5.55% of the CLO credit risk)" in a six-year scenario, and, for the 10-year scenario, "are respectively exposed to 5.24% and 0.63% of the CLO credit risk (total of 5.87% of the CLO credit risk)." *See infra* App. A at 6.

The proposal would also require that a CLO manager hold material quantities of these deeply subordinated securities. Even apart from the payments on the Class M Vertical Notes paid pari passu with CLO debt securities, the potential payments on the portion of the Class M Vertical Notes that are subordinated to the junior CLO debt securities amount to more than 50 percent of the CLO manager's anticipated payment for managing the CLO, and the potential payments on the Class M Incentive Note would represent more than twelve percent of those

payments. Professor Ivashina has calculated that the fair value of the Class M Notes is equivalent to approximately 3.52 percent of the value of the assets collateralizing the CLO. *See infra* App. A at 6. In addition, the CLO manager's purchase of five percent of the CLO's equity securities reflects a significant interest. A typical CLO has eight to ten percent of its fair value reflected in the equity tranche. That level of equity ensures that considerably more than half of the credit risk resides in the equity tranche (in light of the nature of the asset class, its performance, and its management flexibility, described below). Because the CLO manager's equity securities would expose it to credit risk along with other holders of equity securities, the CLO manager would, as noted and wholly apart from the Class M Notes, bear just under five percent of the credit risk through its purchase of CLO equity securities alone. *See supra* p. 9. In addition, the CLO equity securities purchased by the CLO manager would be equivalent to approximately .5 percent of the value of the CLO assets (based on an equity tranche of 10 percent of the CLO value). The CLO manager's CLO equity securities and Class M Notes would thus reflect fair value of approximately 4.0 percent of the value of the CLO's assets (3.52 percent note value plus .5 percent equity securities value).

The high degree of retained credit risk is especially clear in light of the nature of the asset class collateralizing Open Market CLOs.[9] Where, as here, the assets can be expected to perform well relative to other asset classes and are widely distributed in a portfolio, the tranche of CLO equity securities bears nearly all the credit risk in plausible scenarios of loss. *See infra* App. A (junior 20 percent of CLO securities bear more than 99 percent of credit risk of CLO assets). The assets of an Open Market CLO which are obligations of a single debtor typically are limited to no more than two percent of the CLO's assets; typically, the CLO's assets related to a particular industry sector are limited to eight to twelve percent of the CLO's assets; and, usually, the CLO's assets include 100 to 250 loans.[10] And, as described at length in comments before the agencies, the strong historical performance of CLOs and the loan syndication process confirms that this asset class can be expected to perform well relative to other classes of assets collateralizing other types of ABS.[11] CLOs performed extremely well during the recent historical downturn, and investor losses were extremely limited in number and confined to the most subordinated classes of securities.[12] Even where there were increases in events of defaults

[9] Similarly to the limitations noted in LSTA's prior request for an exemption, *see* LSTA 2011 Letter at 18, the agencies' rules could limit the CLOs deemed in conformity with the Section 941 under this proposal to those holding at least 90 percent of their assets in senior, secured syndicated loans and exclude those investing in asset backed securities (including CDOs of ABS, CDOs-squared, and other types of resecuritizations).

[10] *See* LSTA 2011 Letter at 6; ABA Committees Letter at 91–92; SIFMA Letter at 67; Letter Comments of American Securitization Forum at 134 (June 10, 2011) ("ASF Letter"); Letter Comments of JP Morgan Chase & Co. at 52 (July 14, 2011) ("JP Morgan Letter"); Letter Comments of The Financial Services Roundtable at 30–31 (Aug. 1, 2011) ("Financial Services Roundtable Letter").

[11] *See* LSTA 2011 Letter at 4–7; ABA Committees Letter at 90–93; SIFMA Letter at 69; ASF Letter at 134–135; Letter Comments of Morgan Stanley at 18–19 (July 27, 2011) ("Morgan Stanley Letter"); Bank of America Supp. Letter at 23–24, 29.

[12] *See* LSTA 2011 Letter at 7; ABA Committees Letter at 90–91; SIFMA Letter at 69; ASF Letter at 135; Letter Comments of Wells Fargo & Company at 29 (July 28, 2011) ("Wells Fargo Letter").

suffered by CLO assets, recoveries remained strong and payments to investors in CLO debt and even equity securities were almost always at worst delayed rather than forgone. Indeed, holders of CLO equity securities, unlike the holders of equity securities issued by ABS collateralized by other types of assets such as RMBS, experienced reduced payments during the financial crisis but later received "restoring distributions (often at a higher rate) once the transactions came back into compliance." *See* Citi, *CLO Equity – Performing as Marketed* 1 (Jan. 26, 2011); *id.* (even including CLOs commenced before the financial crisis, "roughly 85 percent of CLO transactions receive full equity distributions in the US"); *see also Losses in US Cashflow CLO Tranches are Infrequent, CLO Interest* (Moody's, New York, N.Y.), July 25, 2012, at 4 (only 32 of 4,118 CLO tranches, rated between January 1, 1996 and May 16, 2012, suffered any realized principal loss at maturity).[13] This strong result is to be expected as a result of the structuring of Open Market CLOs in particular. The loans included in those CLOs are the product of a syndication process with sophisticated, systematic, and extensive due diligence, embodying the judgment of multiple, highly sophisticated financial institutions. They are subsequently selected and then managed by a CLO manager who is unaffiliated with the originating entity and who exercises independent judgment regarding the loan's performance – often informed by post-origination performance history and ratified by secondary market pricing. *See* LSTA 2011 Letter at 4–6. And, as noted below, losses are further reduced because the assets are actively managed for much of the life of a CLO.

The retention of credit risk through the CLO manager's holding of the more subordinated Class M Vertical Notes, the CLO Manager Equity Securities, and the Class M Incentive Notes – and the basis for the relatively strong performance of CLO securities – is further reinforced by the nature of CLOs' operation. For CLOs, the pool of assets collateralizing the securities is not static. For much of the period of a CLO's operation, the CLO manager has the ability to sell loans that were originally part of the CLO and to acquire additional loans, which in turn the CLO manager may also sell. This management function is not typical of most ABS structures, and permits the CLO manager to limit losses through its monitoring of loan performance and sale of loans that appear to be at greater risk of non-performance. A related aspect of this active management is that CLO managers in certain circumstances can, and are obligated to, divert cashflows to rebuild the portfolio of loan assets, providing a further protection for CLO debt security holders in particular. *See CLO Interest, supra*, at 4 ("Infrequent losses on US broadly syndicated arbitrage CLO tranches are proof of the strong performance of the underlying loan assets and the effectiveness of over-collateralization (OC) diversion features. Very few US cash flow CLOs we rate have realized principal losses on their rated debt to date. Between 1 January 1996 and 16 May 2012 we rated 4,118 tranches in 719 broadly syndicated US arbitrage cash flow CLOs[, and] … losses have been rare … ."). These attributes of CLO operation and structure thus serve to manage and reduce credit risk and contribute to having a greatly disproportionate degree of credit risk vested in the tranche of equity securities.

[13] Indeed, these figures overstate the relevant credit risk because the studies reviewed CLOs that invested in high-yield bonds, which would be strictly limited under the asset restrictions suggested in the LSTA 2011 Letter, at 18. The performance history of high yield bonds has been markedly worse than the performance history of assets that would be permitted under such restrictions.

As noted above, Harvard Business School Professor Victoria Ivashina has quantified the extensive credit risk retained by managers of Open Market CLOs. Her analysis is based on information from the LSTA describing the tranche structure of the typical CLO, the proposed credit risk retention structure, and the resulting payment streams to the CLO manager in the event the CLO assets perform without impairment. That typical CLO capital structure is based on a sampling of CLO structures that existed in late 2012 and early 2013; if actual CLO capital structures used over the next years for some reason departed significantly from those in the sample, the amount of retained credit risk in the proposed approach would, of course, differ somewhat as well (but could be expected in no event to drop below five percent of retained credit risk). Prof. Ivashina then prepared a statistical model that assessed the anticipated losses for each tranche of CLO securities under various scenarios, and then applied that model to the securities held by the CLO manager under the proposed structure to assess the manager's exposure to the risk arising from the non-performance of the CLO's assets. She obtained separate results for the retained credit risk embodied in the CLO manager's purchase of five percent of the CLO equity securities, the CLO manager's interest in the Class M Vertical Notes, and the CLO manager's interest in the Class M Incentive Note. As described above and in Appendix A, the retained credit risk related to the equity interest ranged from 4.45 percent to 4.55 percent of the CLO's credit risk; the credit risk related to the Class M Incentive Note ranged from 5.22 percent to 5.24 percent of the CLO's credit risk; and the credit risk related to the Class M Vertical Notes ranged from .33 percent to .63 percent of the CLO credit risk. Because the proposed credit risk retention structure described above contains all of these elements of credit risk, the cumulative credit risk retained by the CLO manager would be far higher: "if a [CLO] manager retains 5% of the equity and receives fees from the Class M note structure, the manager would be retaining at least 10.1% of the CLO credit risk." *See infra* App. A at 6. In addition, as noted above, Professor Ivashina's analysis also supports the conclusion that the CLO manager will hold securities with fair value equivalent to approximately four percent of the value of the CLO's assets. *See supra* p. 10.

B. The Proposal Satisfies Section 941's Terms and Objectives

Because the proposal would ensure that the CLO manager retains more than five percent of the credit risk of the assets collateralizing the CLO, and in light of the nature of the CLO assets and management functions noted below, the proposal readily satisfies Section 941 and advances the public interest.

For the reasons outlined above, the proposal would ensure that the CLO manager retains more than five percent of the credit risk associated with the CLO's assets, thus satisfying Section 941's core requirement that the securitizer retain "not less than 5 percent of the credit risk" for the asset at issue. *See* Dodd-Frank §941(b) (Exchange Act §15G(c)(1)(B)); *see also id.* (Exchange Act §15G(b)(1)). The proposal sufficiently aligns the interests of CLO investors and those of CLO managers and even more clearly meets the statutory standard in light of the characteristics of the asset class at issue: the absence of any origination by the Open Market CLO manager, the extensive due diligence process associated with loan origination supported by sophisticated members of the loan syndicate, the independent judgment exercised by the CLO

manager in selecting and managing assets (which are not a static pool of assets, but are bought and sold for much of the life of a CLO), the commensurate performance of the asset class in the recent financial downturn, and the robust resurgence of the CLO market that has ratified investors' view that their interests are aligned with those of CLO managers. *See* LSTA 2011 Letter at 5–7; *infra* at pp. 19–20 (requirement to evaluate credit risk in light of particular characteristics of each asset class). The proposal would require CLO managers to retain credit risk that exceeds that retained by many sponsors of other ABS securities that are riskier and do not have these characteristics – for example, those who, unlike CLO managers, can take advantage of the agencies' vertical pro rata option and thus do not assume, to the same degree, the deeply subordinated position that the proposal would require. *See* NPRM, 76 Fed. Reg. 24101–02 (describing vertical risk retention option); LSTA 2011 Letter at 15 (reasons why the agencies' proposed vertical risk retention option is unavailable to most CLO managers). The proposal will thus require CLO managers to retain at least an equivalent level of credit risk to that retained by sponsors of many ABS collateralized by much riskier asset classes. It would be quite irrational for regulators to impose a higher level of credit risk retention on the managers of an especially safe class of ABS, and this is especially so when the manager retaining the CLO credit risk performs no origination role. For these reasons, the "not less than" language in Section 941(b) (Exchange Act §15G(c)(1)(B)) does not provide a license to impose a disproportionately high level of risk retention on CLO managers, leave that determination to the agencies' unbounded discretion, or otherwise call into question the adequacy of the proposed approach.

