Morgan Stanley

By electronic submission

February 13, 2012

Re: Comment Letter on the Notice of Proposed Rulemaking
Implementing the Volcker Rule – Proprietary Trading

Ladies and Gentlemen:

Morgan Stanley appreciates the opportunity to comment on the Agencies’ proposed regulations (the “Proposal”), implementing the statutory text of the Volcker Rule. We recognize that the Volcker Rule will change our trading behavior and cause us, as well as other banks, bank holding companies, and bank-affiliated entities (“banking entities”), to narrow the focus of our trading activities so that they are customer-facing and support safety and soundness. Accordingly, we have already shut down or divested all but one of our trading units dedicated solely to Volcker Rule impermissible proprietary trading, and anticipate completing the divestiture of that proprietary trading unit by January 2013.

We acknowledge the challenge the Agencies face in implementing the Volcker Rule, and, in this comment letter, we make a number of concrete recommendations, with specific suggested textual changes, that would allow the Agencies to give full effect to the Congressional intent in enacting the Volcker Rule without creating the serious problems described below.

I. Executive Summary

The Problem

We are deeply concerned that the Proposal, if implemented in its current form, will overly restrain our customer-facing market making businesses and our risk-

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1 The respective rule identifiers are Docket No. R-1432, RIN 7100-AD82 (Board); RIN 3064-AD85 (FDIC); Docket No. OCC-2011-0014, RIN 1557-AD44 (OCC); File Number S7-41-11, RIN 3235-AL07 (SEC); and RIN 3038-AC[] (CFTC).

2 The term “Agencies” refers to the Board of Governors of the Federal Reserve System (the “Federal Reserve”), the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the Securities and Exchange Commission, and the Commodity Futures Trading Commission (the “CFTC”).


4 For purposes of this letter, the term “Volcker Rule” refers to the statutory text of Section 13 of the Bank Holding Company Act, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the “Dodd-Frank Act”).
mitigating hedging activities to the detriment of our customers and the safety and soundness of our institution and the financial markets. Moreover, we believe that the Proposal, if implemented as is, would have severe negative consequences for the markets and the U.S. financial sector.

The list of undesirable consequences is long and troublesome. We share the view, already noted by others, that the Proposal would reduce market liquidity, increase market volatility, impede capital formation, harm U.S. individual investors, pension funds, endowments, asset managers, corporations, governments, and other market participants, impinge on the safety and soundness of the U.S. banking system, and constrain U.S. economic growth and job creation.

The U.S. capital markets, both primary and secondary, and across a diverse range of asset classes, are widely recognized as the deepest, most liquid, and most efficient markets in the world. It is incontrovertible that liquidity in financial markets supports efficient capital allocation, economic development and the creation of jobs. The depth of U.S. market liquidity across all asset classes is a direct result of the market making activities of U.S. banking entities like Morgan Stanley that will become subject to the Volcker Rule.

In this regard, we should emphasize that the capital markets of today are deeper, broader and more central to the economic well-being of U.S. individual investors, pension funds, endowments, asset managers, corporations, governments, and other market participants than they were even 20 years ago. While bank lending remains an important part of finance for larger, more sophisticated global corporate organizations, the capital markets are essential for their well-being. Over this same 20-year period, the U.S. capital markets have provided essential financing, including, importantly, IPOs, to virtually all of the most dynamic companies that have driven our economy. Banking entities, like Morgan Stanley, that are covered by the Volcker Rule have been essential to this capital markets-driven finance.

Congress recognized the importance of market making-related activities of banking entities to the U.S. economy by expressly carving them out of the statutory ban on proprietary trading. Major elements of the Proposal, however, narrow the legislative mandate by focusing on agency trading and market making in certain highly liquid, exchange-traded markets rather than addressing the more common situation of principal market making in markets with less liquidity. If the Proposal were adopted in its current form, banking entities would not be able to engage robustly in many market making-related activities, and U.S. market liquidity would diminish, particularly during times of market stress. Reduced liquidity will result in price uncertainty, market volatility, higher transaction costs, and a reduced ability for corporations and other market participants to raise capital and hedge their risks. On a macroeconomic level, reduced liquidity will constrain economic development, job creation, and the international competitiveness of U.S. businesses, as well as diminish the value of investment and retirement portfolios of Americans.
It has been suggested by some that if the Proposal constrains market making for banking entities, nonbanking entities will fill the void. We disagree. Only banking entities, not other market participants, can provide the full scope of market making-related activities consistently and reliably in both normal and stressed market environments. Although nonbanking entities may provide shallow liquidity at their own discretion and under normal market conditions, they will not do so with the same consistency and reliability as banking entities, such as Morgan Stanley. To the extent that lightly regulated or unregulated entities are able to provide some of the liquidity lost by constraints on U.S. banking entities in good times, they may not have the balance sheets, nor the credit ratings, nor the longer-term customer focus to stay in the markets and provide liquidity during the more difficult times when U.S. customers, corporations, and markets most need the support.

Even if entities that are not affiliated with banks were eventually able to step into the shoes of U.S. banking entities, it would take several years to happen; and, in the meantime, the negative impact on U.S. market liquidity, volatility, and capital formation would most likely be serious. Furthermore, because foreign-headquartered banking entities and foreign markets would not be restrained to the same extent by the Volcker Rule, many U.S. companies would be disadvantaged vis-à-vis non-U.S. companies.

Furthermore, the Proposal, while not intended to do so, in practice, would excessively restrain the risk-mitigating hedging activities of U.S. banking entities and potentially damage their safety and soundness, which is contrary to one of the central purposes of the Volcker Rule. As we discuss in greater detail below, to promote the safety and soundness of U.S. banking entities and the stability of the U.S. financial system, the regulations should encourage hedging activities and provide U.S. banking entities with broad ability to hedge their risks.

**Summary of Recommendations**

Set forth below is a summary of our recommendations regarding the Proposal’s treatment of market making, hedging, conformance, compliance, metrics, trading in government obligations, and commodities. All of these recommendations are also summarized in a PowerPoint presentation that is attached hereto as Attachment 1.

**Market Making**

While we make a number of recommendations for the market making criteria, our most critical comments relate to the source of revenues and Appendix B criteria, and our recommendation to add a new customer-facing criterion.

- **Delete the Revenues Criterion.** The revenues requirement should be deleted in its entirety because it does not accurately characterize the types and sources of revenues generated by market making-related activities in most markets and asset classes. Fees and commissions
are typically not charged for the principal transactions that constitute the bulk of market making revenues. Observable, actionable, bid/ask spreads exist in only a small subset of institutional products and markets. Indicative bid/ask spreads may be observable for certain products, but this pricing would typically be specific to small size standard lot trades and would not represent a spread applicable to larger and/or more illiquid trades. End-of-day valuations for assets are calculated, but they are not an effective proxy for real-time bid/ask spreads because of intra-day price movements. Even more importantly, the usefulness of the bid/ask spread concept to capture market making revenues would only apply if market makers were intermediating on a close to real-time basis between balanced customer buying and selling of the same asset or instrument, thereby effectively earning the spread. In fact, there are substantial gaps in time – days, weeks, or months – between demand for many large and/or illiquid assets. As a result, market makers, who must hold inventory related to customer facilitation, will have substantial revenues from market movements of their principal positions.

- **Delete Appendix B.** Appendix B should be deleted from the final rule. Many of the factual descriptions in Appendix B, including its predominant focus on agency trading and principal market making in certain highly liquid, exchange-traded markets, its view of how market making revenues are generated, its view on the impact of market movements on revenues, and its description of interdealer trading, do not accurately reflect how market making occurs in the majority of markets and asset classes. The Agencies should use the conformance period to analyze and develop a body of supervisory guidance that appropriately characterizes the nature of market making-related activities. If the Agencies believe it is essential to adopt a factual description of market making and a “facts and circumstances” analysis as a part of the final regulations, it is critical that Appendix B be substantially revised to more accurately reflect the way market making-related activities are conducted. If any variant of Appendix B is issued this year as part of the final regulations, it should be reformulated as nonbinding supervisory guidance and not one of the required criteria of market making. Because Appendix B, by its very nature, is a list of principles whose application vary depending upon “facts and circumstances,” it does not provide sufficient certainty for a legally binding regulation on market making.

- **Add A New Customer-Facing Criterion.** We recommend that the Agencies adopt a new factor for distinguishing permitted market making-related activities from prohibited proprietary trading. The characteristic that most clearly and effectively differentiates market making-related activities from prohibited proprietary trading is that
the activities are part of a customer-facing business that is designed to meet customer demands on a consistent and reliable basis throughout market cycles.  Focusing on whether a trading unit is a customer-facing business would provide a workable guide to the Agencies in determining whether the activities of the trading unit are permissible. The language for this factor would be as follows: “The market making-related activities are part of a customer-facing business, as determined in accordance with non-exclusive factors such as sales coverage, provision of execution services, creation and dissemination of research and other trading content to customers, and a focus on building customer relationships over time.”

- **Revise the Regular or Continuous Quoting Requirement To Accommodate Market Making In Less Liquid Markets and Asset Classes.** The regular or continuous quoting requirement should be revised so that it reads, “The trading unit that conducts the purchase or sale holds itself out as being willing to buy and sell, including through entering into long and short positions in, the covered financial position for its own account on a regular or continuous basis, or, in markets where regular or continuous quotes are not typically provided, the trading unit stands ready to provide quotes upon request.” This language change would accommodate the common situation in less liquid markets where quoting is neither continuous nor regular.

- **Apply the Near-Term Demands Requirement As Appropriate To Differing Markets and Asset Classes.** The requirement for “near-term customer demand” should explicitly acknowledge that “near-term” cannot be categorically defined and will differ across markets and asset classes. To do so, the Agencies should add the phrase “based on the characteristics of the relevant market and asset class.”

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5 Significant head count, technology, infrastructure, and expertise are required to provide customer service in market making-related activities. For example, at Morgan Stanley at the end of 2011, Sales & Trading employees engaged in customer-facing activities (e.g., sales and research) that support market making outnumbered Sales & Trading employees engaged in market making and related activities (e.g., trading) by a ratio of approximately 2:1 (68% to 32%). This ratio remains constant even when only Sales & Trading officers (Managing Directors, Executive Directors and Vice Presidents) are considered (64% to 36%).

6 Our U.S. trading systems recognize approximately 7,000 national market system equity securities and we make active and continuous markets in approximately 4,600 of them. We stand ready to provide quotes for a significant percentage of the remaining 2,400 names, subject to market conditions, risk limits, and the availability of pricing information. Our U.S. trading systems recognize approximately 8,000 U.S. corporate bond issuers, and we make active and continuous markets in approximately 1,000 of them. In addition, we stand ready to provide quotes for a significant percentage of the remaining 7,000, subject to market conditions, risk limits, and the availability of pricing information.
to the end of the criterion. The preamble should also be revised to track more closely the statute’s grant of authority for banking entities to acquire positions where they reasonably expect near-term customer demand, rather than solely in response to “clear, demonstrable trading interests” of customers. This language should be replaced with the standard that the purchase or sale is “reasonably consistent with observable customer demand patterns and, in the case of new asset classes or markets, with reasonably expected future developments on the basis of the trading unit’s client relationships.”

- **Revise or Delete the Dealer Registration Requirement.** The Agencies should revise the registration requirement to accommodate market making-related activities abroad by inserting the phrase “to the extent it is legally required to be subject to such regulation.” Alternatively, it should be deleted as it is unnecessary. For purposes of implementing the Volcker Rule, the Agencies should assume, as they do in other areas of law, that banking entities have the appropriate licenses needed to conduct their market making-related activities. As a practical matter, we are concerned that the requirement that a market maker must be registered or subject to substantive regulation could preclude or call into question the permissibility of some market making activities abroad, particularly in countries that do not have regimes for substantively regulating dealing activities.

- **Revise the Compensation Criterion.** The compensation requirement should be revised to make clear that it only restricts compensation arrangements that incentivize employees to engage in prohibited proprietary risk taking so as to clarify that it does not restrict compensation for permitted proprietary trading activities, like market making. This recommendation is equally applicable to the hedging section.

**Market Making: An Alternative Framework**

Alternatively, the Agencies could simplify the market making approach in the Proposal, while fully implementing the Volcker Rule, by substituting the market making criteria in the Proposal with an alternative framework, which would focus on whether the trading unit’s purchases and sales are designed to conduct or support customer-facing activities to meet reasonably expected near-term customer demands. We believe this alternative framework would effectively distinguish between market making-related activities and prohibited proprietary trading, while also preserving the liquidity of financial markets.

Under this alternative framework, there would be both structural and transactional metrics, as well as oversight, to protect against prohibited proprietary trading. Furthermore, the activities would be monitored by compliance and risk
management personnel and examined by the regulators. Structural metrics, as agreed upon with regulators during the conformance period, could include, as appropriate, the ratio of salespeople to traders and the level of resources devoted to client research and trading content. Transactional metrics would be guided by the limitation that the activities be designed not to exceed reasonably expected near-term client demand, and, as agreed upon with regulators during the conformance period, would include metrics of the type that the Agencies are currently contemplating and that are calculable and useful, depending upon the market and asset class.

Suggested text for this alternative framework is set forth in the box below.

§ 4(b)(2) Permitted market making-related activities.

(2) For purposes of paragraph (b)(1) of this section, a purchase or sale of a covered financial position shall be deemed to be made in connection with a covered banking entity’s market making-related activities if:

(i) The covered banking entity has established the internal compliance program required by subpart D that is designed to ensure the covered banking entity’s compliance with the requirements of paragraph (b)(2) of this section, including reasonably designed written policies and procedures, internal controls, and independent testing;

(ii) The trading unit that conducts the purchase or sale is designed to conduct or support, through trading or hedging activities, customer-facing activities;

(iii) The market making-related activities of the trading unit under which the purchase or sale is conducted are, in the aggregate, designed not to exceed the reasonably expected near-term demands of clients, customers, or counterparties, where “near-term” is based on the relevant market and asset class; and

(iv) The activity does not pose a threat to the safety and soundness of the covered banking entity.

(3) The compensation arrangements of persons performing the market making-related activities are designed not to reward prohibited proprietary risk-taking.

(4) For purposes of paragraph (b)(2)(ii) and (iii), “trading unit” means: each organizational unit that is used to structure and control the aggregate risk-taking activities and employees that are engaged in the coordinated implementation of a customer-facing revenue generation strategy and that participate in the execution of any covered trading activity. 

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7 We believe that this definition of trading unit should also replace the proposed definition of trading unit in Appendix A and should apply for all purposes of the Volcker Rule. The Agencies’ proposed definition of trading unit, which starts at the desk level, is too granular and would not present an accurate portrayal of a banking entity’s activities. By contrast, our proposed definition of trading unit would define trading unit at the level that makes sense for their customer businesses and current or future organizational structures. This is important given that the appropriate reportable (…continued)
For purposes of paragraph (b)(2)(ii), whether a trading unit’s activities are “customer-facing” is determined in accordance with non-exclusive factors such as sales coverage, provision of execution services, creation and dissemination of research and other trading content to customers, and a focus on building customer relationships over time.

**Hedging: An Alternative Framework**

Hedging is core to the safety and soundness of banking entities and to the financial system. We do not believe that Congress intended to limit or proscribe this permissible activity. We believe the regulations should strongly encourage prudent hedging activities by providing U.S. banking entities with the ability to determine how best to hedge their risks. Therefore, we recommend that the proposed implementation of the hedging permitted activity be reformulated to focus on overall risk management rather than consist of a list of specific criteria, which could be interpreted and applied as requiring the matching of principal positions with specific hedges. We suggest that the Agencies draft a rule that first looks to banking entities’ internal risk management systems, trading unit- and product-specific risk limits, and policies and procedures commensurate with the Agencies’ supervisory guidance for hedging strategies, which would be reviewed, approved, and overseen by internal compliance and risk management personnel and trading supervisors.

Under this alternative framework, there would also be both structural and transactional metrics, as well as oversight, to protect against prohibited proprietary trading. Furthermore, the activities would be monitored by risk management and compliance personnel and examined by the regulators. The effectiveness of the hedging activities on risk reduction will be observable and measurable at the portfolio level and reviewed by independent, internal risk personnel.

Suggested text for this alternative framework is set forth in the box below.

**§ 5(b) Permitted risk-mitigating hedging activities.**

(b) **Requirements.** For purposes of paragraph (a) of this section, a purchase or sale of a covered financial position shall be deemed to be in connection with and related to individual or aggregated positions, contracts, or other holdings of a covered banking entity and designed to reduce the specific risks to the covered banking entity in connection with and related to such positions, contracts, or other holdings if:

1. The covered banking entity has established reasonably designed written policies and procedures, risk management limits, and internal controls related to

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level of a banking entity is likely to depend on the structure of the individual banking entity, the activity subject to reporting, and the asset classes and market involved.
hedging that are reviewed by internal compliance and risk management personnel and trading supervisors;

(2) The purchase or sale:

(i) Is made in accordance with the written policies, procedures and internal controls established by the covered banking entity pursuant to subpart D;

(ii) Is designed to hedge or otherwise mitigate one or more specific risks, including market risk, counterparty or other credit risk, currency or foreign exchange risk, interest rate risk, basis risk, or other risks, that are expected to arise in connection with and related to individual or aggregated positions, contracts, or other holdings of a covered banking entity;

(iii) Is consistent with the established risk limits of the covered banking entity;

(iv) Does not pose a threat to the safety and soundness of the covered banking entity; and

(v) Is subject to continuing review, monitoring and management by the covered banking entity that is consistent with the written hedging policies and procedures required under paragraph (b)(1) of this section.

(3) The compensation arrangements of persons performing the risk-mitigating hedging activities are designed not to reward prohibited proprietary risk-taking.

Conformance and Compliance Period Timing

We believe that because of the scale, complexity, global reach, and potentially market-disrupting effects of the Volcker Rule, staged implementation is essential. We recommend the following:

• Implementation Timing Should Conform to the Statutory Framework. Although the statute provides for a full two-year conformance period, the Agencies propose to require conformance “as soon as practicable” after the effective date and that compliance programs and metrics be in place on the effective date. We disagree with this approach and believe that, consistent with the statute, the compliance program, metrics requirements, and conformance of trading activities should be implemented over the course of the conformance period. Like all other banking entities, Morgan Stanley is presently building systems, processes, and procedures to meet many new regulatory requirements all over the world. A number of these new requirements are also critically important in order to comply with various changing regulations. We have a well-coordinated global
program to address these requirements – it would be disruptive to this program to assign a special priority to accelerate Volcker Rule compliance programs faster than the statutory mandate. However, it would not be disruptive to retain the requirement that banking entities close or divest their trading units dedicated solely to Volcker Rule impermissible proprietary trading as soon as practicable within the conformance period.

- **Staged Implementation.** There should be staged implementation of the compliance requirements around the permitted activities that begins with the U.S. operations of a global organization like Morgan Stanley and moves later to offshore operations. Implementation of the Proposal in offshore markets will be significantly more complex than in domestic markets given market structure, illiquidity and fragmentation, and the need to evaluate and implement the final rules in coordination with local market regulations. Therefore, we request that the two-year conformance and compliance period apply to U.S. operations, and that the Federal Reserve amend its conformance rule to provide U.S. banking entities with an additional year for international implementation. We believe that the Federal Reserve has the authority to do so through its statutory power to grant up to three one-year extensions.

**Metrics**

- We believe that Appendix A should be revised to clearly state that banking entities will have one year following the issuance of final rules to determine, in coordination with the Agencies, which metrics are calculable and useful for different activities, asset classes, markets, and how frequently they should be calculated, followed by a year for testing and implementation of these metric systems. We do not believe that the same set of metrics is calculable and useful across all asset classes and markets. We agree with the statement in the FSOC Study that “the relevance or utility of any particular metric may vary significantly depending on the asset class, liquidity, trading strategy and market profile of the trading activity in question.”

**Futures and Derivatives on U.S. Government Obligations**

- The exemption for trading in U.S. government obligations should be expanded to include trading in U.S. government bond futures and derivatives. U.S. government bond futures and derivatives are integral to the orderly functioning of the U.S. government bond market. Therefore, we believe it is consistent with Congressional

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8 FSOC Study at 36.
intent to extend the U.S. government obligations exemption to these instruments.

**Commodities**

- **Commodities Generally.** Morgan Stanley has prepared a comment letter, attached hereto as Attachment 2, that discusses specific concerns regarding the Proposal’s effect on the commodities markets and why our proposed recommendations are particularly important to preserving liquidity in those markets.

- **Exclude Commodity Forward Contracts.** The proposed definition of derivative should be revised to exclude commodity forward contracts. The text and legislative history of the Volcker Rule indicate Congressional intent to exclude such physical commodity transactions because they are commercial, not financial, transactions. Important public and economic policy concerns support exempting physical commodity markets.

II. Discussion of Market Making Recommendations

A. The Proposal Should Be Revised to Reflect the Realities of Market Making-Related Activities and Give Full Effect to the Statute

We believe that the Proposal should be revised to better reflect the realities of market making-related activities and thus give full effect to the statute. The core reason customers need and pay for the services of a market maker is so that the market maker, rather than the customer, takes on the time risk \( (i.e., \text{the risk that the order will take time to execute and that during this time, market and other events could have a negative impact on the price of the underlying asset}) \) and the market impact risk \( (i.e., \text{the risk that the size of the trade may have a negative impact on the price of the underlying asset}) \) to which the customer would otherwise be exposed.

One of the inherent tensions in the Volcker Rule is that the line between prohibited proprietary trading and permissible market making is a difficult one to draw, especially in light of the role that intent plays in the determination of whether a particular activity is prohibited. It is easy to draw the line between walled off proprietary trading and market making-related or hedging activities, but beyond that point, the difficulties of differentiating prohibited proprietary trading, as defined in the statutory text, from permitted market making-related activities are widely understood. Both prohibited proprietary trading and market making-related activities, along with market making-related hedging, by their very nature, require that a banking entity take principal risk. The tension is even more complex given that the features of market making vary across markets and asset classes and become even further pronounced during times of market stress. Some of the criteria for market making in the Proposal are more characteristic of agency trading and principal
market making in certain highly liquid, exchange-traded markets, rather than the more common situation of principal market making in less liquid markets.

We respectfully submit that the Proposal has drawn the line in the wrong place and does not give full effect to statutorily permitted activities. In the following sections, we set forth explanations for our recommendations to revise the market making criteria. We do not discuss the requirement that a banking organization have a compliance system because we believe such a requirement is appropriate. Our recommendation regarding the dealer registration requirement is set forth in the executive summary.

B. The Revenues Criterion Should Be Deleted

We appreciate the Agencies’ objective of ensuring market makers derive their revenues primarily from customer-facing activities and not from prohibited proprietary trading. We further appreciate that the Agencies sought to achieve this objective by requiring market makers to derive their revenues primarily from fees, commissions and bid/ask spreads and by establishing a set of well-defined, measurable criteria against which market makers could be evaluated. However, there appears to be a real misconception about how principal market makers generate revenues, and their ability to capture market making spreads, which we believe prevents this criterion, in its current form, from achieving this objective.

- Fees and commissions represent only a de minimis portion of market maker revenues, since market makers act as principal, not agent, when facilitating most customer transactions. Fees and commissions are derived primarily when market makers act as agents, which is outside the scope of the rule.

- Bid/ask spreads are not available in many markets and transactions, and they cannot be credibly estimated by taking the difference between execution price and end-of-day fair value because of intra-day price movements.

- Even more importantly, the usefulness of the bid/ask spread concept to capture market making revenues would only apply if market makers were intermediating on a close to real-time basis between balanced customer buying and selling of the same asset or instrument, thereby effectively earning spread. In fact, there are substantial gaps in time – days, weeks, or months – between demand for many large and/or illiquid positions. As a result, market makers, who must hold inventory related to customer facilitation, will have substantial revenues from market movements of their principal positions.

Based on these concerns, we strongly recommend that the revenue criterion be deleted from the list of market making requirements and instead be incorporated
as one of several metrics that regulators can use for a subset of markets and transactions for which the metric is both relevant and determinable.

**Fees and Commissions Represent only a De Minimis Portion of Market Maker Revenues.** Market makers seldom earn fees or commissions on principal transactions since these items only represent a material revenue stream in those situations where banking entities act as agents (e.g., exchange traded equities), which are outside the scope of the Volcker Rule and the Proposal. In the few circumstances in which market makers do charge fees or commissions in connection with a capital commitment, these revenues typically represent a *de minimis* portion of market making revenues. For example, over the last three years, fees and commissions earned from principal market making activities accounted for less than 5% of Morgan Stanley’s global Sales & Trading revenues.

**Bid/Ask Spreads Are Not Available and Cannot be Credibly Estimated in Many Markets.** Bid/ask spreads represent the prices at which a market maker stands willing to both buy and sell a given quantity of an asset at a given point in time. However, even in the most liquid markets, bid/ask spreads are typically only available for small-sized, standard lot transactions and would not represent a spread applicable to many of our customer transactions. Moreover, bid/ask spreads are not available at all for many other types of transactions. For example, in the liquid equity markets, institutional customers who have large blocks of stock to buy or sell typically do not ask for bid/ask indications. Instead, they rely on a competitive dealer marketplace to generate appropriate pricing for their purchase or sale. In less liquid markets, for example U.S. high yield bonds, in our experience, customers looking to buy or sell request two-sided quotes on only a portion of transactions. As a result, the bid-offer spread information required to capture the effective real-time mark-up or mark-down required to demonstrate that a market maker is meeting the revenue criterion is simply not available for a substantial portion of transactions in most asset classes.

To resolve this issue, it has been proposed that market makers use the difference between a transaction’s execution price and its end-of-day fair value to approximate the bid/ask spread on the transaction. However, this alternative would not be feasible in practice, since intra-day price movements for many instruments can be very significant.

**Bid/Ask Spreads Will Generally Account for Only a Small Portion of Market Maker Revenues Because of Changes in the Value of Dealer Inventory.** A market maker cannot capture a bid/ask spread unless it intermediates customer buy and sells on a close to real-time basis, and earn spread. Where a market maker has to carry a principal facilitation for a period of time, having established the position at or near the bid/ask spread applicable at the time of execution is irrelevant, and the spread between the price at which the position was established and either the end-of-day valuation or the liquidation price is not an effective representation of market maker revenue. In fact, when a market maker has to carry a position created by
customer business, its revenues will be driven by its ability to hedge and risk-manage the position over time.

Market makers are required to hold inventory to support their customer facilitation activities. This inventory results from market markers facilitating customer trades, trading to stay current on market prices, establishing positions where they reasonably expect near-term customer demands, and hedging positions acquired as part of customer transactions.

For some assets and markets, dealers are sometimes able to turn over this inventory relatively quickly. However, for many securities, market makers may be required to hold such inventory for longer periods of time. For example, Morgan Stanley estimates that only about 27,000 of an estimated 50,000 U.S. corporate bond types (varying issuers, maturities, and coupons) trade in any given year, and only about 8,000 (30%) of these bond types trade more than once per month in the institutional market. As a result, market makers that have established positions in these securities from prior customer transactions may be required to hold them for prolonged periods of time until they can be liquidated through a transaction with another customer or customers. The price movements on these positions can be significant during the period between customer trades, and often are a multiple of the bid/ask spread at the time of the original transaction.

Importantly, market makers are not able to neutralize the impact of these changes in asset values through hedging activities because matched hedges are unavailable for most individual positions. For example, single name credit default swaps with sufficient liquidity to enable contemporaneous hedging are available on approximately 2% of U.S. corporate bond issuers. The limited availability of such hedges in even relatively liquid markets, such as that for U.S. corporate bonds, suggests that gains or losses on inventory will invariably outweigh revenues associated with bid/ask spreads in most asset classes over most periods of time.

Because of the factors outlined above, market makers focus on managing the risk and return characteristics of their portfolios in a way that generates the preponderance of customer facilitation revenues from changes in the value of inventory positions and not from fees, commissions and bid/ask spreads. Market makers will be able at times to meet the bid/ask spread criteria where it can be calculated, but only on a random basis. The inability to consistently meet this

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9 For purposes of this analysis, Morgan Stanley defined the institutional market as all customer transactions with a notional value of $100,000 or greater and the retail market as all customer transactions with notional values of less than $100,000. The data required to develop this breakdown came from the 2009 TRACE Enhanced Historical database. This database includes the most comprehensive set of volume and price information available in the U.S. corporate bond market. It was not yet possible to use a more recent version of this dataset for this analysis (i.e., 2010 or 2011), because volume data on U.S. corporate bond transactions is not made public until 18 months after the transaction date.
criteria should not be seen as an indication that a market maker is engaged in prohibited proprietary trading.

C. Appendix B Should Be Deleted

We strongly believe that Appendix B should be removed for two reasons. First, many of the factual descriptions in Appendix B, including its predominant focus on agency trading and principal market making in certain highly liquid, exchange-traded markets, its view of how market making revenues are generated, its view on the impact of market movements on revenues, and its description of interdealer trading, do not accurately reflect how market making occurs in the majority of markets and asset classes. Forcing U.S. banking entities to change their behavior to conform to the concepts of market making in Appendix B would be a significant departure from market practice and, as a result, would severely impact market liquidity and economic growth. Second, because Appendix B, by its very nature, is a list of principles whose application vary depending upon “facts and circumstances,” it does not provide sufficient certainty for a legally binding regulation on market making. The existence of changing “facts and circumstances” will make it difficult for any banking entity to design an effective compliance program or be confident that its market making-related activities have satisfied the proposed Appendix B criterion. We expect that examiners would face a similar difficulty.

We therefore recommend that the best option would be for the Agencies to remove Appendix B both as a criterion and from the regulations. We appreciate the Agencies’ desire to provide guidance on market making-related activities and suggest that, instead, the Agencies use the conformance period to analyze and develop a body of supervisory guidance that appropriately characterizes the nature of market making-related activities.

If the Agencies believe it is essential to adopt a factual description of market making and a “facts and circumstances” analysis as a part of the final regulations, it is critical that Appendix B be substantially revised to more accurately reflect the way market making-related activities are conducted. If any variant of Appendix B is issued this year as part of the final regulations, it should be reformulated as nonbinding supervisory guidance and not one of the required criteria of market making.10 We describe below some of the key changes we believe would be necessary to bring Appendix B more into line with the way that market making is conducted.