The proposed approach would also satisfy and advance Section 941's purposes and objectives. Those purposes are to align investor and sponsor interests by ensuring that sponsors have "skin in the game," to ensure transparency, and as a result to protect investors and facilitate responsible capital formation.[14] CLOs are among the most transparent of all ABS structures, with detailed, periodic reports provided to investors.[15] Nothing in the proposal alters that status. In addition, the proposal ensures that CLO managers have a direct and significant stake in the performance of the CLO securities – and does so in the most effective manner possible, by requiring CLO managers to hold the most deeply subordinated securities. *See supra* pp. 3–5. The proposal even more clearly satisfies the core statutory purposes because Open Market CLOs present none of the originate-to-distribute risks that Section 941 was designed to offset. And, the performance of CLOs during and since the financial crisis shows that CLO investors are protected by the compensation structure underlying the Class M Note component of the proposal. *See* LSTA 2011 Letter at 6–7.

The Class M Note component of the proposed approach reflects the compensation structure prevalent in the current CLO market, and the market ratification of that structure

[14] *See* LSTA 2011 Letter at 13–14; ABA Committees Letter at 2–3; ASF Letter at 135; JP Morgan Letter at 57.

[15] *See* LSTA 2011 Letter at 5; ABA Committees Letter at 91–92; SIFMA Letter at 67–68; ASF Letter at 134; JP Morgan Letter at 51–52, 59; Wells Fargo Letter at 27–28; Letter of Cong. Jim Himes, et al. at 1 (July 29, 2011) ("Cong. Himes, et al. Letter").

provides a further basis to conclude that the proposal satisfies Section 941's objectives. Since the financial crisis, the CLO market has rebounded and is vibrant and robust. More than $54 billion of CLO securities were issued in 2012.[16] To the extent that regulators are concerned that further alignment of interests between sponsors and investors is necessary to facilitate capital formation or otherwise assure investors that their interests are protected, that concern cannot apply to the CLO market in light of the recent growth of the CLO market. Sophisticated institutions and investors have determined and shown, through their continued investments, that the current approach to structuring compensation imposes an appropriate level of credit risk on managers to align the interests of CLO managers and investors in CLO securities. In particular, investors have embraced the CLO product and compensation structure with full awareness of the potential that has arisen for other asset classes for misalignment of incentives, the dangers of an originate-to-distribute model or lack of transparency, and related risks revealed by the financial crisis and addressed by Section 941. In any event, the proposed structure adds an additional, funded component of credit risk retained by the CLO manager, in addition to the Class M Note component modeled on the current compensation structure: the CLO manager must also purchase and retain five percent of the CLO's equity securities.

In addition, adopting the proposal would achieve the purposes of Section 941 and advance the public interest by avoiding the principal harms to the CLO market that the agencies' proposed rule would cause. As previously explained, a substantial proportion of CLO managers are not in a financial position to take advantage of the compliance options set forth in the agencies' proposed rule.[17] Often, CLO managers are unaffiliated with larger entities and operate effectively as funds managers or advisors – and thus are dependent on the performance of the CLO assets and the returns provided to CLO investors rather than automatically receiving a percentage of the funds under management or benefiting financially from origination fees, balance sheet positions, or related banking services. *See* LSTA 2011 Letter at 6–7, 14–15. In this respect, they are unlike the sponsors of other classes of assets collateralized into ABS offerings. Because these CLO managers cannot take advantage of the particular risk retention structures outlined in the agencies' proposed rules, those rules would have the effect of dramatically reducing the formation of CLOs. *See id.* at 15–16. That, in turn, would impair the liquidity of the syndicated loan market, erode and threaten the viability of a secondary market in syndicated loans, and dramatically reduce the offerings of CLO securities to investors. *See id.* at 16–17. These adverse market effects would have further adverse consequences for the price and availability of credit to a broad range of significant U.S. companies, for competition in the provision of syndicated loans, and for competition in the offering of investment services. *See*

[16] *See* Stephen Foley, *Storm Clouds Cast Pall over Hot US loans: Demand Still Strong but New Rules Threaten CLO Funds, Financial Times* (Mar. 22, 2013) (reporting that CLOs raised $54 billion in 2012 and $23 billion so far in 2013, that CLOs do not originate loans and CLO managers cannot afford to retain five percent of CLO assets, and that "US regulators risk raising the cost of capital for businesses hoping to take advantage of the loan market to raise funds for expansion, with a measure that has little impact on systemic risk.").

[17] *See* LSTA 2011 Letter at 14–16; SIFMA Letter at 70; ASF Letter at 137; Financial Services Roundtable Letter at 32; Wells Fargo Letter at 29.

infra pp. 21–22. All those consequences are contrary to Section 941's objectives of facilitating responsible competition, investor choice and protection, and the formation of capital. All of them could be largely avoided by adopting the proposed structure and ensuring the continued operation of a robust and highly competitive CLO market.

Finally, allowing managers of Open Market CLOs under the proposed structure to retain credit risk in part through an outlay of funds and in part without such an outlay in no way undermines the statutory and policy arguments set out above. The CLO manager would be required to purchase and retain five percent of the equity securities issued by the CLO, and that interest alone, as described above, embodies nearly five percent of the credit risk of the related CLO's assets. And, the significance of the credit risk retained through the Class M Notes is not reduced simply because it is unfunded. The statutory standard is readily met: non-performance of the loans collateralizing the CLO has identical financial effects on the CLO manager, whether the risk is funded or unfunded. The value of the Class M Notes depends on how the CLO assets perform and the resulting cashflows; they do not operate as any sort of guarantee, much less an unfunded guarantee. Likewise, the alignment of the CLO manager's interests with those of investors in CLO securities is equivalent in both cases. Section 941 specifies only that credit risk be retained; it does not require or suggest that risk retention be accomplished through the acquisition of securities resulting from an outlay of funds. Indeed, the statute requires that the agencies attend carefully to the differences among different asset classes, *see* Dodd-Frank §941(b) (Exchange Act §15G(c)(2)(A)); *infra* pp. 19–20, and the CLO industry is marked by an effective system of aligning investor and manager interests through the structure of the manager's compensation. Bd. of Governors of the Fed. Reserve Sys., *Report to Congress on Risk Retention* 46–47 (Oct. 2010) ("Federal Reserve Report"). As noted above, CLO investors have embraced CLO securities, even and especially after the financial crisis, because they understand that the CLO manager's compensation structure does, in fact, place the manager at true financial risk and align interests in an appropriate manner. In addition, the proposed approach adds an additional component of funded credit risk that the CLO manager must retain through the purchase of five percent of the CLO's equity securities. This is above and beyond the structure that has been required by investors traditionally in the CLO market and which investors have deemed to protect their interests.

As importantly, requiring CLO managers to completely fund their entire interests that provide for retention of risk would be inequitable and counter-productive because the manager does not directly or indirectly receive or initially hold a portion of the CLO assets or funds received from investors. Instead, the CLO manager depends on a stream of payments that is largely contingent on the performance of the assets of the CLO. That payment stream, even if the CLO performs exactly as intended, would fall short of five percent of the fair value of the assets held by the CLO and occurs over many years, making an obligation to fund the investment when the CLO issues securities particularly unfair to the CLO manager and impractical. Because the initially funded securities position equivalent to five percent of the fair value of the assets is not remotely feasible for a significant proportion of current or potential CLO managers, they would be foreclosed from initiating new CLOs if the agencies' proposed rule were to go into effect. *See* LSTA 2011 Letter at 14–15. This would, as noted above, dramatically curtail

what is now a robust CLO market, together with the competition, finance, and investment offering benefits that the market produces. Indeed, European regulators imposed a similar initial funding requirement through Article 122a of the European Union Capital Requirements Directive,[18] and that requirement proved to be a significant factor leading to the virtual shut-down of the European CLO market. Adopting the proposed structure would readily avoid that consequence as well as produce the finance, investor, and other public interest benefits arising from an active CLO market.

III. Adopting the Proposed Approach Would, for the Vast Majority of CLO Managers, Reduce the Statutory Construction and Administrative Law Concerns Presented by the Rules Proposed in the NPRM

If the agencies adopt the proposed approach or a comparable approach that enables the CLO market to function in its current, robust state, that course would, for the CLO managers able to comply with the proposal, reduce concerns that would otherwise persist related to the administrative law and statutory difficulties of the agencies' proposed rule. The LSTA and other commenters previously demonstrated that Open Market CLO managers are not subject to Section 941's requirements (as a matter of statutory construction or, in the alternative, because they are entitled to an exemption), that an appropriate rule must reflect the unique nature of CLOs, and that the agencies must more fully take into account the significant negative economic and competitive effects of applying the proposed rules to Open Market CLOs. *See, e.g.*, LSTA 2011 Letter at 2–3, 7–19. The points below elaborate these concerns.

A. The Characteristics of Open Market CLOs Confirm that CLO Managers are Not Securitizers

Numerous submitted comments have explained that under the plain text of the statute and proposed rule, no basis exists to apply the credit risk retention requirement to the managers of Open Market CLOs.[19] The following points underscore and elaborate why the structure and operation of Open Market CLOs require this conclusion.

The agencies have not suggested that CLOs themselves are subject to any obligation to retain credit risk, and the basis for this is clear. CLOs themselves generally are special purpose vehicles created in the name of an offshore charity or corporation. The charitable "owner" of the CLO thus has no role in originating or identifying the loans that securitize the CLO. They are entities engaged in financial investment or management and have no financial stake in the operation or function of the special purpose vehicle used to create the CLO, and have no

[18] Council Directive 2006/48, 2006 O.J. (L 177), 1 (EC) & Council Directive 2006/49, 2006 O.J. (L 177), 201 (EC) (amended Sept. 16, 2009).

[19] *See* LSTA 2011 Letter at 7–14; ABA Committees Letter at 94–95; SIFMA Letter at 68–69; ASF Letter at 135–36; JP Morgan Letter at 53–55; Financial Services Roundtable Letter at 31–32; Bank of America Supp. Letter at 22–29; Wells Fargo Letter at 26–27; Letter Comments of White & Case LLP at 4–6 (June 10, 2011); Cong. Himes, et al. Letter at 2.

financial capability to assume credit risk. As such, it makes no sense as a practical or theoretical matter to impose a risk retention requirement on the CLO.

Nor does the role of the Open Market CLO manager trigger any statutory obligation to retain credit risk.[20] CLOs are actively managed by a CLO manager that acts as an agent of the CLO and selects the loans that the CLO acquires in constructing its portfolio of assets, monitors the performance of the loans, and may sell underperforming loan assets under certain circumstances. The CLO manager may thus organize and initiate a securitization transaction, but it does so by selecting assets for the CLO to purchase, not by selling or transferring assets to the CLO. The CLO manager itself does not ever hold or own any of the loans that the CLO acquires and thus cannot sell or transfer those loans. The CLO manager is generally engaged by the CLO as an agent under a management agreement, and this agency relationship confirms and underscores why the CLO manager only receives or buys the assets, on behalf of the CLO, and in no way sells or transfers them, even indirectly. Indirectly purchasing loans cannot be rationally construed as "indirectly transferring" or selling loans into a CLO. Only an entity that owns or holds and then disposes of the loan can transfer or sell that asset. Simply by arranging for the CLO to pay for assets, a purchaser does not thereby "indirectly" transfer or sell them.[21] A conclusion to the contrary would mean that the CLO, by buying loans through its agent-manager, indirectly sells or transfers those loans to itself – an indefensible conclusion. [22]

For similar reasons, the CLO manager does not indirectly sell or transfer assets to the CLO through the involvement of other entities acting on its (and, ultimately, the CLO's) behalf. Typically, in the initiating phase of the CLO, the CLO manager hires an investment bank to help arrange the transaction. This structuring bank thus acts on behalf of the CLO manager in setting

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[20] *See* Dodd-Frank §941(b) (Exchange Act §15G(a)(3)(B)) (defining "securitizer" as "a person who organizes and initiates an asset-backed securities transaction by selling or transferring assets, either directly or indirectly, including through an affiliate, to the issuer").