Limitation on Revenues from Inventory Appreciation. Appendix B states that profit and loss generated by a market maker due to inventory appreciation or depreciation must be “incidental” to customer revenues. As discussed in the

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10 In this way, the “facts and circumstances” would function similarly to the supervisory guidance regarding what constitutes a “red flag” under the Fair Credit Reporting Act.
previous section, this is inconsistent with market making in less liquid assets and larger transactions where market makers often must retain principal positions for longer periods of time and are unable to perfectly hedge those positions. The statement in Appendix B that revenues from fees, commissions, and bid/ask spreads must predominate is not reflective of the true nature of principal market making-related activities in most markets and reflects a bias towards agency trading and principal market making in certain highly liquid, exchange-traded markets.

**Consistent Profitability and Low Earnings Volatility.** Characterizing market making as an activity that demonstrates consistent profitability and low earnings volatility is inaccurate for several reasons. First, because the level of customer trading activity varies significantly with market conditions, market maker revenues also vary significantly, creating volatility in earnings and profitability. Second, because principal risk is a necessary feature of market making-related activities, market makers will experience volatility associated with changes in the value of positions held in inventory. The core reason customers need and pay for the services of a market maker is so that the market maker, rather than the customer, takes on the time risk (i.e., the risk that the order will take time to execute and that during this time, market and other events could have a negative impact on the price of the underlying asset) and the market impact risk (i.e., the risk that the size of the trade may have a negative impact on the price of the underlying asset) to which the customer would otherwise be exposed. These positions generally cannot be completely hedged or readily sold; if they could be, the customer would not need the market maker’s services. As a result, market makers are exposed to the residual risks of the inventory that they acquire in facilitating customer transactions. Because markets and trading volumes are volatile, consistent profitability and low earnings volatility are simply outside the market maker’s control.

**Interdealer Trading.** Appendix B states that market makers “typically only” enter into trades with non-customers for three reasons: (i) in order to hedge or risk-manage market making risks; (ii) in order to acquire positions11 to meet reasonably expected near-term customer demand; or (iii) in order to sell12 positions acquired from customers.13

All of these statements are true, but there are two important additional reasons not reflected in Appendix B: market makers trade with other dealers in order to (iv) provide liquidity to other dealers and, indirectly, their customers, and (v) conduct price discovery to inform the prices they can offer their customers. This price discovery is critical in enabling dealers to effectively manage risk because it provides critical information on the depth of market supply and demand at different

11 The Agencies should expand this to refer also to “establishing” positions.

12 The Agencies should expand this to refer also to “unwinding” positions.

13 Proposal at 68961.
price levels. This is especially important in less liquid markets, such as the distressed debt, high yield, and commodity markets, where customer trades are less frequent and the pricing and liquidity of the market is not particularly transparent.

If interdealer activities were limited, not only would banking entities be exposed to increased risk, as a result of having fewer hedging options, but they would also be less willing to provide market making services to customers. For example, if Dealer A enters into a customer trade and seeks to hedge it with another dealer, but dealers are limited by the Volcker Rule in their ability to trade with one another, Dealer A may not be able to effectively hedge its customer facilitation position. This is because other dealers would have no direct knowledge of Dealer A’s customer transaction and therefore may not be able to justify entering into a trade with Dealer A as “directly” facilitating customer transactions. Over time, Dealer A would be exposed to more risk (because its ability to hedge has been limited) and would therefore ration its willingness to commit capital to large customer trades.

Interdealer activity is critically important to preserving market liquidity, and we believe that it can properly be limited to activities conducted for the five reasons described above. We recognize, as did the FSOC Study, that interdealer trading presents a challenge to the regulators in distinguishing between interdealer trading that is undertaken for purposes of market making versus prohibited proprietary trading. At the same time, we believe that Appendix B draws the line too narrowly between permitted interdealer trading and prohibited proprietary trading. With the benefit of experience gained through the conformance period, it is likely that the regulators would be able to more appropriately draw this line and provide the industry and examiners with valuable supervisory guidance.

D. The Agencies Should Add A New Customer-Facing Criterion

We believe that the Agencies should adopt an additional market making criterion that would read as follows: “The market making-related activities are part of a customer-facing business, as determined in accordance with non-exclusive factors such as sales coverage, provision of execution services, creation and dissemination of research and other trading content to customers, and a focus on building customer relationships over time.” This new criterion would capture what we believe to be the characteristic that most clearly and effectively differentiates market making-related activities from prohibited proprietary trading – that the activities are part of a customer service business that is designed to meet the needs of customers on a consistent and reliable basis throughout market cycles. Our proposed criterion would greatly assist banking entities and the Agencies in determining whether activities conducted by a trading unit are permissible. This additional criterion could be operationalized by requiring that the trader mandate in Appendix C document the ways in which the trading unit’s business is designed to serve

14 FSOC Study at 24.
customers. As noted earlier, this focus on customer-facing activities could form the basis for a different approach to implementing the market making permitted activity.

Whether the market making-related activities of a trading unit are part of a customer-facing business would be determined by reference to a non-exclusive list of factors set forth in an appendix to the rule or, preferably, in supervisory guidance developed after experience that is gained during the conformance period. These factors could include, among others:

- **Sales coverage.** The extent to which salespeople support the investing and trading efforts of customers.

- **Provision of execution strategy and trading services.** In customer businesses, traders and salespeople are engaged in an ongoing dialogue with customers regarding customers’ trading, financial, and business objectives. Traders and salespeople are also engaged in problem-solving with customers and discuss investment, trading, and execution strategies with customers.

- **Content creation and dissemination.** The trading unit devotes significant resources to creating market, trading, research, and execution content that is disseminated to customers to aid the execution of the customer’s investing activities and performance.

- **Relationship building.** The trading unit focuses on establishing and maintaining long-term relationships with customers.

We do not believe that a trading unit that is engaged in bright line or walled-off prohibited proprietary trading would evidence any of these factors in any meaningful way. Market making activities that are part of a customer-facing business, however, can easily be identified by the significant presence of these factors. Significant head count, technology, infrastructure, and expertise are required to provide customer service in market making-related activities. For example, at Morgan Stanley at the end of 2011, Sales & Trading employees engaged in customer-facing activities (e.g., sales and research) that support market making outnumbered Sales & Trading employees engaged in market making and related activities (e.g., trading) by a ratio of approximately 2:1 (68% to 32%). This ratio remains constant even when only Sales & Trading officers (Managing Directors, Executive Directors and Vice Presidents) are considered (64% to 36%).

**E. The Regular or Continuous Quoting Requirement Should Be Revised To Accommodate Market Making In Less Liquid Markets and Asset Classes**

The requirement that a market maker hold itself out as being willing to buy and sell, or otherwise enter into long and short positions in, covered financial positions on a regular or continuous basis reflects market making only in a narrow
category of highly liquid assets, and would not be appropriate to impose on all market making activities. Although the preamble recognizes that market makers in certain asset classes and markets cannot meet this requirement and may instead trade only by appointment, we think it is important that this recognition be reflected in the rule text itself. Therefore, we recommend that the Agencies add the following language to the end of the regular or continuous criterion: “or, in markets where regular or continuous quotes are not typically provided, the trading unit stands ready to provide quotes upon request.”

Market makers in more fragmented and less liquid markets, and in certain offshore jurisdictions in particular, do not regularly or continuously quote. In these markets, market makers stand ready to provide a quote in response to a customer request. Morgan Stanley’s U.S. trading systems recognize approximately 7,000 national market system equity securities and we make active and continuous markets in approximately 4,600 of them. We stand ready to provide quotes for a significant percentage of the remaining 2,400 names, subject to market conditions, risk limits, and the availability of pricing information. Our U.S. trading systems recognize approximately 8,000 U.S. corporate bond issuers, and we make active and continuous markets in approximately 1,000 of them. In addition, we stand ready to provide quotes for a significant percentage of the remaining 7,000, subject to market conditions, risk limits, and the availability of pricing information.

In addition, subject to market conditions, risk limits, and the availability of pricing information, we stand ready to provide quotes for a significant percentage of the remaining 7,000. As one moves away from U.S. equity and corporate bond markets towards less liquid, more fragmented, offshore, and bespoke OTC derivative markets, the problems presented by the Proposal’s rigid requirement for regular and continuous quoting become even more problematic.

F. The Near-Term Demands Requirement Should Be Applied As Appropriate To Differing Markets and Asset Classes

Under the Proposal, market making-related activities must be designed “not to exceed the reasonably expected near-term demands of clients, customers, and counterparties” to qualify for the market making exemption. We understand the need for this criterion, which comes directly from the statute, but we recommend a clarification in the regulatory text to recognize that “near-term” is not a one-size-fits-all standard and instead must be interpreted in the context of the particular position and market in question. Specifically, the Agencies should add the phrase “based on the characteristics of the relevant market and asset class” to the end of the criterion.

15 Proposal at 68871. (“[T]hese indicia [of market making] cannot be applied at all times and under all circumstances because some may be inapplicable to the specific asset class or market in which the market making activity is conducted. . . . The frequency of such regular quotations will itself vary; less illiquid markets may involve quotations on a daily or more frequent basis, while highly illiquid markets may trade only by appointment.”)
Near-term demands in illiquid markets will differ from near-term demands for certain highly liquid equities. For example, in less liquid markets, such as corporate debt markets, a market maker’s inventory generally turns over less quickly than a market maker’s inventory in equity markets.

The preamble interprets the “near-term demands” requirement in the statute very narrowly, limiting a market maker’s anticipatory buying or selling activity to that which is “related to clear, demonstrable trading interests of clients, customers, or counterparties.”\(^\text{16}\) We are concerned that “clear, demonstrable trading interests” could be misinterpreted as a higher standard of proof than the “reasonably expected near-term demands” standard that is required by the statute. For example, it could be construed to require that each trade be tied to an individual indication of interest. Therefore, we recommend that the Agencies remove the narrow interpretation of “near-term” from the preamble and replace it with the standard that the purchase or sale is “reasonably consistent with observable customer demand patterns and, in the case of new asset classes or markets, with reasonably expected future developments on the basis of the trading unit’s customer relationships.”

Market making is far more complex than passively responding to customer requests and filling orders. As explained in a recent study by Stanford University Professor Darrel Duffie,

> In order to provide significant immediacy to its customers, a market maker requires substantial discretion and incentives regarding the pricing, sizing, and timing of trades. It must also have wide latitude and incentives for initiating trades, rather than merely reacting to customer requests for quotes, in order to properly risk manage its positions or to prepare for anticipated customer demand or supply.\(^\text{17}\)

The divergence of the Proposal from the broad grant of authority in the statute poses practical concerns as well, because it does not reflect the manner in which market makers acquire positions and build inventory. Market makers should be permitted to exercise reasonable discretion in taking positions in the absence of “clear, demonstrable trading interests,” constantly trading and turning over inventory to position their books to be able to satisfy the reasonably expected near-term demands of their customers. One reason for this is that new products will often initially not have clear, demonstrable evidence of customer demand. Banking entities commit capital for new products in advance of clear, demonstrable demand because of their expectations about the demands of their customers with whom they have strong relationships that are reinforced through frequent sales force contact.

\(^\text{16}\) Proposal at 68871.

The narrowness of the Agencies’ proposed evidentiary standard would discourage market makers from conducting legitimate market making activities permitted by the statute, and so we suggest the language changes referenced above.

**G. The Compensation Requirement Should Apply Only To Prohibited Proprietary Trading**

The proposed rule requires that the compensation arrangements of persons performing market making-related activities must be designed not to encourage or reward proprietary risk-taking. The problem with this criterion is that it is drafted too broadly, referring to all proprietary risk-taking, rather than being limited to prohibited proprietary trading. Because market making-related activities necessarily involve proprietary risk-taking, the criterion as drafted would prohibit compensation arrangements that reward permissible market making-related activities. Therefore, the Agencies should specify that compensation cannot be designed to reward “prohibited” proprietary risk taking.

**III. The Hedging Criteria Should Be Modified To Reflect the Manner in Which Banking Entities Manage Risk**

Hedging is core to the safety and soundness of banking entities and to the stability of the U.S. financial system. We do not believe that Congress intended to limit or proscribe this permissible activity. We believe the regulations should strongly encourage hedging activities by providing U.S. banking entities with broad flexibility to determine how best to hedge their risks.

As discussed in the Executive Summary, we suggest that the Agencies completely reformulate the hedging criteria to reflect the manner in which banking entities manage risk. Our alternative framework focuses on overall risk management rather than compliance with hard-coded criteria that could be interpreted to apply on a trade-by-trade level. First, our alternative tracks the statutory requirement that hedging activities be “designed to reduce” specific risks to the banking entity. Second, our modified hedging criteria would rely on banking entities’ internal risk management systems, trading unit- and product-specific risk limits, and policies and procedures commensurate with the Agencies’ supervisory guidance for hedging strategies, which would be reviewed, approved, and overseen by internal compliance and risk management personnel and trading supervisors. These modified criteria would implement the statute, would ensure, through risk limits, policies and procedures, and oversight, that the hedging permitted activity is not prohibited proprietary trading, and would provide banking entities with the flexibility they need to hedge efficiently and effectively.

By contrast, we believe that the Agencies’ approach to defining permitted hedging activity would unnecessarily limit the ability of banking entities to hedge...
their transactions in a safe and sound manner, which would be contrary to the purpose of the Volcker Rule. There are three key reasons why we believe that an alternative approach to hedging is necessary: (i) the proposed criteria focus on individual, as well as aggregate, position-level analysis and could interfere with portfolio hedging; (ii) the proposed criteria assume that a trader runs a book with perfect hedges; and (iii) the proposed criteria could limit anticipatory hedging. We describe these reasons below in further detail.

First, because the proposed criteria focus on an individual, as well as aggregate, position-level analysis, they could be read to interfere with portfolio hedging. We are concerned that the proposed requirements that each hedging position reasonably correlate to the underlying risks being hedged and that banking entities continually monitor for such correlation, on their face, could apply at the individual trade level. Any attempt to closely match hedging positions to underlying positions, throughout the life of the position, fails to recognize that in effective portfolio management, hedging positions cannot be tied back to individual positions as opposed to portfolio risks. This is because the risk characteristics of positions and the book overall are dynamic, and thus the role of any given position in a banking entity’s book will change over time.

Second, the requirement that a hedging position not give rise, at its inception, to significant new exposures that are not themselves hedged in a contemporaneous transaction assumes that a trader runs a book with perfect hedges for each position. While the preamble recognizes that hedges may give rise to basis and counterparty risks, the rule text itself does not incorporate this understanding. In many instances, however, it is not possible to obtain a matched hedge for individual positions. Particularly in illiquid markets, a position generally cannot be perfectly hedged but instead must be hedged with instruments that have different maturities, or with different asset classes altogether, thus exposing the banking entity to new risks, but reducing overall risk on a portfolio basis.

Third, the Proposal focuses on an objective test for hedging by requiring that a hedging position not give rise to significant new exposures that are not themselves hedged in a contemporaneous transaction assumes that a trader runs a book with perfect hedges for each position. While the preamble recognizes that hedges may give rise to basis and counterparty risks, the rule text itself does not incorporate this understanding. In many instances, however, it is not possible to obtain a matched hedge for individual positions. Particularly in illiquid markets, a position generally cannot be perfectly hedged but instead must be hedged with instruments that have different maturities, or with different asset classes altogether, thus exposing the banking entity to new risks, but reducing overall risk on a portfolio basis.

Third, the Proposal focuses on an objective test for hedging by requiring that a hedging position, in fact, hedges or mitigates specific risks to the banking entity. Our proposal is consistent with the statute and focuses on whether a position is designed to mitigate a specific risk. This is important because it is often not possible to predict with complete accuracy the effectiveness of a hedge. If further revises this criterion by permitting a banking entity to hedge a specific risk that is expected to arise. Although the preamble states that the proposed hedging criteria would not preclude anticipatory hedging, this is not reflected in the rule text. We are therefore

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19 For example, Morgan Stanley estimates that approximately 5,700 companies currently have bonds outstanding. For 88% of these companies, credit default swaps are not available to hedge the exposures in any form, and approximately 2% of these companies have single name credit default swaps with sufficient liquidity to be cleared through centralized clearing counterparty. This data was obtained from FINRA TRACE, Thompson Reuters Datastream, and DTCC.
concerned that the proposed hedging criteria would limit the ability of banking entities to engage in anticipatory hedging.

IV. There Should Be Staged Implementation

The Proposal contemplates that compliance programs and metrics reporting systems will be in place by the effective date of July 21, 2012 and that banking entities will conform their activities “as soon as practicable” after the effective date. Given the uncertainty about the architecture and scope of the final regulations, this is an impossible schedule. It would be imprudent for covered banking entities to incur significant costs redesigning compliance systems, trader mandates and metrics reporting capabilities, and evaluating the proposed rules in the context of foreign laws and regulations before the final rules are complete. Furthermore, these deadlines contradict Congressional intent and are not required by the statute and the Federal Reserve’s final conformance rule for the Volcker Rule, which both provide banking entities with a full two-year conformance period. Like all other banking entities, Morgan Stanley is presently building systems, processes, and procedures to meet many new regulatory requirements all over the world. A number of these new requirements are also critically important to comply with various changing regulations. We have a well-coordinated global program to address these requirements – it would be disruptive to this program to assign a special priority to accelerate Volcker Rule compliance programs faster than the statutory mandate. However, it would not be disruptive to retain the requirement that banking entities close or divest their trading units dedicated solely to Volcker Rule impermissible proprietary trading as soon as practicable within the conformance period. For all other activities, we believe that banking entities should have the full two-year conformance period to bring their trading activities into compliance with the requirements of the Volcker Rule.

Furthermore, we believe that the two-year conformance period should be focused on U.S. operations, and the Federal Reserve should, in advance of the effective date of the Volcker Rule, amend its conformance rule to provide U.S. banking entities with an additional year for implementation abroad. Implementation of the Volcker Rule in offshore markets will be significantly more complex given market structure, illiquidity and fragmentation, and the need to evaluate and implement the final rules in coordination with local market regulations. To illustrate the complexity involved, Morgan Stanley has traders in 23 different countries, actively trades in at least 35 different foreign currencies, serves as a primary dealer in at least a dozen foreign sovereign debt markets, and trades on more than 100 different non-U.S. exchanges and trading venues in the course of its market making and hedging related activities. We believe that the Federal Reserve has the authority to provide for this staged implementation of the Volcker Rule pursuant to its statutory power under the Volcker Rule to grant up to three one-year extensions.

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The Volcker Rule and the final regulations adopted thereunder will undoubtedly result in significant changes to our compliance systems and trading activities by the end of the conformance period. Morgan Stanley will work expeditiously to implement the Volcker Rule across all of its market making business lines.

V. The Metrics Should Be Refined and Implemented Over the Course of the Conformance Period

The Agencies’ proposed regulations would require that all metrics reporting systems be in place on July 21, 2012. We disagree with this approach. We strongly believe that additional time should be provided to both refine the metrics requirements and to test adequately the reporting systems. We believe that Appendix A should be revised to clearly state that banking entities will have one year following the issuance of final rules to determine, in coordination with the Agencies, which metrics are calculable and useful for different activities, asset classes and markets, and how frequently they should be calculated, followed by a year for testing and implementation of these metric systems.

We agree with the Agencies’ statement that “quantitative measurements can only be usefully identified and employed after a process of substantial public comment, practical experience, and revision” and that “[a]dditional study and analysis will be required before quantitative measurements may be effectively designed and employed.” 21 We do not believe that each of the proposed metrics is useful and appropriate to apply uniformly across banking entities, activities, asset classes, and markets. Instead, “the relevance or utility of any particular metric may vary significantly depending on the asset class, liquidity, trading strategy and market profile of the trading activity in question.” 22

Appendix A of the Proposed Regulation specifies over 20 quantitative metrics that a covered banking entity must calculate generally for each trading day for all trading units. Morgan Stanley currently calculates some, but not all of these metrics. Some of them are meaningful for many trading units. However, not all of the metrics are meaningful and calculable for all trading units, and some are unnecessarily burdensome without adding value to compliance information. For example, the Proposal would apply the Inventory Aging metric to all activities, even though it would be irrelevant if applied to derivatives positions. This fact was acknowledged in the FSOC Study, which notes that “[f]or highly liquid financial instruments, inventory turnover and aging are relatively straightforward to measure as banking entities will have both significant daily volume and measurable inventories of each discrete asset. Such financial instruments include most cash

21 Proposal at 68,883.
22 FSOC Study at 36.
equities, high volume foreign exchange rate pairs, commercial paper, and other financial instruments for which risk can be offloaded quickly.”23

An example of a metric that is not calculable by any methodology we know for all trading units is the Pay to Receive spread ratio. As discussed earlier in this letter, customer spread can only be calculated for a subset of very liquid asset classes and only for a subset of their trades. An example of a metric that is unnecessarily burdensome and does not, as proposed, always add relevant compliance information is the Inventory Risk Turnover Metric. As over-expansively contemplated in the Proposal, it would require each trading unit to compute multiple risk factor sensitivities every day for each of its millions of daily transactions.

In light of these considerations, we believe that banking entities and regulators should use the first year of the conformance period to consult with one another, and the Agencies, and determine the usefulness and relevance of individual metrics for different activities, asset classes, and markets. The second year of the conformance period should be used to test the metrics systems to validate the accuracy and relevance of the metrics that are agreed upon at the end of the first year.

VI. The Government Obligations Permitted Activity Should Be Expanded to Include Futures and Derivatives on U.S. Government Obligations

The government obligations permitted activity addresses certain government obligations, but does not extend to U.S. government bond futures and derivatives. We believe that the Agencies should expand the permitted activity to include futures and derivatives on the enumerated government obligations because these markets are inextricably intertwined. Banking entities trade derivatives and futures on government obligations as part of their activities in the underlying obligation. Therefore, trading in U.S. government bond futures and derivatives are integral to the orderly functioning of the U.S. government bond market. Limiting the permitted activity to trading in the underlying obligation would fail to fully implement Congress’s intent to protect the liquidity of the government securities market.

VII. Revisions Should Be Made To Avoid Harm To the Commodities Markets

Under the Proposal, the definition of “derivative” would include commodity forward contracts, thus subjecting these instruments to the general prohibition on proprietary trading. We urge the Agencies to reconsider the inclusion of forwards in the definition of derivatives, for three reasons. First, the statutory text of the Volcker Rule does not cover these contracts, and legislative history demonstrates that Congress intended to exclude both spot commodities and forward commodity contracts from the Volcker Rule. Second, treating forwards as derivatives is wholly inconsistent with existing law, including the Commodity Exchange Act, Title VII of the Dodd-Frank Act, and long-standing CFTC positions. Third, subjecting forwards

23 Id. at 40.
to the Volcker Rule would jeopardize commodity transactions that are critical to liquidity in fragmented, illiquid commodity markets essential to U.S. commodity producers and end users. Please refer to our commodities letter, provided as Attachment 2 hereto, for a further discussion of this and other commodity-related issues.

VIII. U.S. Competitive Disadvantage Should Be Limited

The statute exempts the activities of foreign-headquartered banking entities from the Volcker Rule as long as they are solely offshore. Contrary to Congressional expectations, no other country has chosen to impose the Volcker Rule or a similar regime on its banking entities. Therefore, the Volcker Rule, if implemented as proposed, will place U.S. investors, pension funds, endowments, asset managers, corporations, governments, and other market participants that depend on the U.S. markets and U.S. banking entities, at an unforeseen but substantial competitive disadvantage vis-à-vis foreign counterparts. While we recognize this unequal treatment of U.S. and foreign-headquartered banking entities is an unintended consequence of the “solely outside the United States” provision of the statute, we believe that the Agencies have the discretion to limit this competitive disadvantage by adopting regulations that define the market making-related and other permitted activities with sufficient breadth so as not to unduly encumber the ability of any banking entities, whether U.S. or foreign-headquartered, to engage in market making-related and other permitted activities.

An overly restrictive implementation of the Volcker Rule that results in damage to the liquidity of U.S. markets would harm U.S.-based companies that depend on the U.S. markets for liquidity, risk management and capital formation. Under the Proposal, a foreign-headquartered bank could provide market making-related and underwriting services to a foreign company or foreign subsidiary of a U.S. company on an offshore basis which, in many instances, will mean that the foreign company will have greater, and cheaper, options to raise capital, gain liquidity, and effectively hedge its risks. Restrictions on market making in the United States would disproportionately affect small and medium-sized, growing U.S. companies. Furthermore, a U.S. asset manager or U.S. corporation without a foreign subsidiary would be forced either to deal in the more illiquid and costly U.S. markets subject to the Volcker Rule, or bear the cost of creating a foreign subsidiary, and move jobs and revenues offshore, in order to participate in the cheaper and more liquid foreign markets driven by non-U.S. banking entities that are less restricted by the Volcker Rule as a result of the “solely outside the United States” permitted activity. Morgan Stanley believes the Agencies should consider the potential impact that drawing the lines around the permitted activities too narrowly could have on the competitiveness of U.S. companies and the U.S. economy.

24 There is no equivalence between the Volcker Rule and the United Kingdom’s ring-fencing proposals – the “Vickers Proposals” – which would permit all proprietary trading to continue to take place in a broker-dealer that is part of a banking organization.
IX. Additional Suggested Modifications

In this letter we have treated in-depth only a few of the many ways in which we believe the Proposal should be revised to reflect Congressional intent and in order to prevent dislocations in the markets. We also support the principles in a number of trade association letters in which we have participated. In particular, we support: the Securities Industry Financial Markets Association’s letters regarding proprietary trading generally, asset-backed issuers, municipal securities, and covered funds; the International Swaps and Derivatives Association, Inc.’s letter regarding derivatives; the American Securitization Forum’s letter regarding securitization; and the Loan Syndications and Trading Association’s letter regarding loans.

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The potential consequences of the Proposal for U.S. banking entities and the economy at large are great. Congress rightly recognized the need to preserve key market and risk management functions performed by banking entities, such as market making and hedging activities. We have suggested a number of modifications to the Proposal that we believe are fully consistent with the Volcker Rule and that would preserve the ability of banking entities to engage in the statutorily permitted activities that are critical to the U.S. economy and to safety and soundness. We urge the Agencies to modify the Proposal accordingly.

Respectfully submitted,

[Signatures]

Colm Kelleher
Co-President, Institutional Securities Group

Jim Rosenthal
Chief Operating Officer
Volcker Rule

Discussion Materials

February 13, 2012
Market making, hedging, and underwriting for customers and risk management purposes involve proprietary trading. Congress recognized this fact by explicitly exempting these types of proprietary trading from the Volcker Rule’s general prohibition, and the proposed rules of October 2011 clearly seek to reflect this.

However, unless amended, the proposed rules would overly constrain market making, hedging and underwriting activities. This document addresses market making and hedging activities.

We suggest amendments to the proposed rules that would allow banking entities to continue to serve customers and fulfill risk management needs. We also suggest a revised approach to the market making and hedging sections that would fulfill the statute’s objectives in a more effective manner.

Unless banking entities are allowed to continue to engage in market making and hedging activities, investors and companies will be injured, as will the economy as a whole. Substituting lightly regulated or non-regulated financial firms for banking entities in fulfilling these important roles would disrupt market making in the near-term and undermine safety and soundness in the long-term.

Our comment letter sets forth our thoughts on the proposed rule and expands upon the recommendations set out in this document.
## Key Recommendations

| 1 | Delete criterion requiring revenues be derived primarily from fees, commissions, bid/ask spreads or other income not attributable to asset appreciation or hedging | Observable, actionable bid/ask spreads exist in only a limited subset of institutional products and markets. Customer buying and selling is not matched in real time. Inventory value changes are fundamental to customer revenues |
| 2 | Delete, or modify and convert to supervisory guidance, the Appendix B requirements for market making | Appendix B is not accurate and should be deleted, or modified and positioned as supervisory guidance |
| 3 | Add a new criterion that requires a trading unit’s activities to be customer-facing | Focusing on whether a trading unit is a customer-facing business would provide a workable guide to the Agencies in determining permissible activities |
| 4 | Add to requirement that trading desks quote on a continuous basis the phrase “or, in markets where regular or continuous quotes are not typically provided, the trading unit stands ready to provide quotes upon request” | Criterion is not applicable in less liquid markets where volumes are insufficient for dealers to provide quotes on a regular or continuous basis |
| 5 | Add “based on the characteristics of the relevant market and asset class” to requirement that trading be designed not to exceed expected near-term customer demand | Near-term demand and turnover of market maker inventory significantly vary between markets and asset classes |
| 6 | Add “prohibited” to clarify type of proprietary risk taking for which individuals should not be compensated | Banking entities should be permitted to consider compensation for prudent risk taking in the course of market making and hedging activities permitted by statute |
| 7 | Grant banking entities the full two-year statutory period to conform activities and implement compliance in the U.S.; add one additional year for implementation abroad | It would be disruptive to existing regulatory implementation initiatives to assign a special priority to accelerate Volcker Rule compliance programs faster than the statutory mandate. International implementation will be significantly more complex |
| 8 | Revise Appendix A to allow banks to determine during the conformance period, in coordination with the Agencies, which metrics are calculable and useful for different asset classes | The relevance and utility of any particular metric varies significantly across asset classes and markets. These determinations can be made in the first year of the conformance period |
| 9 | Exclude commodity forwards from definition of covered instruments. Exempt trading in U.S. government bond futures and derivatives | Exclusion of forwards is consistent with statute and legislative history, and policy objective of not disrupting commodity markets. U.S. government bond futures and derivatives are integral to the U.S. government securities market |

### Executive Summary (cont.)

- **Customer-Facing Alternative:** An alternative approach to the market making exemption would be a rule that permits proprietary trading designed to be customer-facing, consistent with near-term customer demand, and that has the requisite substantial customer base, customer sales force, and supporting infrastructure.

- **Hedging Alternative:** An alternative approach to the hedging exemption would be a rule that permits activities that are designed to reduce overall risk on a portfolio basis without constraining current risk reduction capabilities.
Four Aspects of Market Making and Hedging Require Modification to the Proposed Rule

1. Proprietary trading (in which a dealer buys or sells from a customer into or out of its inventory) is critical to market making in most markets.

2. Daily market movements exceed the bid-ask spread for most asset types.

3. Matched hedges are not available at any reasonable or regular price for a large portion of the market.

4. Trades between market makers are a critical component of market making and essential for banking entities to safely manage risk.
Principal Risk Taking is Critical to Market Making

Customer demand for many securities does not occur simultaneously; most bond classes trade less than 1x per month. As a result, dealers must commit their capital and take proprietary risk to facilitate customer trading activity.