[21] Because it can take a period of time to identify and acquire the number of loans needed to issue the CLO securities, the initial loans acquired by the special purpose vehicle that eventually becomes the CLO may be purchased some time in advance of the issuance of the securities themselves. That some of the loans collateralizing the CLO are thus "earmarked," "pre-purchased," or "warehoused" for a time (which does not involve ownership or possession by the CLO manager or the structuring bank) in no way transforms the purchase of the loans into an indirect sale or transfer of the loans.

[22] The FDIC thus errs, in its response to questions from Cong. Bill Posey, by stating that in Open Market CLOs "the organizing entity meets the definition of securitizer under the statute because it organizes and initiates asset-backed securities transactions by *causing* the sale or transfer of assets, either directly or indirectly, to the issuer." *Understanding the Implications and Consequences of the Proposed Rule on Risk Retention: Hearing Before the Subcomm. on Capital Markets and Government Sponsored Enterprises of the H. Comm. On Financial Services*, 112th Cong. 362 (2011) ("2011 Hearing") (FDIC Response to Questions from Representative Bill Posey) (emphasis added). A "sponsor" is a person who initiates a transaction by selling or transferring assets directly or indirectly to the issuer. Interpreting this definition to include a *purchaser* of assets under the theory that purchasing assets indirectly "causes" the sale of those assets improperly inserts the term "causing" into the statute and expands the meaning of indirect sale of assets well beyond what the statutory language can bear. *See also* LSTA 2011 Letter at 12–13.

up the transaction, but its role in this capacity is limited to facilitating the placement and issuance of the CLO's securities.[23] In acting on behalf of the CLO manager, the structuring bank does not secure loans or hold or possess loans; it thus does not in that capacity sell or transfer them into the CLO.[24] The definition of "sponsor," like the statutory definition giving rise to it, is limited to one who initiates and organizes a transaction by directly or indirectly selling or transferring assets. The CLO manager neither sells nor transfers assets to the CLO, nor does the manager sell or transfer assets indirectly to the CLO via the structuring bank.

Finally, the definition of "depositor" fits no entity in the CLO context (and, in any event, depositors are not required to retain credit risk under the rule, *see* NPRM, 76 Fed. Reg. at 24099). *See* Proposed Rule, Subpart A §__.2, 76 Fed. Reg. at 24156 (primarily defining "depositor" as "[t]he person that receives or purchases and transfers or sells the securitized assets to the issuing entity"). The "depositor" is a role performed in the structuring of ABS collateralized by other types of assets, where an originator creates an asset for securitization but for tax purposes transfers that asset first to an intermediary which in turn deposits the asset into the ABS vehicle. In such circumstances, the depositor "receives" the asset from the originator and "transfers" it to the ABS vehicle. Because there is no such intermediate transfer in the Open Market CLO context[25] and no "depositor" as understood in other contexts involving an originator, that provides an additional basis to conclude that there is no indirect transfer of an

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[23] *See* JP Morgan Letter at 55. The agencies are thus mistaken as a factual matter in suggesting – in footnote 42 of the NPRM and in their responses to questions from Cong. Bill Posey – that the structuring bank purchases loans on behalf of the CLO manager. *See* NPRM, 76 Fed. Reg. 24098 n.42 ("[T]he CLO manager generally acts as the sponsor by selecting the commercial loans to be purchased by an agent bank for inclusion in the CLO collateral pool, and then manages the securitized assets once deposited in the CLO structure."); 2011 Hearing at 357 (Response to Questions from Representative Bill Posey from The Honorable Scott Alvarez, General Counsel, Board of Governors of the Federal Reserve System) (same); *id*. at 360 (Response from Meredith Cross, Director of the Division of Corporation Finance, SEC) (same); *id*. at 362–63 (Response from the FDIC) (same).

Similarly, the agencies' reference to the CLO manager's active management of the CLO's loan portfolio as supporting the view that the manager is a "sponsor" is misplaced. Neither the statute nor the proposed rule suggests that management of assets is relevant to the definition of sponsor – especially where, as for Open Market CLOs, the role the CLO manager discharges is entirely independent and has nothing to do with the origination of the loans.

[24] The CLO manager may choose to purchase loans from the trading desks of various institutions (which may sometimes include an affiliate of or operational group within the structuring bank itself). When it does so, the trading desk is a counter-party to the Open Market CLO manager, acting adversely to rather than on behalf of the CLO manager. The counter-party trading desk, whether affiliated with the structuring bank or not, is clearly responding to an offer to trade made by the CLO manager independently rather than originating, organizing, or initiating the offering of securities. The statement in the LSTA White Paper addressing the structuring bank, *see* App. C at 2, simply refers to a purchase by the CLO (implementing the loan selection by the CLO manager) from the trading desk of the structuring bank, which is not acting on behalf of the CLO or CLO manager in this capacity.

[25] Indeed, the rule recognizes that not all ABS have a "depositor" as commonly understood: the rule distinguishes "a securitization transaction where there is not an intermediate transfer of the assets from the sponsor to the issuing entity," and in that case simply substitutes the "sponsor" for the "depositor." Proposed Rule, Subpart A §__.2, 76 Fed. Reg. at 24156 (defining "Depositor"). As discussed, there is no sponsor in an Open Market CLO transaction and thus no "depositor" even under this prong of the definition.

asset to the CLO in an Open Market CLO structuring – in practical terms and for purposes of construing Section 941.

B. Administrative Law Implications of the Special Nature of Open Market CLOs

In promulgating the credit risk retention rule, the Dodd-Frank Act requires the agencies to consider the unique features of CLOs in determining whether the risk retention requirement applies to CLOs and in adapting any such requirement as applied to CLOs. As explained above, Section 941 does not apply to CLOs, but even if it did, the statute directs the agencies to "specify the permissible forms of risk retention for purposes of this section," Dodd-Frank Section 941(b) (Exchange Act §15G(c)(1)(C)(i)), and to "establish asset classes with separate rules for securitizers of different classes of assets." *Id*. (§15G(c)(2)(A)); *see also id.* (§15G(c)(1)(G)(i)) ("The regulations ... *shall* … provide for ... a total or partial exemption of any securitization as may be appropriate in the public interest and for the protection of investors.") (emphasis added). Section 941 itself thus recognizes that ABS collateralized by different classes of assets require different standards, grants the agencies the flexibility to develop appropriate standards, and directs the agencies to grant exemptions that serve the public interest. Even so, the agencies' NPRM does not acknowledge the unique nature and historical performance of CLOs or the manner in which CLO managers through their fee structure are already exposed to the credit risk of the CLO assets.

As LSTA and numerous other commenters have explained, Open Market CLOs are far removed from the originate-to-distribute model of securitization and thus do not present the risks animating Section 941's core risk retention requirement.[26] The submitted comments also show that CLOs, unlike most other ABS, performed well during the recent financial crisis[27] and that CLO managers' market-tested compensation structure more than adequately aligns the managers' interests with those of CLO investors.[28] The Board of Governors of the Federal Reserve System's own report to Congress on risk retention, submitted before the agencies issued the proposed rule, recognizes these features that set CLOs apart from other ABS. *See* Federal Reserve Report at 46–47 (the performance-based fee structure for CLO managers serves to align the interests of the manager and investors); *id*. at 62 (CLOs experienced few actual defaults during the financial crisis). And, the Board of the International Organization of Securities Commissions ("IOSCO"), which includes the SEC as a member, similarly concluded that the

[26] *See* LSTA 2011 Letter at 6; ABA Committees Letter at 93–94; ASF Letter at 134; Morgan Stanley Letter at 19; Bank of America Supp. Letter at 21–25; Wells Fargo Letter at 28.

[27] *See* LSTA 2011 Letter at 7; ABA Committees Letter at 90–92; SIFMA Letter at 69; ASF Letter at 134–135; Morgan Stanley Letter at 18; Bank of America Supp. Letter at 23; Wells Fargo Letter at 29; Letter Comments of the Center for Capital Markets Competitiveness of the United States Chamber of Commerce at 4–5 (Aug. 1, 2011) ("Chamber of Commerce Letter"); Cong. Himes, *et al.* Letter at 2.

[28] *See* LSTA 2011 Letter at 7; SIFMA Letter at 70; ASF Letter at 137–38; JP Morgan Letter at 53; Financial Services Roundtable Letter at 31; Morgan Stanley Letter at 20; Bank of America Supp. Letter at 25–26; Wells Fargo Letter at 28.

special characteristics of CLOs make applying a credit risk requirement to CLOs inappropriate and counter-productive. *See infra* n.36. Failing to take into account these unique features of CLOs in promulgating the risk retention rule would run counter to the dictates of Section 941(b) and would constitute a failure to consider an important aspect of the problem and to examine the relevant data and make "a rational connection between the facts found and the choices made." *Motor Vehicles Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *see Bus. Roundtable v. SEC*, 647 F.3d 1144, 1148 (D.C. Cir. 2011). It would be arbitrary to impose more stringent obligations upon managers of one of the safest asset classes, unrelated to the causes of the financial crisis, while imposing equal or lesser obligations on entities associated with securities backed by far riskier assets. For example, it would be especially capricious for the agencies to impose credit risk retention requirements on CLO managers while also exercising their discretion to reduce credit risk retention obligations related to securities collateralized by residential mortgages, which directly gave rise to the crisis.

C. Administrative Law Implications Related to Effects upon Competition, Capital Formation, Market Efficiency and Investor Protection

Section 23(a)(2) of the Exchange Act, 15 U.S.C. §78w(a)(2), requires the Commission to consider the rule's impact on competition and prohibits rules that would impose a burden on competition not necessary or appropriate in furtherance of the Exchange Act. Section 2(b) of the Securities Act of 1933, 15 U.S.C. §78c(f), requires the Commission to consider, in addition to the protection of investors, whether the agency's action will promote efficiency, competition and capital formation. *See also Bus. Roundtable*, 647 F.3d at 1148 (SEC "has a unique obligation to consider the effect of a new rule upon 'efficiency, competition, and capital formation,' 15 U.S.C. §§78c(f), 78w(a)(2), 80a-2(c), and its failure 'to apprise itself – and hence the public and Congress – of the economic consequences of a proposed regulation' makes promulgation of the rule arbitrary and capricious and not in accordance with law." (quoting *Chamber of Commerce of U.S. v. SEC*, 412 F.3d 133, 144 (D.C. Cir. 2005)). The Commission has acknowledged that these requirements apply in this context.[29]

As part of the statutory requirement to consider the rule's impact on competition, the agencies necessarily must consider the relevant costs and benefits imposed by the rule, s*ee, e.g.*, *Bus. Roundtable*, 647 F.3d at 1148–51, and basic Administrative Procedure Act principles as applied in this context require the same result. *See, e.g.*, *Motor Vehicles Mfrs. Ass'n*, 463 U.S. at 43. Ignoring the economic and market costs and benefits imposed by a rule in this context would be arbitrary and capricious. In particular, the agencies must consider the rule's effect on smaller entities, especially where, as here, the rule threatens to nearly eliminate small entities as a source of competition altogether. The Board itself recommended that the agencies consider the potential effect of the rule "on the capacity of smaller market participants to comply and remain active in the securitization market." Federal Reserve Report at 84 (emphasis omitted). The Regulatory Flexibility Act, 5 U.S.C. §§ 601 *et seq*., which independently directs agencies to pay attention to their regulations' effect on small businesses, further underscores the need to consider

[29] *See* NPRM, 76 Fed. Reg. at 24150.

the rule's impact on smaller CLOs. (We note that the agencies' analysis and definition of small business based on the Commission's rules governing broker-dealers, *see* NPRM, 76 Fed. Reg. at 24146 (using definition found at 17 C.F.R. §240-10(c), (i)), is mistaken in this context because CLO managers are rarely broker-dealers.)

In contrast to the generalized and cursory assessment of incentives presented as economic analysis in the NPRM,[30] a proper economic, cost-benefit, and market analysis must assess and address the particular impact of the proposed rule on CLOs specifically and how that impact, in turn, can be expected to affect competition, credit availability and pricing, investor protections and services, and other relevant factors. For that analysis, the record overwhelmingly demonstrates that the proposed rule would harm competition, harm investors, harm the companies seeking credit through the syndicated loan market, and impose costs that dramatically outweigh the supposed benefits that themselves find no basis in the record.

As previously explained, the agencies' rule as proposed would dramatically reduce the formation of new CLOs, especially by smaller CLO managers unaffiliated with banks that originate syndicated loans. Requiring CLO managers to purchase an interest equivalent to five percent of the CLO's asset value would make CLOs economically unfeasible for the vast majority of current CLO managers. LSTA 2011 Letter at 15; *see also supra* pp. 14–16 (requiring a funded approach to risk retention would have a prohibitive effect on new CLO formation); LSTA White Paper (previously submitted to the agencies and attached as App. C). This inevitable decrease in CLO formation would in turn negatively affect the credit market. CLOs play a major role in supporting and broadening markets for syndicated loans.[31] Without a robust CLO sector, credit availability would decrease and credit costs would increase, creating ripple effects on the national economy. Many of the less established and mid-sized companies that currently access the syndicated loan market would face credit constraints or increased credit costs, forcing them to cut back their operations or forgo expansion. The result would be reduced employment, business efficiency, capital formation, domestic and international competition, innovation, and product development.

In addition, given the role of CLOs in providing a wide array of investment products, investors would be harmed by diminished competition and supply in the provision of CLO securities. By making CLO management more expensive and markedly reducing the suppliers of CLO investment products, the rule would lead to increased fees, decreased efficiency, and diminished availability of a range of product offerings.

Smaller businesses in particular would be adversely affected. Fee-supported, non-originating/balance sheet CLO managers are disproportionately smaller businesses. To the

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[30] *See id.* at 24149–55.

[31] *See, e.g.*, LSTA 2011 Letter at 17; ABA Committees Letter at 92–93; SIFMA Letter at 69; ASF Letter at 133; Morgan Stanley Letter at 18–19; Bank of America Supp. Letter at 22, 29–30; Wells Fargo Letter at 29; Chamber of Commerce Letter at 4–5.

extent the CLO market survived, it would be dominated by large finance and funds management businesses and their affiliates. Driving smaller CLO managers from the market would necessarily adversely affect competition by reducing the number of market participants and consolidating the CLO market in larger entities. It would also harm investors by drastically curtailing the choice of innovative managers and CLO securities available to them.[32]

Moreover, the agencies must consider whether applying the rule to Open Market CLOs entities would create sufficient benefits to justify these significant costs. *Bus. Roundtable*, 647 F.3d at 1154. Given the existing incentive alignments between CLO managers and investors, coupled with the unmatched transparency and performance history of CLOs,[33] the record does not support the conclusion that applying the rule to Open Market CLO managers would produce *any* benefits. *See id*. (Commission failed adequately to address whether existing structures "reduce the need for, and hence the benefit to be had from," the regulation). Comments submitted in response to the NPRM overwhelmingly support the conclusion that the proposed rule would create very significant costs and no offsetting benefits.[34] *Cf. id.*, 647 F.3d at 1148–49 (Commission acted arbitrarily and capriciously in part by failing "to support its predictive judgments" and "to respond to substantial problems raised by commenters"). For this reason, many commenters recommended exempting Open Market CLO managers from Section 941's requirements if the agencies eventually concluded that Section 941 applies to those managers.[35] IOSCO's conclusions also support this result.[36]

D. Administrative Law Obligation to Consider Reasonable Alternatives

Even if the agencies conclude that CLOs fall within the scope of Section 941, they must, under basic administrative law principles, consider alternatives to the approach they adopt and decline to adopt them only if there is a reasoned basis for doing so. *See, e.g.*, *Motor Vehicles*

[32] LSTA 2011 Letter at 16–17.

[33] *See, e.g.*, ASF Letter at 134; JP Morgan Letter at 58–59; Financial Securities Roundtable Letter at 30–31; Morgan Stanley Letter at 18–19; Bank of America Supp. Letter at 23; Cong. Himes, *et al.* Letter at 1.

[34] LSTA 2011 Letter at 14–16; *see also* SIFMA Letter at 70; ASF Letter at 137; Financial Services Roundtable Letter at 32; Morgan Stanley Letter at 19; Bank of America Supp. Letter at 29–30; Wells Fargo Letter at 29.

[35] LSTA 2011 Letter at 17–19; ABA Committees Letter at 93–95; SIFMA Letter at 71; ASF Letter at 138–139; Financial Services Roundtable Letter at 33; Bank of America Supp. Letter at 30; Wells Fargo Letter at 29.

[36] *See* Bd. of the Int'l Org. of Sec. Comm'ns, *Global Developments in Securitisation Regulation: Final Report*, Nov. 16, 2012. IOSCO recommends that risk retention regulation should address exemptions from the risk retention requirements and specifically cites managed CLOs as one example where such an exemption would be warranted. *Id.* at 48–49 ("Where risk retention is mandated, the applicable ... regulation and/or policy guidance should address ... Exceptions or exemptions from the risk retention requirements (i.e. exceptions and/or alternatives to maintaining a part of the risk in the balance sheet because of structural impediments, e.g. for managed CLOs, or because of risk alignment being achieved differently). These exemptions should be consistent with the objectives of incentive alignment and achieve equivalent regulatory outcomes. National and regional policy makers and regulators should clearly explain the basis for these exceptions or exemptions, and how equivalence of outcomes is achieved.").

Mfrs Ass'n, 463 U.S. at 48 ("An agency must cogently explain why it has exercised its discretion in a given manner ..."); *Chamber of Commerce*, 412 F.3d at 145 (Commission's failure to consider an alternative approach that "was neither frivolous nor out of bounds" violated the APA).

The LSTA previously presented one reasonable alternative in the form of an exemption for CLOs that meet specific criteria. *See* LSTA 2011 Letter at 17–20; *see also* LSTA First Supplemental Comments (Sept. 2, 2011); LSTA Second Supplemental Comments (Mar. 9, 2012). The proposed structure to have Open Market CLO managers retain credit risk presented in this letter is an additional reasonable alternative. At the very least, this proposal provides a basis for a fully warranted exemption from the risk retention requirement for CLOs that adopt the proposed structure.

* * * * *

For the reasons explained above, the LSTA requests that the agencies modify their rules to reflect the approach proposed in this letter. The proposed approach would achieve the objectives underlying Section 941 and avoid the most significant costs associated with applying the proposed rules to Open Market CLO managers.

The LSTA appreciates the agencies' consideration of this proposed approach and would be pleased to provide any additional information that would assist the agencies' staff in assessing or implementing it. Please feel free to contact Elliot Ganz at (212) 880-3003 or Meredith Coffey at (212) 880-3019 if you have any questions regarding this proposal.

Sincerely,

R. Bram Smith
Executive Director

Appendix A

April 1, 2013

Directors, Commissioners, and Staff Members of Financial Regulatory Agencies:

Re: **Notice of Proposed Rulemaking, Credit Risk Retention**
SEC (Release No. 34-64148; File No. S7-14-11); FDIC (RIN 3064-AD74);
OCC (Docket No. OCC-2011-0002); FRB (Docket No. 2011-1411);
FHFA (RIN 2590-AA43); HUD (RIN 2501-AD53)

This letter comments on the assessment of credit risk in the context of a Collateralized Loan Obligations (CLOs) with a particular emphasis on the risk borne by the equity holders of a CLO.

I. Assessment of the Credit Risk

Credit risk is the risk associated with the debtor defaulting on its payment obligations. It is typically measured as expected loss borne by investors, where expected loss is the difference between promised payoff and expected payoff. For example, credit rating—a measure of credit risk—is a relative assessment of expected losses.[1] At a high level, expected loss is a function of probability of default and anticipated loss given default projected over the maturity of the asset.

The assessment of the credit risk of CLO obligations follows a two-step approach: first, assessment of the collateral pool default distribution and, second, structural modeling of the cash flows to CLO obligations based on the specifics of the CLO deal. These two steps map into the two fundamental steps of creating a CLO: (i) creation of the collateral pool, and (ii) structuring (or "tranching") of the cash flows from the collateral, a process that enables creation of new obligations of a differential seniority. Diversification coming from pooling of the collateral *reduces* the aggregate risk of the CLO obligations and assessment of credit risk needs to account for it. However, tranching of the collateral pool does not change the aggregate credit risk of the securitized pool. The aggregate expected loss of a CLO is independent of the obligations structure.

CLO obligations are issued on portfolios of loans. To assess the risk embedded in CLO collateral pool, one needs to determine not only the default probabilities of the individual

[1] The rest of this letter uses "credit risk" and "expected loss" interchangeably.

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instruments in the CLO collateral pool[2], but also the default correlation among these instruments. This means that the calibration of credit risk borne by CLO obligations requires a quantitative model that maps scenarios of collateral losses to the probabilities of such events occurring (a model of the CLO-collateral default distribution).

There is a range of statistical methods to assess the CLO-default distribution. The most popular models are based on either binomial expansion methods or Monte Carlo simulations. The trade-off in choosing a computational approach is between technical tractability and modeling efficiency on the one hand, and amount of explicit modeling assumptions (or expected precision of the model fit) on the other hand. However, different computational approaches are not mutually exclusive, and are usually used in parallel. Furthermore, the actual ratings assigned by the credit rating agencies are likely to be based not only on the quantitative factors, but also on the qualitative input.

The second step in assessing expected loss of CLO obligations models cash flows to individual securities. As mentioned before, while the risk of the underlying collateral pool is fixed, tranching reallocates this risk toward more junior CLO obligations. Thus, the modeling of the cash flows is meant to accurately capture priority of payment (the "waterfall") under different scenarios and overcollateralization requirements. Typically, different scenarios of timing of default, recovery delays, reinvestment assumptions, interest rate scenarios, and exchange rate risk (in cases of currency exposure) are also explicitly modeled as part of the cash flows (as opposed to default distribution).

II. Credit Risk of CLO Obligations and Implications for Credit Risk Retention Rule

The purpose of securitization is to create claims with differential risk characteristics by *concentrating* credit risk in the more junior tranches through contractual subordination. Expected loss is an additive measure of risk; expected loss on the collateral pool is the value-weighted sum of expected losses on the CLO tranches.

To illustrate the risk distribution across different tranches of a typical CLO, I first use Moody's simplified Binomial Expansion Technique ("BET") methodology.[3] In the example used in Moody's "The Binomial Expansion Method Applied to CBO/CLO Analysis," December 1996, the aggregate expected loss rate (expected loss scaled by promised payoff) of the collateral

[2] Default rates of single-name securities can be determined based on the historical default rates or implied from market prices.

[3] BET is an analytically tractable methodology used for rating CLO obligation that implicitly models default correlations of the underlying collateral. Diversity Score (a statistical parameter in a binomial distribution) captures the degree of correlation of the underlying assets, with higher Diversity Score indicating lower correlation across collateral assets. The CLO collateral pool is a portfolio of heterogeneous correlated securities with different probabilities of default. BET approximated the default distribution of the actual collateral pool with an equivalent portfolio of homogeneous and independent securities each having the same probability of default. Once the Diversity Score and probability of default are assigned, default distribution is computed using binomial formula. The degree of diversification of collateral (captured by correlation of default of the underlying assets) is typically assessed based on diversification across different geographical regions and industries.

pool is roughly 15.2%. The expected loss rate on the senior tranche (80% of the CLO notional value) is estimated at 0.067%. The residual risk is carried by the junior claims representing 20% of the notional. This means that the expected loss rate of the junior tranches is roughly 75.7%.[4] So, 99.6% of the credit risk of the CLO pool is carried by the junior claims, which in this example represent 20% of the CLO notional.