Trading Frequency of U.S. Corporate Bonds

Total = 27,489 different bond classes (varying issuers, coupons, maturities) (2)

43% of U.S. corporate bond classes that traded in 2009 did not even have one trade in the institutional market (3)

Impact on Individual Companies

• 43% of U.S. corporate bond classes (11,807 securities of various issuers, coupons, and maturities) that traded in 2009 did not even have one trade in the institutional market (3)

• 47% of the 15,682 U.S. corporate bond classes that did trade in the institutional market traded on 10 or fewer trading days – or less than 1x a month (7,424 securities)
  – The majority of these thinly traded bond classes (57%) were issued by smaller companies outside the Fortune 500

• Trading activity for large firms can also be infrequent:

<table>
<thead>
<tr>
<th>Total Bond Classes Traded by Institutions</th>
<th>% of Bond Classes Traded by Institutions less than 1x a Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE</td>
<td>1,015 82%</td>
</tr>
<tr>
<td>Caterpillar</td>
<td>868 95%</td>
</tr>
<tr>
<td>Ford</td>
<td>431 86%</td>
</tr>
<tr>
<td>Boeing</td>
<td>112 80%</td>
</tr>
</tbody>
</table>

Notes

1. Source: FINRA TRACE
2. Total universe of 27,489 bond classes based on all TRACE-eligible securities that are dollar-denominated U.S. corporate bonds, including securities sold pursuant to the Securities Act Rule 144A, traded between January and December 2009 as captured in FINRA TRACE Enhanced Historical Data
3. Trades for 11,807 bond classes were only recorded for volumes <$100k and were assumed to be retail trades
Matched Hedges Unavailable for Many Assets

Matched hedges are not available on a large portion of the market, making it impossible to completely hedge risk exposures in a contemporaneous transaction.

### Matched Hedges for U.S. Corporate Bonds (1)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Companies</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All companies with bonds outstanding</td>
<td>5,739</td>
<td>100%</td>
</tr>
<tr>
<td>Companies without any Credit Default Swaps available to hedge exposure</td>
<td>5,058</td>
<td>88%</td>
</tr>
<tr>
<td>Companies with Credit Default Swaps that are index only or not traded actively enough to hedge exposure (2)</td>
<td>549</td>
<td>10%</td>
</tr>
<tr>
<td>Companies with Credit Default Swaps traded actively enough to hedge exposure (2)</td>
<td>132</td>
<td>2%</td>
</tr>
</tbody>
</table>

### Matched Hedges for U.S. Equities (1)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Companies</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>All companies with publicly traded equity securities</td>
<td>6,516</td>
<td>100%</td>
</tr>
<tr>
<td>Companies without actively exchange-traded options available for hedging</td>
<td>2,913</td>
<td>45%</td>
</tr>
<tr>
<td>Companies with options that trade in volumes too low for effective hedging (3)</td>
<td>3,432</td>
<td>52%</td>
</tr>
<tr>
<td>Companies with options that trade in sufficient volumes to enable effective hedging</td>
<td>171</td>
<td>3%</td>
</tr>
</tbody>
</table>

### Notes

1. Source: FINRA TRACE, Bloomberg, Morgan Stanley analysis
2. Using clearing as a proxy for liquidity, there are currently 132 U.S. corporate single names that are deemed sufficiently liquid to be cleared by centralized clearing counterparties
3. Defined as companies with put option markets that lack daily volumes necessary to hedge median transaction size of Morgan Stanley’s cash equities desk; assumes trading firm would not be more than 30% of the daily volume of the options contract
# Recommendations Related to Market Making (cont.)

## Summary of Requirements for Permitted Market Making

<table>
<thead>
<tr>
<th>Activity is designed to generate revenues primarily from fees, commissions, bids/ask spreads or other income not attributable to asset appreciation or hedging.</th>
<th><strong>Recommended Language</strong></th>
<th><strong>Explanation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revise Section _4(b)(2)(v) as follows: &quot;The market making-related activities of the trading desk or other organizational unit that conducts the purchase or sale are designed to generate revenues primarily from fees, commissions, bid/ask spreads or other income not attributable to: (A) Appreciation in the value of covered financial positions it holds in trading accounts; or (B) The hedging of covered financial positions it holds in trading accounts.&quot;</td>
<td>Fees and commissions are typically not charged for the principal transactions that constitute the bulk of market making revenues. Observable, actionable bid/ask spreads exist in only a small subset of institutional products and markets. Indicative bid/ask spreads may be observable for certain products, but this pricing would typically be specific to small size standard lot trades and would not represent a spread applicable to larger and/or more illiquid trades. End-of-day valuations are not an effective proxy for real time bid/ask spreads because of intra-day price movements. More importantly, the usefulness of the bid/ask spread concept to capture market making revenues would only apply if market makers were intermediating on a close to real-time basis between balanced customer buying and selling of the same asset or instrument, thereby effectively earning the spread. In fact, there are substantial gaps in time – hours, days, weeks, or months – between demand for many large and/or illiquid assets. As a result, market makers, who must hold inventory related to customer facilitation, will have substantial revenues from market movements of their principal positions.</td>
<td></td>
</tr>
</tbody>
</table>
## Recommendations Related to Market Making (cont.)

### Summary of Requirements for Permitted Market Making

<table>
<thead>
<tr>
<th></th>
<th>Recommended Language</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Appendix B should be deleted as a required criteria from the final rule. The Agencies should use the conformance period to analyze and develop a body of supervisory guidance that appropriately characterizes the nature of market making-related activities.</td>
<td>Many of the factual descriptions in Appendix B, including its predominant focus on agency trading and principal market making in certain highly liquid, exchange-traded markets, its view of how market making revenues are generated, its view on the impact of market movements on revenues, and its description of interdealer trading, do not accurately reflect how market making occurs in the majority of markets and asset classes. Agencies should use the conformance period to analyze and develop a body of supervisory guidance that appropriately characterizes the nature of market making-related activities.</td>
</tr>
</tbody>
</table>

- **Red Strikethrough Text** = Proposed Language Would Be Deleted
- **Blue Underlined Text** = New Language Suggested By Morgan Stanley

### Add a new criterion that requires a trading unit’s activities to be designed to meet the needs of customers.

|   | Replace Section .4(b)(2)(v) with: “The market making-related activities are part of a customer-facing business, as determined in accordance with non-exclusive factors such as sales coverage, provision of execution services, creation and dissemination of research and other trading content to customers, and a focus on building customer relationships over time.” |

- The characteristic that most clearly and effectively differentiates market making-related activities from prohibited proprietary trading is that the activities are part of a customer-facing business that is designed to meet customer demands on a consistent and reliable basis throughout market cycles.

### Trading desk holds itself out as being willing to buy and sell on a regular or continuous basis.

|   | Section .4(b)(2)(ii) would read as follows: “The trading unit desk or other organizational unit that conducts the purchase or sale holds itself out as being willing to buy and sell, including through entering into long and short positions in, the covered financial position for its own account on a regular or continuous basis, or, in markets where regular or continuous quotes are not typically provided, the trading unit stands ready to provide quotes upon request.” |

- Although the preamble recognizes that market makers in certain asset classes and markets cannot meet this requirement and may instead trade only by appointment, the rule text does not incorporate this understanding. The proposed criterion is not applicable in less liquid markets where volumes are insufficient for dealers to provide quotes on a regular or continuous basis.
### Recommendations Related to Market Making (cont.)

<table>
<thead>
<tr>
<th>Summary of Requirements for Permitted Market Making</th>
<th>Recommended Language</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Activities should be designed not to exceed the reasonably expected near-term demands of clients, customers, or counterparties.</td>
<td>Section_.4(b)(2)(iii) would read as follows: “The market making-related activities of the trading unit or other organizational unit that conducts the purchase or sale are, with respect to the covered financial position, designed not to exceed the reasonably expected near-term demands of clients, customers, or counterparties, based on the characteristics of the relevant market and asset class.” Also, the “clear, demonstrable trading interest” standard in the preamble for anticipatory trading is replaced with the standard “reasonably consistent with observable customer demand patterns and, in the case of new asset classes or markets, with reasonably expected future developments on the basis of the trading unit’s client relationships.”</td>
<td>The phrase “near-term demands” should be interpreted in the context of the particular security, instrument, position, market, and asset class in question. Near-term demand in illiquid and less liquid markets will differ from near-term demand for certain highly liquid equities. Replacing the “clear, demonstrable trading interest” language would more closely track the statute’s grant of authority for banking entities to acquire positions where they reasonably expect near-term customer demand.</td>
</tr>
<tr>
<td>6. Compensation arrangements of market making personnel are not designed to reward proprietary risk-taking.</td>
<td>Section_.4(b)(2)(vii) would read as follows: “The compensation arrangements of persons performing the market making-related activities are designed not to reward prohibited proprietary risk-taking.”</td>
<td>The compensation requirement should be revised to make clear that it only restricts compensation arrangements that incentivize employees to engage in prohibited proprietary risk taking so as to clarify that it does not restrict compensation for permitted proprietary trading activities, like market making. This recommendation is equally applicable to the hedging section.</td>
</tr>
</tbody>
</table>
### Alternative Recommendation Related to Market Making

#### Potential Alternative Approach

- The Agencies could simplify the market making approach in the Proposal, while fully implementing the Volcker Rule, by substituting the market making criteria in the Proposal with an alternative framework:
  - The trading unit’s purchases and sales are designed to conduct or support customer-facing activities to meet reasonably expected near-term customer demands
  - Customer-facing is determined in accordance with non-exclusive factors such as sales coverage, provision of execution services, creation and dissemination of research and other trading content to customers, and a focus on building customer relationships over time
- We believe this alternative framework would effectively distinguish between market making-related activities and prohibited proprietary trading, while also preserving the liquidity of financial markets

#### Approach to Compliance

- Under this alternative framework, there would be both structural and transactional metrics, as well as oversight, to protect against prohibited proprietary trading
  - Structural metrics, as agreed upon with regulators during the conformance period, could include, as appropriate, the ratio of salespeople to traders and the level of resources devoted to client research and trading content
  - Transactional metrics would be guided by the limitation that the activities be designed not to exceed reasonably expected near-term client demand, and, as agreed upon with regulators during the conformance period, would include metrics of the type that the Agencies are currently contemplating and that are calculable and useful, depending upon the market and asset class
- Furthermore, the activities would be monitored by compliance and risk management personnel and examined by the regulators
Alternative Recommendation Related to Market Making (cont.)

Suggested text for this alternative framework is set forth in the box below

§_4(b)(2) Permitted market making-related activities.

(2) For purposes of paragraph (b)(1) of this section, a purchase or sale of a covered financial position shall be deemed to be made in connection with a covered banking entity’s market making-related activities if:

   (i) The covered banking entity has established the internal compliance program required by subpart D that is designed to ensure the covered banking entity’s compliance with the requirements of paragraph (b)(2) of this section, including reasonably designed written policies and procedures, internal controls, and independent testing;

   (ii) The trading unit that conducts the purchase or sale is designed to conduct or support, through trading or hedging activities, customer-facing activities;

   (iii) The market making-related activities of the trading unit under which the purchase or sale is conducted are, in the aggregate, designed not to exceed the reasonably expected near-term demands of clients, customers, or counterparties, where near-term is based on the relevant market and asset class; and

   (iv) The activity does not pose a threat to the safety and soundness of the covered banking entity.

(3) The compensation arrangements of persons performing the market making-related activities are designed not to reward prohibited proprietary risk-taking.

(4) For purposes of paragraph (b)(2)(ii) and (iii), “trading unit” means: each organizational unit that is used to structure and control the aggregate risk-taking activities and employees that are engaged in the coordinated implementation of a customer-facing revenue generation strategy and that participate in the execution of any covered trading activity.  

(5) For purposes of paragraph (b)(2)(ii), whether a trading unit’s activities are “customer-facing” is determined in accordance with non-exclusive factors such as sales coverage, provision of execution services, creation and dissemination of research and other trading content to customers, and a focus on building customer relationships over time.

Note
1. We believe that this definition of trading unit should also replace the proposed definition of trading unit in Appendix A and should apply for all purposes of the Volcker Rule. The Agencies’ proposed definition of trading unit, which starts at the desk level, is too granular and would not present an accurate portrayal of a banking entity’s activities.
## Recommendations Related to Hedging

<table>
<thead>
<tr>
<th>Issue with Current Hedging Proposal</th>
<th>Potential Alternative Approach</th>
<th>Approach to Compliance</th>
</tr>
</thead>
</table>
| • Hedging is core to the safety and soundness of banking entities and the financial system.  
• We believe Congress did not intend to limit or proscribe this permissible activity  
• We also believe regulations should not limit hedging activities by providing banking entities with the ability to determine how best to hedge their risks  
• The Proposal in its current form focuses on a list of specific criteria which could be interpreted and applied as requiring the matching of individual positions with specific hedges  
• However, this is inconsistent with the way market markers manage risk which is hedged on a portfolio basis | • The proposed hedging permitted activity should be reformulated to focus on overall risk management rather than consist of a list of specific criteria  
• We suggest that the Agencies draft a rule that first looks to banking entities’ internal risk management systems, trading unit- and product-specific risk limits, and policies and procedures  
  − This should be done in way that is commensurate with the Agencies’ supervisory guidance for hedging strategies  
  − Would also be reviewed, approved, and overseen by internal compliance and risk management personnel and trading supervisors | • Under this alternative framework, there would be both structural and transactional metrics, as well as oversight, to protect against prohibited proprietary trading  
• Furthermore, the activities would be monitored by risk management and compliance personnel and examined by the regulators  
• The effectiveness of hedging activities on risk reduction will be observable and measurable at the portfolio level and reviewed by independent, internal risk personnel |
§ 12.5(b) Permitted risk-mitigating hedging activities.

(b) Requirements. For purposes of paragraph (a) of this section, a purchase or sale of a covered financial position shall be deemed to be in connection with and related to individual or aggregated positions, contracts, or other holdings of a covered banking entity and designed to reduce the specific risks to the covered banking entity in connection with and related to such positions, contracts, or other holdings if:

(1) The covered banking entity has established reasonably designed written policies and procedures, risk management limits, and internal controls related to hedging that are reviewed by internal compliance and risk management personnel and trading supervisors;

(2) The purchase or sale:
   (i) Is made in accordance with the written policies, procedures and internal controls established by the covered banking entity pursuant to subpart D;
   (ii) Is designed to hedge or otherwise mitigate one or more specific risks, including market risk, counterparty or other credit risk, currency or foreign exchange risk, interest rate risk, basis risk, or other risks, that are expected to arise in connection with and related to individual or aggregated positions, contracts, or other holdings of a covered banking entity;
   (iii) Is consistent with the established risk limits of the covered banking entity;
   (iv) Does not pose a threat to the safety and soundness of the covered banking entity; and
   (v) Is subject to continuing review, monitoring and management by the covered banking entity that is consistent with the written hedging policies and procedures required under paragraph (b)(1) of this section.

(3) The compensation arrangements of persons performing the risk-mitigating hedging activities are designed not to reward prohibited proprietary risk-taking.
## Recommendations Related to Conformance Period and Compliance Program

<table>
<thead>
<tr>
<th>Summary of Requirement</th>
<th>Recommendation</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation timing for conformance and compliance in U.S. and international markets.</td>
<td>Delete “as soon as practicable” from the preamble. The July 21, 2012 deadline for compliance and metrics implementation should be deleted. It should be made clear that banking entities have the full two-year statutory conformance period to implement compliance programs, metric requirements and conformance of trading activities.</td>
<td>Like all other banking entities, Morgan Stanley is presently building systems, processes, and procedures to meet many new regulatory requirements all over the world. A number of these new requirements are also critically important in order to comply with various changing regulations. We have a well-coordinated global program to address these requirements – it would be disruptive to this program to assign a special priority to accelerate Volcker Rule compliance programs faster than the statutory mandate. The Federal Reserve should exercise its statutory authority to grant one additional year, beyond the two-year conformance period, for banking entities to implement compliance programs and conform their proprietary trading activities abroad. Implementation of the Proposal in offshore markets will be significantly more complex than in domestic markets given market structure, illiquidity and fragmentation, and the need to evaluate and implement the final rules in coordination with local market regulations.</td>
</tr>
<tr>
<td>Determination of metric requirements.</td>
<td>Appendix A should be revised to clearly state that banking entities will have one year following the issuance of final rules to determine, in coordination with the Agencies, which metrics are calculable and useful for different activities, asset classes, markets, and how frequently they should be calculated, followed by a year for testing and implementation of these metrics systems.</td>
<td>We do not believe that the same set of metrics is calculable and useful across all asset classes and markets. We agree with the statement in the FSOC study that, as the FSOC Study notes, “the relevance or utility of any particular metric may vary significantly depending on the asset class, liquidity, trading strategy and market profile of the trading activity in question.”[1]</td>
</tr>
</tbody>
</table>

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Note 1. FSOC Study at 36
## Additional Recommendations

- **Red Strikethrough Text** = Proposed Language Would Be Deleted
- **Blue Underlined Text** = New Language Suggested By Morgan Stanley

<table>
<thead>
<tr>
<th>Summary of Issue</th>
<th>Recommendation</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Government bond futures and derivatives not included in U.S. Government obligations permitted activity.</td>
<td><strong>Section 6(a)(1) should read as follows:</strong> “The prohibition on proprietary trading contained in **Section 3(a) does not apply to the purchase or sale by a covered banking entity of a covered financial position that is…(vi) A derivative or future that primarily references any obligation contained in <strong>Section 6(a)(1)(i)-(v).”</strong></td>
<td>The Proposal does not include U.S. government bond futures and derivatives within the scope of the U.S. government obligations trading exemption. U.S. government bond futures and derivatives are integral to the orderly functioning of the U.S. government bond market. It is consistent with Congressional intent to extend the U.S. government obligations exemption to these instruments.</td>
</tr>
</tbody>
</table>

The definition of derivative in the proposed rules includes, among other things: “Any purchase or sale of a nonfinancial commodity for deferred shipment or delivery that is intended to be physically settled.” | **Revise Section 2 (I)(i) as follows,** “Any purchase or sale of a nonfinancial commodity for deferred shipment or delivery that is intended to be physically settled.” | The text and legislative history of the Volcker Rule indicate Congressional intent to exclude such physical commodity transactions because they are commercial, not financial transactions. Important public and economic policy concerns support exempting physical commodity markets |

Dealer registration requirement. | **Section 4(b)(2)(iv) would read:** “The covered banking entity is…a dealer that is registered…or engaged in the business of a…dealer…outside of the United States and subject to substantive regulation of such business in the jurisdiction where the business is located, **to the extent it is legally required to be subject to such regulation.”** Alternatively, the requirement should be deleted as unnecessary. | Some international jurisdictions do not have regulatory regimes for substantively regulating dealing activities (e.g., for derivatives). Therefore, the proposed requirement could unintentionally preclude or call into question the permissibility of some market making activities abroad. |
Impact on U.S. Economy and U.S. Capital Markets

Ensuring that the market making exemption works effectively is important to companies and governments who issue securities in order to fund and expand their businesses, to institutional investors who manage the savings of U.S. citizens, and to U.S. economic growth and employment.

“The Agencies' proposed implementation of the Volcker Rule would reduce the quality and capacity of market making services that banks provide to U.S. investors. Investors and issuers of securities would find it more costly to borrow, raise capital, invest, hedge risks, and obtain liquidity for their existing positions.”

“If the proposal is adopted…covered banking entities will be forced to severely curtail their traditional market making activities for all but the most liquid of securities.”

“The short time frame provided…to implement the Act almost insures a dramatic reduction in liquidity…as there does not now exist enough capacity among non-bank market makers to provide the necessary liquidity to the markets abandoned by the covered banking entities.”

“We are deeply concerned about certain potentially far reaching and unintended consequences of the Proposed Rules, including reduced liquidity in the markets, higher trading costs and reduced valuation of fixed income securities.”

“We are especially concerned about the effect of these consequences on tens of millions of individual investors, and institutional clients such as pension funds, 401(k) plans, foundations and endowments.”

- Signatories include: AIG, APG, BlackRock, CalPERS, Dodge & Cox, GE Asset Mgmt, Legal & General, Income Research and Mgmt, Loomis Sayles, McDonnell Investment Mgmt, MetLife, Nationwide Mutual, Vanguard

“These added costs and risks will be borne by the ultimate beneficiaries of our nation’s capital markets, primarily individual savers and American corporations seeking to compete in increasingly global markets for goods and services.”
Morgan Stanley

February 13, 2012

Re: Comment Letter on the Notice of Proposed Rulemaking Implementing the Volcker Rule – Commodities

Ladies and Gentlemen:

Morgan Stanley appreciates the opportunity to comment on the Agencies’ proposed rules implementing the Volcker Rule (the “Proposal”) and their potential impact on commodity markets. We welcome the Agencies’ recognition that the Volcker Rule must be implemented in a manner that preserves U.S. banking entities’ ability to deliver customer-oriented financial services effectively and without undue constraint. We have strong concerns, however, that the Proposal, if implemented in its current form, would impair the ability of U.S. banking entities to meet the needs of their customers for commodity-related hedging, financing, and other intermediation services, and would reduce the liquidity and efficiency of commodity markets overall. This result is not compelled by the Volcker Rule, nor was it intended by Congress in enacting it.

This letter highlights key concerns about the Proposal’s potential impact on commodity market making and related services provided by U.S. banking entities to producers and users of commodities. The recommendations to modify the Proposal contained in this letter are also set out in our comment letter addressing the Proposal overall. In this letter, we focus on the potential effects of the Proposal in the context of

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1 The respective rule identifiers are Docket No. R-1432, RIN 7100-AD82 (Board); RIN 3064-AD85 (FDIC); Docket No. OCC-2011-0014, RIN 1557-AD44 (OCC); File Number S7-41-11, RIN 3235-AL07 (SEC); and RIN 3038-AC[ ] (CFTC).

2 The term “Agencies” refers to the Board of Governors of the Federal Reserve, the Office of the Comptroller of the Currency, the Federal Deposit Insurance Corporation, the Securities and Exchange Commission, and the Commodity Futures Trading Commission.

3 For purposes of this letter, the term “Volcker Rule” refers to Section 13 of the Bank Holding Company Act, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the “Dodd-Frank Act”).


5 We do not address every issue raised by the Proposal in this letter. Instead, we highlight several issues of key importance for commodity markets and the commodity customer services of U.S. banking entities such as Morgan Stanley.

6 Morgan Stanley, Comment Letter to the Agencies (Feb. 13, 2012). In addition, as noted in our overall comment letter, we support the recommendations regarding the Proposal contained in the SIFMA
commodity markets and commodity customer services provided by U.S. banking entities.

We note that, in light of our concerns about the Proposal’s potential negative impact on commodity markets, Morgan Stanley requested IHS Inc. to prepare an economic analysis of the possible effects of the Proposal on energy markets and the U.S. energy industry. IHS Inc. filed with the Agencies an independent report co-authored by Daniel Yergin. IHS’s analysis suggests that the current Proposal, unless modified to preserve market liquidity, could have significant harmful effects for the liquidity of energy markets and U.S. energy commodity producers, commodity consumers, and retail customers. IHS’s findings suggest the potential for up to $7.5 billion of lost investment in natural gas development, $5.3 billion in increased electricity costs, $2 billion in increased gasoline costs, and a loss of over 200,000 jobs.

Executive Summary

We believe that the Proposal, as written, would negatively impact market making and hedging activities of banking entities in commodity markets and their ability to serve their customers. In Section I of this letter, we explain why commodity producers, end users, and other commodity-related businesses rely on market makers, particularly U.S. banking entities such as Morgan Stanley, to assist them in managing commodity risks. We highlight the types of integrated credit and risk intermediation services provided by banking entities, which either cannot be provided, or cannot be provided efficiently, by other market participants. We describe the key characteristics of commodity markets – illiquidity, geographical and product segmentation, and dependence on customized transactions – that necessitate these market making services. Section I concludes with a discussion of commodity-specific concerns raised by the Proposal, particularly its overly restrictive approach to permitted market making-related and hedging activities.

In Section II, we illustrate the potential harmful consequences of the Proposal through three examples of how Morgan Stanley’s commodity businesses helped customers manage their risks and achieve their goals of profitably growing their businesses. These examples describe how Morgan Stanley:

- provided hedges to a renewable energy project developer, enabling it to construct and operate a 210 megawatt wind farm in Montana;

- managed a domestic airline’s monthly jet fuel requirements, thereby reducing its operating costs, working capital requirements, and balance sheet usage associated with its jet fuel inventory; and

Proprietary Trading letter, the SIFMA Funds letter, the SIFMA Municipal Securities letter, the SIFMA Securitization letter, the ISDA letter, the LSTA letter, and the ASF letter regarding securitization.
- assisted a leading natural gas producer enabling it to hedge its future production and invest in further natural gas development.

For each of these examples, we identify the activities needed to provide the customer services that may be unnecessarily restricted by the Proposal.

Section III sets out our specific recommendations for changes to the Proposal, with a view to preserving the types of critical customer services described in the three examples. For convenience, a summary of these recommendations, and the supporting rationale, is set out below:

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Summary Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclude forwards from the scope of the Volcker Rule</td>
<td>Congress intended to exclude both spot and forward commodity contracts from the Volcker Rule.</td>
</tr>
<tr>
<td></td>
<td>Treating forwards as derivatives is inconsistent with existing law, under which forwards are unregulated because they are commercial, not financial transactions.</td>
</tr>
<tr>
<td></td>
<td>Subjecting forwards to the Volcker Rule would jeopardize commodity transactions that are critical to liquidity in fragmented, illiquid commodity markets essential to U.S. commodity producers and end users.</td>
</tr>
<tr>
<td>Make specific changes to the market making criteria to ensure banking entities can continue to support commodity customer needs</td>
<td>In most commodity markets, a market maker does not regularly provide quotations or hold itself out as willing to buy or sell on a regular or continuous basis.</td>
</tr>
<tr>
<td></td>
<td>A banking entity could not prudently hold itself out as willing to enter into either side of a transaction at all – much less on a regular or continuous basis – in many commodity markets.</td>
</tr>
<tr>
<td>Apply the near term demands requirement appropriately in the context of commodity markets.</td>
<td>Market makers in commodity markets stand ready to meet customer demand, which may be infrequent and highly customized.</td>
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<td>This criterion should be interpreted in the context of the relevant commodity market, instrument, and transaction.</td>
</tr>
<tr>
<td>Delete the revenues criterion.</td>
<td>The criterion does not accord with market making realities in most commodity markets.</td>
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<tr>
<td></td>
<td>Market makers in commodity markets necessarily take principal positions and do not predominately generate revenues from bid/ask spreads, fees, or commissions.</td>
</tr>
<tr>
<td>Add a new customer-facing criterion.</td>
<td>This new criterion would capture what we believe to be the characteristic that most clearly and effectively...</td>
</tr>
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7 This letter specifically addresses Questions 54, 56, 87, 88, 91, 92, 93, 94, 98, 177, and 183 of the Proposal. In Section III, we note the specific questions to which each of our recommendations and the associated discussion is responsive.
differentiates market making-related activities in commodity markets from prohibited proprietary trading.

Reformulate the Proposal’s approach to hedging

6 Reformulate the Proposal’s approach to hedging to provide needed flexibility to a banking entity in determining how to best hedge its risks.

- The rules should focus on overall risk management rather than a list of specific criteria, which could be interpreted and applied as requiring the matching of principal positions with specific hedges.
- The Proposal’s approach to hedging would impair the ability of banking entities to hedge risks assumed as a result of market making related activities, contrary to the purposes of the Volcker Rule.

I. The Proposal Should be Revised to Avoid Impairing Marking Making Activity to Meet the Needs of Commodity Producers and End Users

We believe that the Proposal fails to adequately accommodate the core market making and hedging activities of market makers, including banking entities, in commodity markets. Commodity producers, end users, and other commodity businesses rely on market makers as intermediaries to help them address complex and often long-term commodity risks. Banking entities play a key role in these markets – one that other types of market participants are unlikely to fill. This section describes the needs of commodity businesses for risk intermediation and other market making services provided by U.S. banking entities, and the significant issues arising from the Proposal’s approach to permitted market making, market making-related, and hedging activities.

A. Specialized Financing and Risk Management Solutions Are Essential for the Operations of U.S. Commodity Producers, End Users, and Other Commodity Businesses

Firms that produce, distribute and consume commodities are subject to significant commodity-related risks, which must be managed to enable their profitable operation over time. Many of these firms have high fixed costs in cyclical industries and are vulnerable to fluctuations in the price and availability of commodities. The U.S. airline and automotive industries represent two such sectors. Energy costs comprise approximately 27% of total costs for U.S. airlines.8 Approximately 20% of total costs for car manufacturers are attributable to the plastics, metals, and composites they use to build cars.9 Relatively small price fluctuations can dramatically raise operating costs for these companies. Delta Air Lines, for example, has estimated that a

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8 Airlines For America, Quarterly cost index: U.S. passenger airlines, 3Q 2010.
$1 increase in the per barrel price of oil results in a $100 million increase in annualized costs.\textsuperscript{10}

Without certainty about the costs of inputs (such as jet fuel for airlines) and outputs (such as power from generation projects), these firms are hesitant – and often unable – to make new investments to develop commodity resources or to use them to manufacture consumer goods. Firms that are unable to mitigate these risks face a higher cost of capital, since investors demand a greater return for the increased risks they bear. In short, firms that cannot mitigate these risks do not make the kind of investments required to drive growth in the U.S. economy.

Some of these commodity-related risks may be addressed by using standardized products available in the relatively liquid futures markets. But even these markets tend to be illiquid other than in contracts relating to upcoming months and in key “hub” contracts.\textsuperscript{11} Commodity businesses are rarely able to eliminate their long-term, company-specific risks through transactions in these markets. Instead they must seek tailored solutions involving complex combinations of commodity forwards, futures, options, and derivatives to meet their needs.

\textbf{B. U.S. Banking Entities Are Uniquely Positioned to Provide These Services}

In the United States, banking entities play a key role in commodity markets. They provide integrated services – financing, credit, hedging, risk management, risk intermediation, advisory, capital markets, among others – that either cannot be provided, or cannot be provided efficiently, by other market participants. Commodity businesses depend on the provision of these integrated financing and risk management services.