The precise economic magnitudes of the expected losses depend on the assumptions (which should be specific CLO in questions). One way to approximate a representative credit risk distribution across different tranches is to look at the historical numbers. Approximately 75% of the notional amount of CLO obligations corresponds to AAA-rated securities with the corresponding expected loss around 0.01%[5]. If the expected loss of the collateral pool is 15.2% (taken from the Moody's example above)[6], then the difference in expected losses must accrue to the junior 25% of CLO claims on value weighted bases. This means that 99.95% of the credit risk of the CLO pool is carried by the junior claims that represent 25% of the CLO notional.

A vertical retention rule abstracts from the structure of the CLO obligation. Any complete vertical slice of the CLO will have the expected loss of the collateral pool. Taking the BET-based example above, a retention rule of a 5% of a vertical slice of the CLO (5% of the notional amount) has an expected loss rate of 15.2%. If the CLO manager retains such vertical slice, *in expectation*, he/she would lose \$0.76 for each \$100 of the CLO notional amount ($= \$100 * 5\% * 15.2\%$).

99.6% of the expected dollar losses is coming from the junior 20% component of the vertical slice. In this example, retention of junior component (which could be composed of several junior notes and equity) in amount equal to 5% of the par value of all CLO notes (\$5 in equity for each \$100 of the CLO notional amount) would increase expected dollar losses on the retained piece to \$3.79 ($= \$100 * 5\% * 75.7\%$). That is, in this example, the same notional amount in equity carries nearly five times (roughly $1/0.2$) the expected losses of the vertical slice. This simple calculation highlights the fact that the notional exposure in the context of CLO obligations does not factor in allocation of risk. In this example, to match the credit risk exposure of a 5% vertical slice, an investor would need to hold only 1.004% of notional amount in junior obligations.

These calculations illustrate the sharp increase in expected losses to the junior tranches (as compared to the senior tranches) and its implications for the risk-retention rules. In a typical CLO, the junior piece is further tranched into increasingly subordinated securities, with equity carrying most of the risk. For example, obligations immediately senior to CLO equity on average

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[4] $75.7\% = (15.2\% - 80\% * 0.067\%)/20\%$.

[5] Computed using representative structure of a 2006 vintage CLO from "What are CLO's and how do they work?", *Babson Capital White Paper*, July 2009, an average maturity of six years and Moody's historical expected losses.

[6] Based on Moody's historical data, 15.2% default rate is equivalent to an average pool rating of B3. This overstates the underlying risk given that, on average, CLO collateral pool is rated "B1"/"B+".

are rated "BB". Based on historical numbers, the corresponding expected loss of these notes is approximately 5.4%. This again points to the fact that most of the credit risk is carried by the first-loss position (equity).

In what follows, I provide a simplified calibration of credit risk embedded in different risk-retention scenarios. Specifically, I comment on the risk retention proposal as formulated by Loan Syndication and Trading Association ("LSTA") in their third supplemental comments in response to the joint Notice of Proposed Rulemaking, 76 Fed. Reg. 24090, concerning risk retention and the implementation of Section 941 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (draft dated March 14, 2013). These calibrations are grounded in the principles outlined above.

Unless otherwise stated, the calculations below build on numbers and assumptions used in the benchmark projections provided to me by LSTA. My comments should not be interpreted as an evaluation of the LSTA benchmark CLO model, but rather as an evaluation of allocation of credit risk in the context of this model. The representative CLO structure used in the LSTA model is reported in Table 1.

Table 1: Assumed CLO Capital Structure

Tranche	% Par Subordination	% Capital	Notional
Class A-1	36.0%	62.3%	256,000,000
Class A-2	24.5%	11.2%	46,000,000
Class B	16.5%	7.8%	32,000,000
Class C	11.5%	4.9%	20,000,000
Class D	7.5%	3.9%	16,000,000
Equity		10.0%	41,000,000
TOTAL			**$411,000,000**

Source: LSTA.

A. Horizontal Retention Rule

"Horizontal retention rule" is defined as manager's purchase of 5% of the CLO's equity securities.

I use Moody's idealized expected losses rates[7] to back up the expected loss for each tranche. Moody's ratings for each tranche are assigned based on the ratings of a 2006 vintage CLO[8]. (These calculations are rough and should be treated as an approximation. Where possible,

[7] Source: "Moody's Approach to Rating Collateralized Loan Obligations," *Moody's Investors Service*, June 22, 2011.

[8] Source: "What are CLO's and how do they work?", *Babson Capital White Paper*, July 2009.

I took a conservative approach.) The expected losses on equity are computed as a residual risk based on a 7% and 8% average expected loss of the CLO pool for the 6- and 10-year scenarios respectively. [9] The calculations take into consideration the fee structure (described below). The numbers are reported in Table 2.

Table 2: Expected Losses of the CLO Capital Structure

Tranche	% Capital	Moody's Rating	Expected Loss Rate (of Each Tranche)	
Scenario			**6 Years**	**10 Years**
Class A-1	62.3%	Aaa	0.0022%	0.0055%
Class A-2	11.2%	Aa1/Aa2	0.023%-0.049%	0.055%-0.110%
Class B	7.8%	Aa3/A2	0.101%-0.321%	0.220%-0.660%
Class C	4.9%	Baa1	0.754%	1.430%
Class D	3.9%	Ba2	5.374%	7.425%
Equity	10.0%		66.08%-66.11%	73.84%-74.24%

Under these assumptions, by holding 5% of the CLO equity CLO manager is exposed to 4.55% of CLO credit risk in the 6-year scenario and 4.45%-4.47% of CLO credit risk in the 10-year scenario.[10]

B. Class M Notes

"Class M Notes" are structured to condition CLO manager's fees on the performance of the CLO's securities. "Subordinated" Class M Notes are paid pari passu with other notes issued by the CLO. "Incentive Notes" are paid only after the holders of the CLO equity securities have realized an IRR of 12%.

Given the unfunded nature of these notes, unlike funded CLO obligations, these notes cannot experience loss of *financial* capital. However, CLO manager has an opportunity cost of his/her time and effort. In addition, there is potentially a significant reputation capital at stake (intangible equity). In this sense, the manager is not indifferent to the outcomes where he/she receives no fees because there is no compensation for his/her time and effort, and potential damage to the intangible equity. The fair value—present value, since these securities are not traded—of the stream of fees is *not* zero because it reflects the market value of manager's input. (There is a direct conceptual parallel with the way a corporate CEO compensation is set up.)

[9] The 6-year scenario assumes that surviving loans are paid at par ("called") at the end of year 6. The 10-year scenario is more conservative. The 7% and 8% average default rates for the 6- and 10- year scenarios are in line with LSTA projections. Note that because I rely on historical (i.e., fixed) expected losses for senior tranches, a lower average collateral default rate leads to a more conservative interpretation of the risk retention rules.

[10] Conceptually, the 10-year scenario is riskier than the 6-year scenario, so credit risk of the equity tranches (or any fixed portion of it) should be higher. In this letter, expected losses on equity are computed as a residual risk so one does not see such increase. In other words, the two scenarios presented in Table 2 are meant to be interpreted as a sensitivity analysis and not as a strict comparison of the two scenarios.

Under the assumption that the CLO market is competitive, the present value of the fee stream reflects manager's fair compensation.

Table 3 reports CLO manager's expected losses (loss of fair compensation) based on the fee cash-flows and discount rates provided by LSTA.

Table 3: Expected losses of Class M Notes

Scenario	% of the CLO Notional	Expected Loss 6 Years	Expected Loss 10 Years
Senior Notes[11]	1.03%	0.0%	0.0%
Subordinated Notes	2.01%	1.4%	2.5%
Incentive Notes	0.48%	73.3%	87.8%

Source: LSTA.

Based on the numbers in Table 3, in the 6-year scenario, Incentive Notes and Subordinated Notes are respectively exposed to 5.22% and 0.33% of the CLO credit risk (total of 5.55% of the CLO credit risk). In the 10-year scenario, Incentive Notes and Subordinated Notes are respectively exposed to 5.24% and 0.63% of the CLO credit risk (total of 5.87% of the CLO credit risk).

In conclusion, under the assumption specified above, if a manager retains 5% of the equity and receives fees from the Class M note structure, the manager would be retaining at least 10.1% of the CLO credit risk.

Sincerely,

Victoria Ivashina
Associate Professor of Finance
Hellman Faculty Fellow

[11] For Senior Notes, I assume expected loss of 0%. Other numbers in Table 3 are based on the LSTA projections.

Appendix B

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EDUCATION

NEW YORK UNIVERSITY, Stern School of Business
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PONTIFICIA UNIVERSIDAD CATOLICA, Lima, Peru
B.A. Economics, 1998

APPOINTMENTS

HARVARD BUSINESS SCHOOL
Associate Professor of Finance, 2011 – present
Hellman Faculty Fellow, 2011 – present
Berol Corporation Fellow, 2008 – 2009
Assistant Professor of Finance, 2006 – 2011
MBA: Private Equity Finance, 2010 – present; First-year Finance, 2006-2009
Executive Education: CFA's Institutes Investment Management Workshop (2009-2012);
Corporate Restructuring, Mergers, and Acquisitions (2011-2012)

NATIONAL BUREAU OF ECONOMIC RESEARCH
Faculty Research Fellow, 2010 – present

SHORT ACADEMIC VISITS:

University of Chicago, Booth School of Business, September-November 2009
The Federal Reserve Board of Governors in Washington DC, May 2009

RESEARCH INTERESTS

Applied Corporate Finance, Financial Intermediation, Banking, Private Equity, Corporate Debt

RESEARCH

Published Refereed Articles

"Securitization without Adverse Selection: The Case of CLOs" (with Efraim Benmelech and Jennifer Dlugosz), *Journal of Financial Economics*, 2012 (106): 91-113.
Featured in *Dow Jones Newswires*, February 4, 2009.

"The Private Equity Advantage: Leveraged Buyouts Firms and Relationship Banking" (with Anna Kovner), *Review of Financial Studies*, 2011 (24): 2462-2498.

"Institutional Stock Trading on Loan Market Information" (with Zheng Sun), *Journal of Financial Economics*, 2011 (100): 284-303.
Featured in *The Wall Street Journal*, March 7, 2008; *The Wall Street Journal*, July 3, 2010.

"Institutional Demand Pressure and the Cost of Corporate Loans" (with Zheng Sun,) *Journal of Financial Economics*, 2011 (99): 500-522.

"Loan Syndication and Cyclicality" (with David Scharfstein), *American Economics Review*, (Papers and Proceedings) 2010 (100): 57-61.

"Bank Lending during the Financial Crisis of 2008" (with David Scharfstein), *Journal of Financial Economics*, 2010 (97): 319-338.

Featured in *The Wall Street Journal*, November 17, 2008; *Boston Globe*, November 21, 2008; *The Economist*, November 20, 2008; *Time*, December 15, 2008; *Investor's Business Daily*, December 15, 2008; *Financial Times*, February 5, 2009; Congressional Budget Office Testimony, January 27, 2009; Congressional Subcommittee on Financial Institutions Testimony, March 4, 2009.

"Asymmetric Information Effects on Loan Spreads," *Journal of Financial Economics*, 2009 (92): 300-319.

"Bank Debt and Corporate Governance" (with Vinay Nair, Anthony Saunders, Nadia Massoud and Roger Stover), *Review of Financial Studies*, 2008, 22(1): 41-77.

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"The Ownership and Trading of Debt Claims in Chapter 11 Restructurings" (with Ben Iverson and David Smith), under revision, *Journal of Finance*.
Featured in *The Deal Pipeline*, January 26, 2011; *Loan Syndication and Trading Association Weekly Review*, April 27, 2012.

"Cyclicality of Credit Supply: Firm Level Evidence" (with Bo Becker), under revision. *Journal of Monetary Economics*.
Featured in *Dow Jones Newswires*, June 25, 2010; *European Finance Review*, December 2012-January 2013.

"Combining Banking with Private Equity Investing" (with Lily Fang and Josh Lerner), under revision, *Review of Financial Studies*.

"Reaching for Yield in the Bond Market" (with Bo Becker).
Featured in *Creditflux Magazine*, February 2013.

"Dollar Funding and the Lending Behavior of Global Banks" (with David Scharfstein and Jeremy Stein), NBER Working Paper Series, No. 18528.

"The Disintermediation of Financial Markets: Direct Investing in Private Equity" (with Lily Fang and Josh Lerner).

Case Studies

"HCA, Inc. LBO Exit," HBS Case 813-056.
"TPG China: Daphne International," HBS Case 813-055.
"The Sale of Citigroup's Leveraged Loan Portfolio" (with David Scharfstein), HBS Case 209-080.
TN: With David Scharfstein, HBS Teaching Note 212-024.
"Momentive Performance Materials, Inc." (with David Scharfstein), HBS Case 210-081.
"Restructuring CIT Group (A)" (with David Scharfstein), HBS Case 211-023.
"Restructuring CIT Group (B)" (with David Scharfstein), HBS Case 211-037.
"Private Equity Valuation in Emerging Markets" (with Paul Gompers), HBS Note 213-043.
"Rosetree Mortgage Opportunity Fund" (with André F. Perold), HBS Case 209-088.
TN: With André F. Perold, HBS Teaching Note 210-065.
"Delphi Corp. and the Credit Derivatives Market (A)" (with Stuart Gilson), HBS Case 210-002.

INVITED AND CONFERENCE PRESENTATIONS

2013: Babson College, Oxford University (Saïd), Scheduled: World Bank, Tulane University, Columbia Business School, University of Pittsburgh, Fordham University, Bocconi University, Chicago Fed

2012: Dartmouth University (Tuck), Yale University, Ohio State University, NYU Stern (Accounting Summer Camp), NBER Summer Institute Corporate Finance Meeting, New York Fed/NYU Private Equity Conference, NBER Corporate Finance Meeting, Greenwich Roundtable

2011: American Finance Association, American Economic Association, Indiana (Kelly), DePaul-Chicago Fed Seminar, The Bank of Spain, Universidad Nova de Lisboa, European Central Bank, NHH, University of Kentucky, Financial Intermediation Research Society, Federal Reserve Board, NBER Monetary Economics, Stanford (Capital Structure Summer Workshop), European Finance Association

2010: American Finance Association, American Economic Association, Harvard Law School, University of North Carolina, University of Southern California, Virginia Tech, University of Amsterdam, University of Mannheim, Boston University, Federal Reserve Bank of St. Louis, Bank of Canada, Financial Intermediation Research Society, Western Finance Association, European Central Bank, New York Fed/NYU Stern Conference on Financial Intermediation, Boston University Conference on Credit Markets, Asset Prices and Economic Fluctuations, Federal Reserve Bank of San Francisco, UCSD

2009: American Economic Association, University of Virginia (Darden), Federal Reserve Bank of New York, University of Kansas Southwind Finance Conference, University of Chicago (Booth), Laurier-Bank of Canada Finance Conference, Federal Reserve Board, IDC Caesarea Center Conference, Financial Intermediation Research Society, Yale Conference on Financial Crisis, European Finance Association, University of Florida, Wharton, UIUC, HKUST Finance Symposium, UniCredit Conference on Banking and Finance

2008: American Finance Association, Financial Industry Regulatory Authority, Federal Reserve Bank of Boston, University of Wisconsin, Duke University (Fuqua), UIUC, Federal Reserve Bank of New York, LBS Private Equity Institute Symposium, ECWF Conference, Western Finance Association, European Finance Association, Bentley College, MIT (Sloan)

2007: Princeton University, Harvard Business School, U.S. Securities and Exchange Commission, European Finance Association, NBER Summer Institute, TCU, Arizona State University (Carey)

2006: University of Michigan (Ross), Harvard Business School, Boston College, Stanford University, London Business School, Northwestern University (Kellogg), Dartmouth University (Tuck), Cornell University

2005: Financial Management Association, Federal Reserve Bank of New York and the Salomon Center at NYU Stern, New York City Area Conference on Financial Intermediation, LBS Doctoral Conference, European Finance Association

FELLOWSHIPS AND AWARDS:

The Nordea Best Corporate Finance Paper, European Finance Association, 2011
Award for the Outstanding Paper in Empirical Finance, Southern Finance Association, 2006
Larry Goldberg Prize for the best Ph.D. thesis in Financial Intermediation, NYU, 2007
David M. Graifman Memorial Award for the best Ph.D. thesis, NYU, 2006
Nasdaq Derivatives Research Project Fellowship, Stern School of Business Salomon Center, 2006
Doctoral Fellowship, Stern School of Business, 2001- 2006
Graduate Fellowship, Universidad del Pacifico and the Superintendency of Banking, 1998
Excelencia Union Medal, for outstanding academic achievements in economics, 1998

OTHER ACTIVITIES:

Non-academic positions:

Associate, Superintendency of Banking and Insurance, Lima, Peru, 1998-2000

Editorship:

Associate Editor, *Journal of Banking and Finance* (2011-current)

Committee:

NBER Summer Institute Corporate Finance (2011); Western Finance Association (2013- 2010); IDC Caesarea Center Conference (2013-2012); European Finance Association (2013-2011); Financial Management Association (2012-2007); New York Fed / NYU Stern Conference on Financial Intermediation (2013-2008); Olin Business School Annual Conference (2012 - 2010); American Finance Association (2008)

Discussant:

NBER (2012, 2011, 2010, 2009); American Finance Association /American Economic Association (2013, 2012, 2011, 2010, 2007); Western Finance Association (2009, 2008); European Finance Association (2009, 2008, 2007); LBS Private Equity Institute Symposium (2009); New York Fed/NYU Stern Conference on Financial Intermediation (2012, 2010, 2007); Financial Intermediation Research Society (2011, 2010, 2009, 2006); Entrepreneurial Finance and Innovation Conference (2010)

Referee:

Journal of Finance; *Journal of Financial Economics*; *Review of Financial Studies*; *Quarterly Journal of Economics*; *Journal of Political Economy; American Economic Review*; *American Economic Journal: Macroeconomics; Journal of Monetary Economics*; *Journal of Economic Literature*; *Journal of Money, Credit and Banking*; *Journal of Banking and Finance*; *Journal of Financial Intermediation*; *Review of Finance*; *Management Science*

Other:

Citizenship: Russia/USA; Fluent in Russian, Spanish and English

Appendix C

THE IMPACT OF RISK RETENTION ON CLOs AND OTHER MEANS OF ALIGNING INCENTIVES

The LSTA[1] would like to highlight how language in Title IX, Subtitle D, Section 941 of the Dodd-Frank Wall Street Reform and Consumer Protection Act could materially impact the syndicated loan market. Syndicated loans in the United States provide $2.5 trillion of financing to U.S. companies[2]. Borrowers range from large blue-chip companies like IBM to industrial companies like U.S. Steel to middle market companies like Sizzling Platter (which owns Little Caesars and Sizzler). The syndicated loan market – a market that continued to provide financing to U.S. companies in the downturn – is a critical component of U.S. corporate financing. Collateralized Loan Obligations (CLOs) provide considerable support to the non-investment grade segment of the syndicated loan market. However, the risk retention provisions of Title IX could have a considerable impact on CLOs – and could materially reduce credit availability to American companies.

Fortunately, the Dodd-Frank Act recognized that different types of securitizations might require different forms of alignment of interests between the securitizers and the investors. In turn, the Dodd-Frank Act mandated that the Federal Reserve Board, in consultation with the other Agencies, conduct a study of the impact of the new credit risk retention requirements on the securitization markets. In the resulting Study[3], the Federal Reserve Board recommended that "that rulemakers consider crafting credit risk retention requirements that are tailored to each major class of securitized assets." Moreover, in addition to specific risk retention amounts, the Fed Study also recommended that regulators "consider the potential for other incentive alignment mechanisms to function as either an alternative or a complement to mandated credit risk retention."

To discuss these issues, this letter will review i) what managed CLOs are, how they differ from balance sheet CDOs and how they performed in the financial crisis, ii) how the form and amount of risk retention could potentially impact future CLO formation, iii) the ramifications for credit formation for U.S. non-investment grade companies if CLO generation does not revive, and iv) how the fee structure in a CLO could be an alternative method of aligning the incentives of managers and investors.

Why are CLOs important and unique?

The syndicated loan market supported the growth of Corporate America in the 2000s. According to the S&P/LSTA Leveraged Loan Index, the volume of outstanding term loans to non-investment grade companies totaled roughly $600 billion at the end of 2008. CLOs participate in these loans; indeed, they currently provide nearly $250 billion of financing to U.S. non-investment grade borrowers. However, CLOs are just one of a number of participants in these loans. Moreover, instead of the loans being offloaded from a bank's balance sheet via a balance sheet CLO (the originate-to-distribute model), managed CLOs are more

[1] The Loan Syndication and Trading Association ("the LSTA") is a trade organization that represents over 300 firms engaging in loan syndication and trading activities. The LSTA's membership includes buy- and sellside institutions, as well as law firms, consulting firms, accounting firms and information providers. The LSTA's objective is to promote a fair, orderly, efficient and growing loan market and provide leadership in advancing and balancing the interests of all market participants.

[2] Shared National Credit Review, September 2010. The Shared National Credit Review is jointly run by the Federal Reserve, the FDIC, the OCC and the OTS, and reviews and classifies any loan or loan commitment of $20 million or more, held by three or more federally supervised institutions.

[3] Report to the Congress on Risk Retention, issued October 19, 2010. Available at http://federalreserve.gov/boarddocs/rptcongress/securitization/riskretention.pdf

akin to managed funds where investors are seeking to invest in loan assets. In fact, managed CLOs are unique in many facets, including:

- Managed CLOs are not created to facilitate "originate to distribute" activities by the banks. While banks do organize CLOs, these banks generally are not securitizing their own assets. Instead banks that structure CLOs ("structuring banks") work as agents for asset managers such as PIMCO and Eaton Vance. When a CLO is being put together, an asset manager generally will engage a structuring bank to arrange the CLO, and provide short term financing so that the manager can build a portfolio. A portion of these loans might have been originated by the structuring bank, but most of them are originated by other banks. *Most importantly, the asset manager tells the structuring bank which loans to buy*. The asset manager has discretion over asset purchase and disposition in the portfolio after closing. In turn, the banks are not the "sponsors" or "originators" of the CLOs.

- The vast majority of CLO portfolios are *actively* managed by experienced asset managers such as Eaton Vance, PIMCO and INVESCO.

- Most CLOs own portions of just 150-200 large corporate loans; the CLO managers know each of the loans, and make daily decisions on whether to buy or sell these loans. CLOs do not make material investments in asset-backed securities.

- The underlying corporate loans are large (usually over $100 million) and transparent: Most of these loans are publicly rated by Standard & Poor's, Moody's or Fitch, they are liquid and trade in the secondary loan market, and they are valued daily by third party pricing services.

- CLOs have many tests that require managers to maintain the quality and diversity of their loan portfolios. These tests, which include overcollateralization tests, weighted average ratings factor tests, interest coverage tests, and weighted average life tests among others, are mandated by the CLOs' indentures and an independent trustee verifies the tests.