The role of U.S. banking entities in providing critical commodity services to customers is shaped by the commodity markets themselves. Commodity markets tend to have low levels of liquidity, especially for transactions extending beyond short-term time horizons. Although commodity markets include exchange-traded futures contracts, they also encompass large over-the-counter markets, which commodity producers and consumers rely on for lower liquidity commodities, longer-term contracts, and customized transactions. Commodity markets are also highly fragmented by product grade or other specifications and seasonal, cyclical, and location factors, such as origin and delivery destination. For example, the United States has


\textsuperscript{11} For example, Figure 1 in Appendix A to this letter shows that the majority of trading volume for key wheat, gold, natural gas, and oil contracts occurs in the nearest six months, while futures with delivery dates more than one year out have drastically lower liquidity levels.
approximately 30 delivery hubs for natural gas contracts, which represent only a small fraction of the more than 11,000 natural gas delivery points in the United States.12

Commodity markets provide little opportunity for agency transactions, and customers depend upon the participation of large liquidity providers that are able to manage principal risk. Agency-type transactions, including riskless principal transactions, are unworkable in most commodity markets, either because there is no immediate buyer or seller for a particular commodity or transaction or because, in the absence of significant liquidity, immediately selling (or buying) a large position in the market would negatively affect the market price and undermine or defeat the objectives of the trade. Customers rely on market makers, acting as principals, to assume time, location, commodity grade, and other price risks, to find the contra-side of a transaction, and to manage the risks of market impact of a transaction.

U.S. banking entities have the size and expertise to intermediate the full range of transactions and services commodity customers require. Banking entities also have the ability to provide credit capacity, which allows companies to free up capital which can be used for other investment purposes. Perhaps most importantly, banking entities’ credit quality, in combination with these other attributes, makes banking entities the preferred – and sometimes the only permitted – counterparty for many operating companies.

If banking entities were restricted in their ability to provide these services to commodity businesses, these businesses would be forced to turn to other types of liquidity providers: a limited number of commodity trading houses, energy merchant companies, oil companies with trading desks, or other types of traders. These firms do not seek to provide the types of customer-driven, integrated services long provided by U.S. banking entities. Rather, their businesses are focused on deploying assets for investment or proprietary trading purposes, not market making. Moreover, they will be restricted in their ability to offer swap products to other market participants to the extent that they are not registered as swap dealers under the Dodd-Frank Act’s derivatives regulation provisions. These firms are less able to offer credit solutions to commodity businesses, and operating companies would be required to set aside more capital for transactions with nonbank counterparties. Unlike the commodity activities of large U.S. banking entities, which are closely monitored by banking regulators and subject to prudential requirements, nonbanks’ activities are far less regulated or wholly unregulated and often based outside the United States.

U.S. banking entities also serve a vital role in maintaining the efficiency and viability of commodity markets, providing liquidity and helping drive price convergence and alignment. U.S. banking entities’ trading activities in commodity markets create necessary links between regions, products, and delivery of products that

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12 Figure 2 in Appendix A illustrates the fragmentation of commodity markets by showing the various natural gas delivery hubs in the United States.
foster competitive pricing and efficient allocation of commodities.¹³ For example, Morgan Stanley has electricity transmission capabilities between the Midwest and Georgia, which it can use to “wheel” or move power from an over supplied and lower priced area in the Midwest to an undersupplied, higher priced location in Georgia. This is a low risk activity for banking entities, and helps eliminate price disparities and mitigates supply shortages and price spikes to the benefit of U.S. businesses and consumers.

C. The Proposal Would Impair Banking Entities’ Ability to Provide Critical Customer Services and Liquidity to Commodity Markets

The Proposal’s approach to permitted market making-related activities appears to assume that all markets, including commodity markets, provide high levels of liquidity, trade on organized exchanges, and primarily employ agency transactions.¹⁴ These assumptions are not consistent with the operations of many commodity markets. Particularly problematic aspects of the Proposal are the overly restrictive view of market making revenues, the requirement for a market maker to hold itself out as being willing to buy and sell on a regular or continuous basis, the narrow interpretation of meeting near term customer demand, and the limitations on permitted hedging.

Market makers in commodity markets are required to act as principal to meet bespoke, often long-term business needs of customers and to mitigate risks they assume in providing these customer services. Moreover, only by actively participating in commodity markets as principal can market makers acquire the market knowledge needed to price customer commodity transactions and develop the capacity and expertise to meet customers’ needs.

The process of market making involves building an inventory of supply and demand contracts, long and short positions. Market makers will build inventory based on their best expectation of customer flows, knowledge of market trends, and of potential upcoming transactions. Many customer trades can also be uncertain — a major customer transaction may be under discussion over a long period of time and eventually may not be realized at all. Compared to more liquid markets, the building of inventory in commodity markets may not appear to be directly related to demand from a particular customer even though it is built to anticipate potential customer demand, and may be difficult to square with the Proposal’s requirements for permitted market making activities.

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¹³ See, e.g., Scott H. Irwin, Dwight R. Sanders & Robert P. Merrin, Devil or Angel? The Role of Speculation in the Recent Commodity Price Boom (and Bust), 41 J. Agricultural & Applied Economics 377, 385 (in examining pricing bubbles in commodity markets, noting that “large and long-lasting bubbles are less likely in markets where deviations from fundamental value can be readily arbitraged away . . . .”).

¹⁴ See also the SIFMA comment letter.
A banking entity that cannot engage in sufficient trading activity to maintain its knowledge of commodity market dynamics will be unable to properly price customer transactions and will likely incur greater risks when serving customers. This result would be inconsistent with the express intent of Congress to implement the Volcker Rule in a manner that promotes and enhances the safety and soundness of banking entities, and protects taxpayers and consumers by minimizing the risk that banking entities will engage in unsafe and unsound activities.\textsuperscript{15}

The Proposal’s requirements for hedging are also problematic. Commodity customer transactions require banking entities to engage in often complex unwind strategies and careful management of principal risks to avoid undue trading losses. Market makers often must accept new risks in related commodities or durations to manage their overall positions. This management of principal risk could be at odds with the Proposal’s requirements for permitted hedging activities, which do not account for these types of new, but more acceptable risks or the need to hedge in related commodities or markets.

II. Example Customer Transactions Impaired by the Proposal

Companies across many sectors of the economy seek the assistance of banking entities, such as Morgan Stanley, to reduce or eliminate commodity-related risks that constrain their ability to make investments and maintain profitability over time. The following examples illustrate how Morgan Stanley helped three such customers to eliminate these risks and achieve their goals of profitably growing their businesses.

A. Helping a Renewable Energy Producer Build a Wind Farm

Morgan Stanley helped a renewable energy project developer finance the construction and operation of a 210 megawatt wind farm in Montana. The developer required a tax equity investor,\textsuperscript{16} a construction loan, and full-service power scheduling into real-time markets. Perhaps most critically, the developer required a revenue hedge to assure its investors that the project would produce a minimum level of cash flow. Given its expertise and operational capabilities in the power markets, Morgan Stanley was able to provide the wind farm developer with an integrated solution to meet all of the developer’s needs. This integrated solution included the power price hedge that assured the developer a minimum revenue stream.

Under a potential interpretation of the Proposal, Morgan Stanley may have been unable to provide this hedge to the developer and, absent the hedge, the wind farm would not have been built. The wind farm developer approached Morgan Stanley to provide the hedge. Given the nature of the market, Morgan Stanley was not providing two-way quotes but rather was available to meet customer demand when it was

\textsuperscript{15} See, e.g., 12 USC 1851(b)(1)(A) and (B).

\textsuperscript{16} Because U.S. public policy supports clean energy development through tax incentives, developers seek to partner with investors who can benefit from these tax incentives based on their other taxable income.
approached. To provide the power price hedge to the wind farm developer, Morgan Stanley engaged in multiple power transactions ancillary to its obligations to the developer. Morgan Stanley needed to be an active participant in the power, gas, and transmission markets to be able to develop internal price information (including forward price and volatility curves, correlations, assessments of market depth, the availability of hedging alternatives, and associated transaction costs) to efficiently price the hedge.

Active market participation prior to the developer’s request for a hedging arrangement was critical so that Morgan Stanley could appropriately evaluate the risks associated with the transaction and to understand local market supply and demand dynamics. Understanding the local markets was critical not only to price the hedge and manage risks, but also to provide the required power scheduling services. Morgan Stanley needed to build an inventory of hedging positions prior to the customer transaction and engage in transactions subsequent to the hedge with the developer to manage its own risk; given the significant illiquidity of the Northwest power market, these transactions included a combination of trades in similar but not fully correlated products. As a principal in the hedge with the developer, Morgan Stanley realized revenues from price movements of its positions, but did not generate revenues from fees or commissions. These activities were essential to Morgan Stanley’s ability to service the wind farm developer, but could be viewed as problematic under the Proposal.

B. Helping a Major U.S. Airline Reduce Jet Fuel Related Costs

As part of a Chapter 11 restructuring, a leading U.S. airline sought Morgan Stanley’s help to reduce its operating costs, working capital requirements, and balance sheet usage associated with its jet fuel supply. Prior to bankruptcy, the airline managed a large jet fuel supply operation in which it maintained up to a month’s inventory, creating significant operational overhead and a need for costly financing. To reduce these expenses, Morgan Stanley provided the airline a long-term contract for delivery of jet fuel, typically one day prior to the airline’s daily need to service its fleet. Morgan Stanley provided all logistical support and sold the airline jet fuel at a lower price than it was paying previously. This enabled the airline to reduce its operating expenses, reduce the size of its balance sheet and lower its overall interest expense.

Under a potential interpretation of the Proposal, Morgan Stanley may have been unable to provide the airline with this service because the expertise in jet fuel markets required to price and structure the transaction could only be developed by actively trading in these markets. This customer transaction did not arise from Morgan Stanley’s providing two-way quotes in the jet fuel markets; rather, Morgan Stanley was approached by the U.S. airline to develop an integrated solution.

Many of the 80 different jet fuel markets are highly illiquid, and Morgan Stanley was only able to price the transaction by acting as a principal, building inventory of physical product, engaging in transactions for related products in multiple markets, and engaging in other transactions in anticipation of demand from the airline. These included transactions in forward contracts. Moreover, to obtain the most effective hedge for its own risk management, Morgan Stanley needed to trade in illiquid jet fuel
and the related, but not identical, liquid heating oil markets. Morgan Stanley was able to offer the airline lower jet fuel prices in part from its ability to generate revenue from price movements on its positions and through the use of assets leased from the airline. Morgan Stanley did not generate revenues from fees, commissions, or bid/ask spreads. Each of these elements of the transaction could be viewed as problematic under the Proposal and might have prevented Morgan Stanley from helping this airline reduce its fuel related costs during and after bankruptcy.

C. Enabling a Major Natural Gas Producer to Develop New Fields

During the recent domestic shale gas boom, a major U.S. natural gas producer approached Morgan Stanley for a price hedge on its future production. The producer needed funds to expand its drilling operations and develop new gas fields. To meet the customer’s needs, Morgan Stanley helped the producer hedge by purchasing a large volume of long dated natural gas call options from the producer. Morgan Stanley did not require the U.S. producer to post margin as the price of natural gas changed; instead, it took a secured interest in the producer’s assets. This permitted the U.S. producer to use available cash to immediately develop new gas fields and invest future cash in new gas field developments while ensuring its future production margin was still profitable. The increase in gas supply during this period has led to the current record low prices in natural gas.

Under a potential interpretation of the Proposed Rules, Morgan Stanley may have been unable to offer the U.S. natural gas producer the hedging solution, and many of these new fields would not have been developed. As in the case of the previous two examples, these types of transactions are not effected through dealers providing two-way quotes, and Morgan Stanley was not providing such quotes when it was approached by the natural gas producer. In order to provide the hedge needed by the natural gas producer in a safe and sound manner, Morgan Stanley needed to be an active participant in the relevant market. Such participation enabled it to develop internal price information, including data such as forward price and volatility curves, price correlations, assessments of market depth, and evaluations of hedging alternatives and associated transaction costs.

In addition, prior to the transaction, Morgan Stanley had to build an inventory of positions in swaps, options, and futures to hedge its own risk; this pre-transaction accumulation of positions was needed to manage the risk (time spread, volatility, and location risk) created by purchasing the options written by the producer in an illiquid market segment. To obtain the most effective hedges for its own risk management, Morgan Stanley needed to trade in different types of illiquid and liquid natural gas contracts. Although it liquidated a portion of the risk, Morgan Stanley necessarily retained and actively managed elements of the risk, in particular certain elements of market and credit risk, throughout the duration of the transaction, due to the unavailability of appropriate, cost effective hedging options. Morgan Stanley realized revenues from the movement in the prices of its positions. These activities were essential to Morgan Stanley’s ability to service the U.S. natural gas producer, but could be viewed as problematic under the Proposal.
III. Recommendations

Morgan Stanley recommends that the Agencies modify the Proposal as follows to reflect the specific characteristics of commodity markets and to preserve the important role of banking entities in permissible activities in these markets.

Recommendation 1: Exclude forward contracts. 17

Specific changes required:

Remove from the definition of “derivative:” “Any purchase or sale of a nonfinancial commodity for deferred shipment or delivery that is intended to be physically settled.”

Rationale:

The proposed regulations include in the Section __.2(l)(i) definition of derivative “any purchase or sale of a non-financial commodity for deferred shipment or delivery that is intended to be physically settled.” Such purchases or sales, commonly known as “forwards,” would therefore be subject to the general prohibition on proprietary trading under the Proposal. We urge the Agencies to exclude forwards from the definition of derivatives, for three reasons. First, the statutory text of the Volcker Rule does not cover these contracts, and legislative history demonstrates that Congress intended to exclude both spot commodities and forward commodity contracts from the Rule. Second, treating forwards as derivatives is wholly inconsistent with existing law, including the Commodity Exchange Act, Title VII of the Dodd-Frank Act, and longstanding CFTC positions. Third, subjecting forwards to the Volcker Rule would jeopardize commodity transactions that are critical to liquidity in fragmented, illiquid commodity markets essential to U.S. commodity producers and end users.

Congress intended forwards to be excluded from the Volcker Rule

The Volcker Rule applies to certain transactions in “any security, any derivative, any contract of sale of a commodity for future delivery, any option on any such security, derivative, or contract, or any other security or financial instrument that [the Agencies determine by rule].” 18 The italicized phrase – “contract of sale of a commodity for future delivery” – is the term of art for futures contracts. It is not used to refer to forward contracts under existing law or in the Proposal.

The Senate-passed financial reform bill that served as the base text for the Dodd-Frank Act conference proceedings contained broader commodity-related language: “stocks, bonds, options, commodities, derivatives, or other financial instruments . . . “ (emphasis added). In addition, the House-passed companion

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17 This section addresses Questions 54 and 56 of the Proposal.

18 Bank Holding Company Act §13(h)(4) (emphasis added).
legislation on financial reform, which contained a weaker predecessor to the Volcker Rule, used language identical to the Senate bill in this respect.

During the conference, Congress eliminated the referenced to “commodities,” replacing it with “contract of sale of a commodity for future delivery,” indicating that Congress considered and ultimately rejected a broader definition of proprietary trading that would reach not only commodity futures transactions but also spot and forward transactions. The statutory text thus does not apply to commodities generally. Although the Agencies explicitly carved out spot commodities from the proposed regulations, they inserted forward transactions by including them in the definition of derivative – contrary to Congress’s intent to remove transactions in commodities from the Volcker Rule’s scope, effectively reversing the change Congress made at conference.