- Investors in CLOs receive monthly trustee reports that detail all the tests, the performance of the portfolio, and the performance of each individual loan.

- CLOs have structures to align the interest of managers and investors. The CLO manager has the majority of his/her management fees paid at the same time as or just prior to the equity receiving payments. The CLO may also have an incentive fee if the equity earns a hurdle IRR. In addition, some managers hold equity in their CLOs.

How have CLOs performed?

Considering the magnitude of the financial crisis, CLOs have performed remarkably well. Despite suffering through the worst financial downturn since the Great Depression, *85% of CLO Aaa tranches remain rated Aa or better* – a remarkably good performance. In addition, CLOs did not suffer the widespread defaults seen on CDOs of ABS; just five CLOs (out of more than 500 rated by Moody's) suffered an EOD – and most of these were cured. Moreover, recognizing their strong performance, the rating agencies have begun *upgrading* managed CLO notes. Through September 2010, Moody's upgraded 285 CLO tranches – or 8.5% of the CLO tranches outstanding.

What is the impact of risk retention on potential CLO formation?

In order to help quantify the impact of risk retention on future CLO formation, the LSTA produced a questionnaire for its CLO constituency, which asked how different forms of retention would impact their business. We gathered survey responses from 23 CLO managers, who collectively manage more than $99 billion in CLO AUM (assets under management). This represents 40% of the outstanding U.S. CLO universe.

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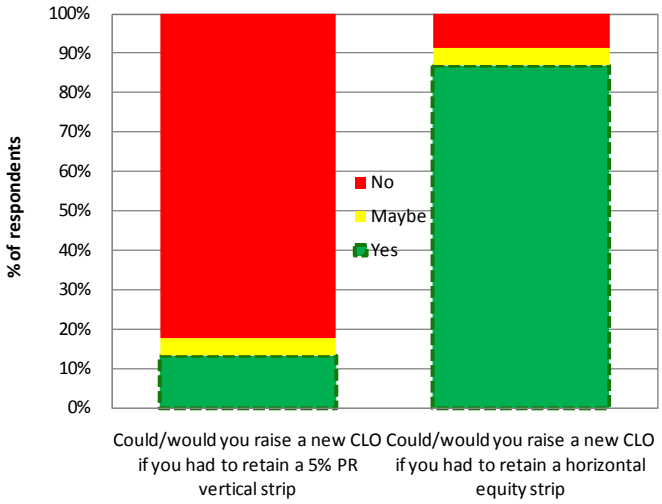
The LSTA first asked CLO managers whether they could retain risk in the form of a 5% vertical pro rata strip. As Fig. 1 indicates, only 13% of respondents (by count) said they could retain 5% risk in a vertical pro rata strip. The majority of respondents said that they did not have sufficient capital to retain a 5% vertical pro rata strip. The LSTA also asked managers whether they could retain risk in the form of equity/first loss position (in any amount). As Fig. 1 also illustrates, 87% of the CLO managers said they could retain some amount of equity/first loss position.

Fig. 1: How could you retain risk?



Source: LSTA CLO member poll

However, this does not mean the managers could retain equity/first loss position of 5% of the face value of the CLO. (Again, the majority of respondents said they did not have sufficient capital to retain that large a position.) Moreover, it's not clear that the Dodd-Frank Act would actually envision them retaining equity equivalent to 5% of the face value of the CLO. The Dodd-Frank Act says that *"…the Federal banking agencies and the Commission shall jointly prescribe regulations to require any securitizer to retain an economic interest in a* ***portion of the credit risk for any asset*** *that the securitizer, through the issuance of an asset-backed security, transfers, sells, or conveys to a third party."* Because losses in a portfolio eat into the value of the equity first, the credit risk of a portfolio of loans is concentrated in the equity or first loss position of a CLO. Thus, holding 5% of the credit risk of the portfolio of loans should require much less equity than 5% of the face value of the CLO. This concept was explained in a study published in 2005.[4] In this study, the author calculated that in a base scenario of constant default probability, nearly 70% of the cumulative expected loss of a portfolio of corporate loans was concentrated in the 0-2.4% first loss position of the sample CLO (Fig. 2). While only an example, this illustrates how the credit risk is concentrated in the CLO's first loss position. In turn, 5% of the credit risk of a portfolio of loans in a CLO should be *considerably less than equity equivalent to 5% of the face value of that CLO.*

[4] Jobst, Andreas A., Asset Pricing and Investor Risk in Subordinated Asset Securitisation (April 2005). Available at SSRN: http://ssrn.com/abstract=703861

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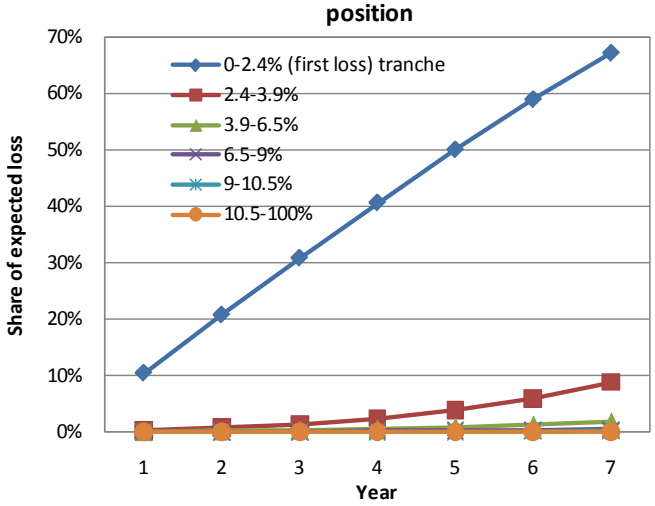
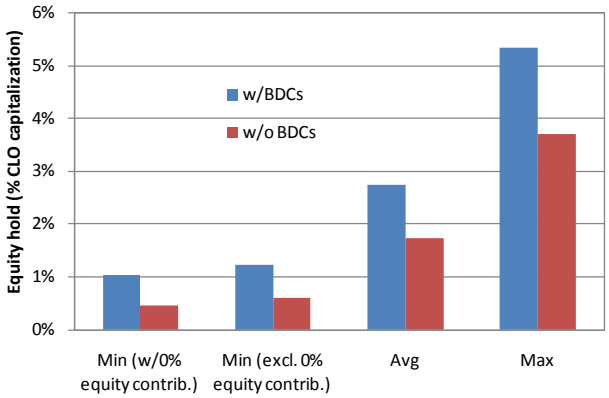
Fig. 2: Most expected loss resides in equity/first loss position



Source: IMF

In fact, CLO managers often do hold equity in their CLOs. The LSTA polled CLO managers, asking them how much equity they historically have contributed. As Fig. 3 illustrates, excluding Business Development Corporations (which often hold the majority or all of the equity in a CLO), CLO managers contributed average equity of roughly 1.7% of the face value of their CLOs.[5] However, the average includes wide variations, ranging from very small amounts of equity for smaller CLO businesses (which often utilized other forms of 'skin in the game') to considerable amounts of equity for businesses that used CLOs as a financing tool and typically retained much of the equity.

Fig. 3: Historical CLO equity holds by managers



Source: LSTA CLO member poll

Looking forward, the LSTA asked respondents how much equity/first loss position they realistically could retain and still raise new CLOs. As Fig. 4 illustrates, the CLO managers on average said that they could retain 2% equity and still raise new CLOs.

[5] This question was issued after the CLO formation questionnaire; there were 13 respondents to this questionnaire, who collectively manage $53 billion of CLO AUM.

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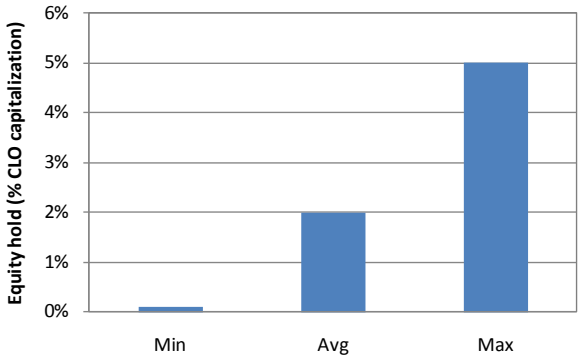
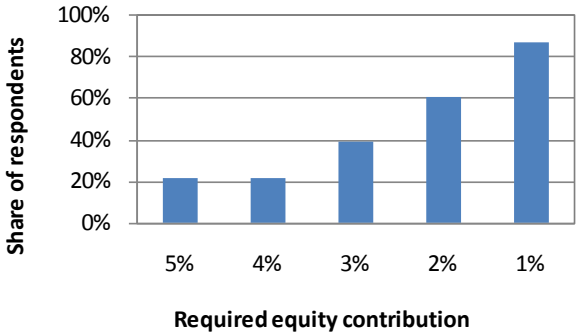
Fig. 4: How much equity could you retain?



Source: LSTA CLO member poll

However, as Fig. 5 illustrates, the capacity to hold equity was highly varied: Only a few managers (22%) said they could retain a 4-5% equity strip, while others could retain far less. Still, if the required retention were reduced, more managers could hold the required equity: At 3% equity retention, 39% said they could raise a new CLO. At 2% equity retention, 61% said they could raise a new CLO. At 1% equity retention, 87% said they could raise a new CLO. Nevertheless, there are a number of smaller managers that would struggle to provide 1% of the face value of a CLO; because they are smaller, they do not have several million dollars to contribute as equity to each CLO. In the past, the market has asked such managers to provide "skin in the game" in other forms, such as lower fees until the CLO equity has earned a certain hurdle IRR. Without recognizing such nuances, risk retention requirements could squeeze smaller managers out of the market.

Fig. 5: Percent of respondents that could raise a new CLO with various equity retention requirements



Source: LSTA CLO member poll

Not only would the amount of risk retention affect who could raise a CLO, it also could significantly impact the volume of CLO generation. Fig. 6 compares the current outstanding CLO AUM of the managers polled ($99 billion) against the volume of new CLOs they believe they could raise, depending on the amount of equity they would have to hold. If they were required to hold 5% equity (as share of face value of the CLO), the managers estimated they could collectively raise roughly $24.8 billion of new CLOs. If they were required to hold 4% equity, CLO generation might increase to $25.3 billion. If they were required to hold 3% equity, CLO generation might increase to $29 billion. At 2% equity, estimated CLO generation jumps to $44.7 billion. At 1% equity, the managers estimated they might be able to raise $61 billion in new CLOs.

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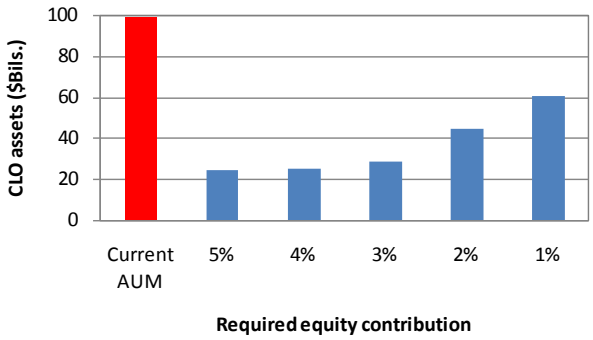
Fig. 6: What is dollar volume of potential CLO formation assuming various equity retention requirements



Source: LSTA CLO member poll

While these estimates are qualitative and are an attempt to measure a market that might be materially different in the future, we nonetheless believe these results can help quantify the directional impact of risk retention on future CLO generation.

Why does it matter if CLO formation is reduced?

For nearly 20 years, CLOs have provided financing to U.S. companies. The recovery of CLO formation is important for U.S. non-investment grade companies to obtain sufficient growth capital in the next several years. In addition, these companies also need to cope with their refinancing needs. Today, there are roughly $550 billion of non-investment grade term loans outstanding; CLOs currently hold approximately $250 billion of these loans.

The bulk of these non-investment grade term loans will mature in the coming years. At the same time that these companies require refinancing, the existing vintage of CLOs will be ending their reinvestment period – and will not be able to participate in new loans. Ultimately, there could be a roughly $250 billion gap between companies' refinancing needs and lenders' ability to provide financing. This gap could materially drive up the cost of credit for companies; in extreme situations, some companies could face liquidity crises – or even bankruptcy. In addition to that scenario, the disappearance of CLOs could materially reduce growth capital for U.S. non-investment grade companies.

The potential shut-down of a market that has supported non-investment grade companies for nearly two decades, that is pivotal to providing growth capital to these companies, and that could supply refinancing capital would be very unfortunate. It is doubly unfortunate if this is the inadvertent result of a policy that was intended for a very different product.

Would other mechanisms to align interests be effective?

The Federal Reserve Study asks regulators to "consider the potential for other incentive alignment mechanisms to function as either an alternative or a complement to mandated credit risk retention." The managed CLO market already has developed mechanisms to align the interests of managers and investors. In addition to the manager often retaining a slice of equity, CLOs utilize a tiered fee structure that includes a senior fee (which is paid quarterly, regardless of the CLO performance) and a larger sub fee (that is only paid if the CLO performs, if certain tests – like overcollateralization tests – are met, and if interest on all the senior notes are paid). The subordinate fee is paid only if these criteria are met. In addition, the majority of CLOs also have some form of incentive fee if the equity earns a certain hurdle IRR.

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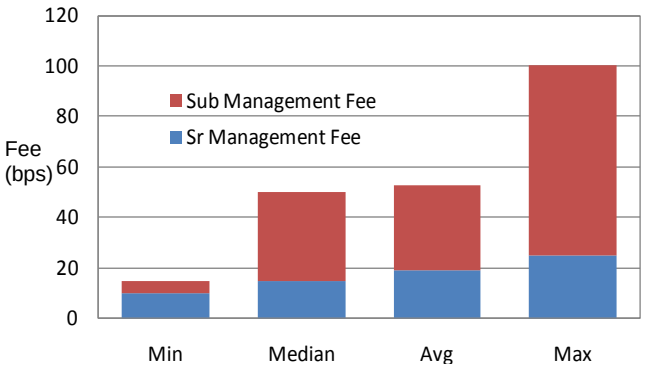
An LSTA member firm examined the indentures of 282 individual CLOs and identified their fee structures. These CLOs range from several quasi-static CLOs, to many large corporate, actively managed CLOs to a several middle market CLOs. The sample of 282 CLOs represents over half of all outstanding CLOs.

Fig. 7 illustrates the minimum, median, average and maximum running fees on the dataset of 282 CLOs. The minimum total fee was 15 bps, which is more characteristic of a quasi-static CLO. The median total running fee was 50 bps, while the average was 53 bps. The maximum running CLO fee in the dataset was 100 bps, which can be characteristic of a middle market or credit opportunity CLO.

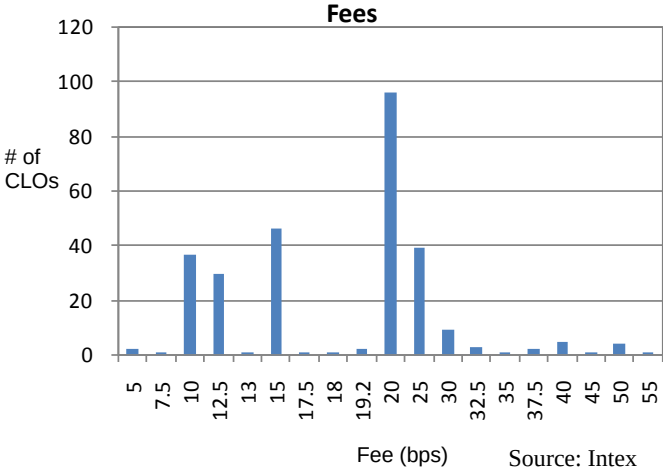
Fig. 7: Range of Sub, Sr CLO Management Fees



Source: Intex

The running fees of managed CLOs generally include a small senior fee that is paid before the interest payments of any of the notes. The senior fee usually pays for the fixed costs of the manager, including items like rent. Fig. 8 illustrates the distribution of the senior fees in the sample of CLOs. As Fig. 8 demonstrates, the modal senior fee is 20 bps.

Fig 8: Distribution of Senior CLO Running Fees



Source: Intex

The typical CLO receives the bulk of its fees through the subordinate fee. The subordinate fee is only paid if the CLO is performing, if the overcollateralization and interest coverage tests are passing, and if all the notes are being paid their interest in full. If the CLO is not meeting the criteria above, the subordinate fee is deferred until all the tests are again met. (The subordinate fee will accrue during this period; however, if the CLO does not come back into compliance, the accrued fees will not, of course, be paid.) Fig. 9 illustrates the distribution of the subordinate fees in the sample of CLOs. As Fig. 9 demonstrates, the modal subordinate fee is 30 bps. Fig. 10 illustrates the distribution of the total running fees for CLOs. As Fig. 10 demonstrates, the modal total running fee is 50 bps.

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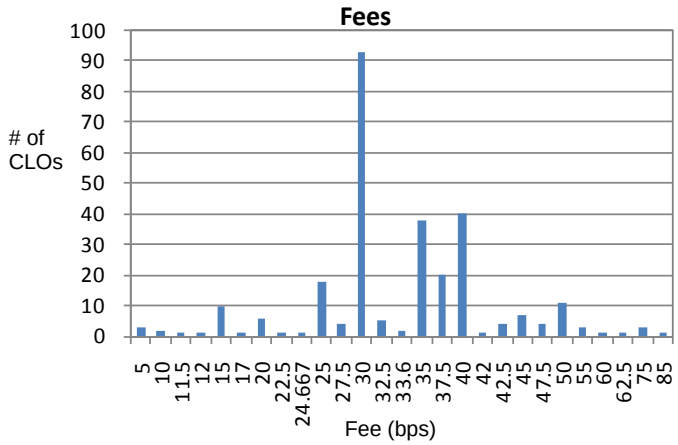
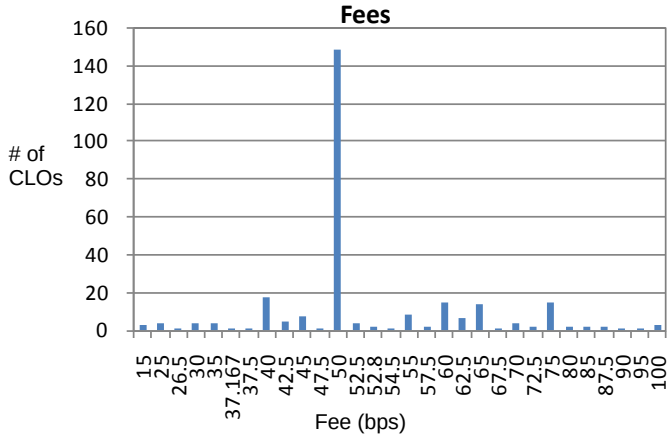
Fig 9: Distribution of Sub CLO Running Fees



Source: Intex

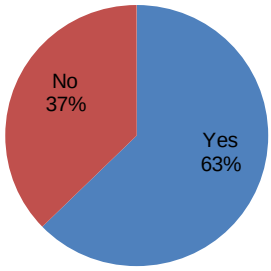
Fig 10: Distribution of Total CLO Running Fees



Source: Intex

Because CLO managers receive the bulk of their compensation in the form of subordinate fees, if the CLO does not perform, the CLO manager will not be paid. This aligns the objectives of the manager and the noteholders. In addition, many managers also may receive an incentive fee if the CLO equity hits a hurdle IRR. This aligns the interests of the manager and the equity. In the dataset of 282 CLOs, 63% had some form of incentive fee.

Fig. 11: Share of CLO set with Incentive Fees



Source: Intex

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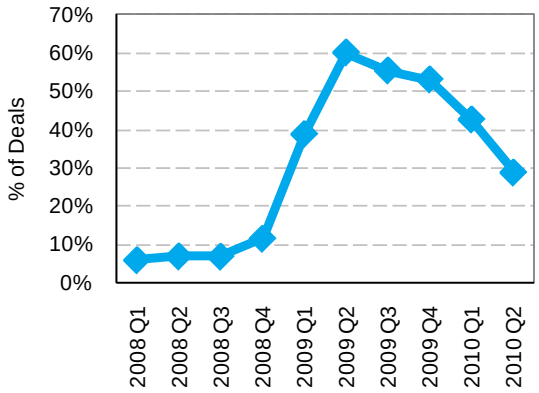
Of the CLOs with incentive fees, roughly one-third receive an additional annual fee payment if the equity earns a certain IRR. The additional annual fee averaged 22 bps in the sample.

The other form of an incentive fee allows the manager to collect a certain percentage of cash flows available to the equity tranche once the hurdle rate is met. In the sample of 282 CLOs, managers would collect an average of 20.6% of the cash flows available to the equity tranche once the IRR hurdle was met. This model accounted for roughly two-thirds of the CLOs with incentive fees. The average IRR hurdle rate is 12.2%.

How did the fee structure work through the Credit Crisis?

The CLO fee structure worked as intended during the credit crisis. As loans were downgraded (and as secondary market bids declined in 4Q08), 60% of CLOs went into OC violation by the middle of 2009. In turn, many CLOs saw their subordinate fee payments deferred. Based on 469 CLOs collected in Intex, 60.1% of these CLOs did not receive their full subordinate fee payment in 2Q09 (Fig. 12).

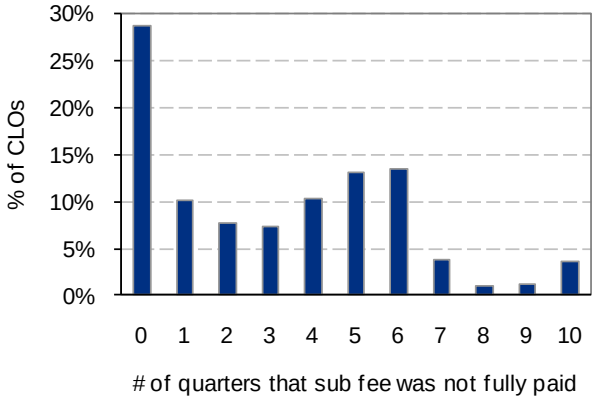
Fig. 12: Share of CLOs whose sub fee was fully/partially stopped



Source: Intex

Fig. 13 shows the period of time that CLO subordinate fees were "turned off." Nearly 30% of CLOs never had their subordinate fees "turned off." However, CLOs whose fees were turned off might not receive their fee again for five to six quarters. Still, as Fig. 12 also illustrates, most CLOs moved back into compliance as both the market improved and managers actively managed their portfolios to bring them back into alignment.

Fig. 13: Number of quarters that CLO sub fees were not fully paid



Source: Intex

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There are many ways to ensure alignment

In its Study, the Federal Reserve recommended that "that rulemakers consider crafting credit risk retention requirements that are tailored to each major class of securitized assets" and that they "consider the potential for other incentive alignment mechanisms to function as either an alternative or a complement to mandated credit risk retention." As this paper has attempted to illustrate, there are a number of ways to align the interests of CLO managers and investors. A small portion of equity can capture the vast majority of the credit risk in a syndicated loan portfolio. Likewise, a fee structure that pays managers *only* if they perform is a considerable stick, and an incentive fee is a non-trivial carrot. Even through the downturn, the fee structure of CLOs aligned the interests of the managers and their investors. This is a model that has worked; the LSTA would respectfully encourage regulators to look at this model as they engage in risk retention rulemaking in the coming months.

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