Forwards are commercial contracts, not derivatives

The Agencies justify the inclusion of forward contracts in the term “derivatives” on the grounds that they appear to be, or operate in economic substances as derivatives, and “which if not included could permit banking entities to engage in proprietary trading that is inconsistent with the spirit of section 13 of the [Bank Holding Company] Act.” However, this ignores the true nature of forward contracts as physical transactions in commodities, in contrast to derivative transactions based on commodity prices. This distinction is clearly reflected elsewhere in the Dodd-Frank Act.

The new swap regulatory regime created by Title VII of the Dodd-Frank Act specifically excludes forwards because they are economically different from swaps. As noted by the SEC and CFTC in proposed rules to implement Title VII: “Forward contracts with respect to nonfinancial commodities are commercial merchandising transactions. The primary purpose of the contract is to transfer ownership of the commodity and not to transfer solely its price risk.” This exclusion of forwards

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19 This phrase is used repeatedly throughout the CEA and Title VII of the Dodd-Frank Act to refer to futures contracts and only to futures contracts. Indeed, the CEA specifically excludes forward contracts from the definition of “contract of sale of a commodity for future delivery,” (see Section 1a(27) of the CEA) by providing in Section 1a(27), a provision commonly referred to as “the forward contract exclusion,” that the term “future delivery” does not include any sale of any cash commodity for deferred shipment or delivery.” See Further Definition of “Swap,” “Security-Based Swap,” and “Security-Based Swap Agreement”; Mixed Swaps; Security-Based Swap Agreement Recordkeeping, Proposing Release, Release No. 33-9204, 34-64372, 76 Fed. Reg. 29818, 29821 (May 23, 2011) (“The wording of the forward contract exclusion from the swap definition with respect to nonfinancial commodities is similar but not identical to, the forward contract exclusion from the definition of ‘future delivery’ in the CEA.).

20 It is a canon of statutory interpretation that where Congress used a term of art that has a specialized meaning in the area of law, it is understood that Congress borrowed the term and intended that specialized meaning to apply. See, e.g., Sullivan v. Stroop, 496 U.S. 478, 483 (1990); McDermott Int’l v. Wilander, 498 U.S. 337 (1991).


accords with the long-standing exclusion of forwards from the CEA is based on the “underlying postulate . . . that the [CEA’s] regulatory scheme for futures trading simply should not apply to private commercial merchandising transactions which create enforceable obligations to deliver but in which delivery is deferred for reasons of commercial convenience or necessity.” Accordingly, where particular transactions have raised questions regarding applicability of the so-called “forward contract exclusion” under the CEA, the courts and the CFTC have been cautious in weighing potential disruptions to important commercial markets.

The Proposal is also internally inconsistent in its treatment of forwards. The Proposal explicitly includes forwards in the definition of derivative but also excludes any “consumer, commercial, or other agreement, contract, or transaction that the CFTC and SEC have further defined . . . as not within the definition of swap” for purposes of the CEA. As noted above, the CFTC and SEC have, in fact, proposed to exclude forwards from the definition of swap precisely because they are “commercial merchandizing transactions.” The Proposal’s inconsistency can be reconciled only on the basis that the Agencies have somehow failed to recognize that forward contracts are commercial transactions – contrary to the SEC and CFTC jointly proposed regulations and extensive CFTC precedent. As noted above, forwards have been distinguished from derivatives for regulatory purposes with great consistency – except in the Proposal.

We believe that excluding forward contracts from the scope of the Volcker Rule is necessary to satisfy legislative intent and the public policy considerations embodied in the Dodd-Frank Act that seek to avoid disrupting vital commercial markets and that recognize the legitimate, commercial nature of these transactions. Forwards are commonly used by operating companies to manage the supply of commodities and risks associated with their commodity-related businesses. Treating forwards as derivatives would jeopardize commodity transactions at the core of the U.S. economy. Failing to respect the role of these instruments as part of the physical commodity markets would create an unprecedented regulatory intrusion into commodity markets, whose price fluctuations reverberate throughout the economy. We urge the Agencies to effectuate congressional intent and exclude forwards from the definition of derivative and, thus, from the purview of the Volcker Rule.


25 Swap Definition Release, 76 FR 29828.
Make specific changes to the market making criteria to ensure banking entities can continue to support commodity customer needs.

Recommendation 2: The regular or continuous quoting requirement should be revised to accommodate market making in commodity markets.

Specific change required: 26

Add italicized language to the regular or continuous criterion as follows:

The trading desk or other organizational unit that conducts the purchase or sale holds itself out as being willing to buy and sell, including through entering into long and short positions in, the covered financial position for its own account on a regular or continuous basis, or, in markets where regular or continuous quotes are not typically provided, the trading unit stands ready to provide quotes upon request.

Rationale:

The Proposal would require, as a prerequisite to permitted market making-related activities, that the trading desk “hold[] itself out as being willing to buy and sell . . . the covered financial position for its own account on a regular or continuous basis.” Although the Agencies acknowledge in the preamble that the degree to which a trading desk “holds itself out” depends upon the liquidity, infrastructure, trading volumes, and other market-specific factors, 27 no exceptions or qualifications are provided in the text of the rule.

This criterion is not practicable in illiquid markets, where both sides of the market are not usually present on a regular or continuous basis and where market makers do not customarily provide two-way quotes at all – much less on a regular or continuous basis. As illustrated by the transactions described above with the wind farm developer, the U.S. airline, and the natural gas producer, in commodity markets the needs of commodity producers and end users are often for highly customized transactions and do not arise continuously or predictably. A banking entity is generally sought out by a customer and tailors the transaction to the customer’s needs. Furthermore, in many commodity markets, market makers buy a commodity in a location where it is produced and sell it in another location. But in neither location would two-sided markets exist to enable a market maker to hold itself out as buying and selling the commodity. In many commodity markets, a market maker simply could not prudently hold itself out as willing to enter into either side of a transaction on a regular or continuous basis.

26 This section addresses Question 91 of the Proposal.
Recommendation 3: Clarify the near-term demand requirement to reflect the infrequent and bespoke nature of commodity customer transactions.

Specific changes required: 28

- Revise the near-term demands criterion as follows: “The market making-related activities of the trading desk or other organizational unit that conducts the purchase or sale are, with respect to the covered financial position, designed not to exceed the reasonably expected near-term demands of clients, customers, or counterparties, based on the characteristics of the relevant market and asset class.”

- Remove the narrow interpretation of “near term” from the preamble and replace it with the standard that the purchase or sale is “reasonably consistent with observable customer demand patterns and, in the case of new asset classes or markets, with reasonably expected future developments on the basis of the trading unit’s customer relationships.”

Rationale:

Under the Proposal, market making-related activities must be designed “not to exceed the reasonably expected near term demands of clients, customers, and counterparties” to qualify for the market making exemption. We recommend a clarification in the final rule to recognize that “near term” is not a one-size-fits-all standard.

As illustrated by the examples above, commodity producers and users seek out commodity market makers for large, tailored transactions that occur infrequently. Morgan Stanley may not be able to predict when and where a wind farm will be built, the specific services that an airline may need as part of its bankruptcy restructuring, or the various financing and hedging needs of a commodity developer in pursuing new resources. But it stands ready to meet these needs, when they arise. It would be difficult, if not impossible, for Morgan Stanley to obtain the market knowledge and pricing information it needs, and engage in the risk mitigation required, to provide these types of commodity customer services under an interpretation of “near term demand” that does not reflect the characteristics of commodity markets or a requirement that such activity must be related to the clear, demonstrable trading interest of customers.

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28 This section addresses Questions 87, 88, and 94 of the Proposal.
**Recommendation 4: The revenues criterion should be deleted.**

Specific change required: 29

Remove the revenues criterion in its entirety. That criterion currently requires that:

- The market making-related activities of the trading desk or other organizational unit that conducts the purchase or sale are designed to generate revenues primarily from fees, commissions, bid/ask spreads or other income not attributable to: (A) Appreciation in the value of covered financial positions it holds in trading accounts; or (B) The hedging of covered financial positions it holds in trading accounts.

**Rationale:**

We appreciate the supervisory objective of ensuring market makers derive their revenues primarily from customer-facing activities and not from prohibited proprietary trading. We further appreciate that the Agencies sought to achieve this objective by requiring market makers to derive their revenues primarily from fees, commissions and bid/ask spreads and by establishing a set of well-defined, measurable criteria against which market makers could be evaluated. However, there appears to be a real misconception about how market makers’ revenues are generated, and their ability to capture market making spreads, that we believe prevents this criterion, in its current form, from achieving this important objective. Our general comment letter discusses in detail the reasons why this test simply does not reflect the types of revenue generated by a market maker in most, if not all, markets – particularly when the market maker acts as principal. That letter also describes why principal market making results in a market maker earning revenues from price movements in the positions it holds, including from hedge positions.

These concerns apply fully to market making activities in commodity markets. Morgan Stanley’s revenue from the customer-facing transactions with the wind farm developer, U.S. airline, and natural gas producer represented appreciation in prices of positions assumed or hedges undertaken in connection with those transactions. As described above, Morgan Stanley needed to manage its risk through hedges in related, but not identical, commodities, instruments, and markets. These revenues from market movements and hedges that, as a market matter cannot be perfectly hedged, represent the predominant source of revenue for market makers in many commodity customer transactions. Moreover, the test would seem to prohibit Morgan Stanley from actively participating in the market in advance of a customer transaction for price discovery and maintaining market expertise. In short, the revenue test does not reflect market making in commodity markets. We recommend that it be removed.

*29 This section addresses Questions 92, 93, 177, and 183 of the Proposal.*
**Recommendation 5: Add a new customer-facing criterion.**

Specific changes required.\(^{30}\)

As set out in detail in our overall comment letter, we believe that the Agencies should adopt an additional market making criterion that would read as follows: “*The market making-related activities are part of a customer-facing business, as determined in accordance with non-exclusive factors such as sales coverage, provision of execution services, creation and dissemination of research and other trading content to customers, and a focus on building customer relationships over time.*”

**Rationale:**

As illustrated by the transactions described above, Morgan Stanley must actively participate in the relevant commodity markets before, during, and after customer transactions to provide the services needed by its customers. These activities enable Morgan Stanley to develop and maintain the market expertise it needs to properly price customer transactions, to manage the risks it assumes in connection with those transactions, and to maximize the value of the positions it takes to support customer transactions.

For example, to accurately price the hedge for the wind farm developer, as discussed above, Morgan Stanley needed to develop the detailed market information to construct forward price and volatility curves and evaluate multiple hedging alternatives through active participation in power, gas, and transmission markets. Morgan Stanley was able to develop a cost-reducing solution for the U.S. airline’s jet fuel needs because through principal transactions it had developed the market expertise and analysis to price the transaction and was able to hedge its own risk from the customer transaction by trading in multiple markets, including jet fuel markets as well as related heating oil markets. These and the other activities highlighted above enable Morgan Stanley to provide customer services effectively and in a safe and sound manner; and doing otherwise could both reduce the effectiveness of its customer facing activity and could increase its own risk exposure. Such a result would be entirely inconsistent with the purposes of the Volcker Rule.

We recognize that, to reflect the purpose of the Volcker Rule, trading activities should be limited to markets in which a banking entity serves as a market maker within a customer-facing business. As discussed in greater detail in our overall comment letter, whether the market making activities of a trading unit are part of a customer-facing business should be determined by reference to a non-exclusive list of factors set forth in an appendix to the rule or supervisory guidance.

\(^{30}\) This section addresses Question 92 of the Proposal.
Reformulate the Proposal’s approach to hedging

Recommendation 6: Reformulate the Proposal’s approach to hedging to provide needed flexibility to a banking entity in determining how to best hedge its risks.

Specific changes required.\textsuperscript{31}

As discussed in more detail in our overall comment letter, we suggest that the Agencies completely reformulate the hedging criteria to reflect the manner in which banking entities manage risk. The alternative framework described in our overall comment letter focuses on overall risk management rather than compliance with hard-coded criteria that could be interpreted to apply on a trade-by-trade level. The framework is designed to ensure, through risk limits, policies and procedures, and oversight, that the hedging permitted activity is not prohibited proprietary trading, and would provide banking entities with the flexibility they need to hedge efficiently and effectively.

Rationale:

Hedging transactions play an important role in mitigating risk to banking entities. The Volcker Rule regulations should encourage hedging activities and provide banking entities with flexibility to determine how best to hedge their risks. We believe that the Agencies’ approach to defining permitted hedging activity would unnecessarily limit the ability of banking entities to efficiently hedge their transactions in a safe and sound manner. In particular, we are concerned that the proposed requirements that each hedging position reasonably correlate to the underlying risks being hedged, and that banking entities continually monitor for such correlation, on their face could apply at the individual trade level. Moreover, the requirement that a hedging position not give rise, at its inception, to significant new exposures that are not themselves hedged in a contemporaneous transaction could prohibit banking entities from engaging in the types of hedging available to them in commodity markets. This result would be contrary to the purpose of the Volcker Rule.

The Proposal’s potential impairment of banking entity’s ability to hedge is readily apparent in the context of commodity markets. For example, Morgan Stanley frequently provides long dated hedges to commodity customers, including the type of hedge provided to the natural gas producer described above. Because of the long-term and customized nature of these hedging transactions, limited instruments are available to directly hedge Morgan Stanley’s risk exposure. In the case of the natural gas long-term hedge, Morgan Stanley relied upon relatively liquid near-term natural gas contracts traded on the NYMEX. However, because of the difference in expiration and delivery location between the underlying transaction and the actual hedging transaction, this hedge could be deemed to create new risk, albeit at a reduced level.

\textsuperscript{31} This section addresses Question 98 of the Proposal.
In connection with the Montana wind farm transaction, given the illiquidity in the long-dated Montana power markets, Morgan Stanley had to hedge using a variety of futures, swaps, and options on various proxy underlying commodities, including natural gas, power, and transmission. These raised new and separate risks compared to Montana wind energy. However, while these may be new risks in a literal sense, market makers carefully assess the risks and determine that they are more acceptable from a risk perspective than maintaining the underlying risk completely unhedged.

As these examples illustrate, market makers in illiquid commodity markets frequently may give rise to significant new exposures that may not be easily hedged or may be hedge imperfectly with available hedging instruments. These hedging activities should be encouraged – not impaired – by Volcker Rule regulations.

IV. Conclusion

Restricting the ability of banking entities to provide core market making and related services in commodity markets would deprive customers – many of which are commodity businesses or users at the heart of the U.S. economy – of critical credit and hedging services and deprive the commodity markets of functions that bring commodity supply to underserved regions and help reduce price inefficiencies. In key areas, the Proposal’s restrictions are not required by the Volcker Rule or necessary to achieve its purpose. The extension of the Volcker Rule’s prohibition into transactions that are part of, or supportive of, the commodity markets would create consequences unforeseen, and surely unintended, by Congress.

In short, interpreting permitted activities under the Volcker Rule so narrowly as to impair the ability of banking entities to provide critical commodity-related intermediation services to their customers would be wholly inconsistent with the purposes of the Rule. Given the serious nature of these effects, and the potential for harm to the U.S. economy, the Agencies should carefully reconsider the Proposal. In reassessing the Proposal, the Agencies should ensure that Morgan Stanley and other similarly situated U.S. banking entities can continue to provide services critical to the operations of U.S. companies engaged in commodity-related businesses and to other users and consumers of commodities.
The potential consequences of the Proposal for commodity markets and the ability of U.S. banking entities to provide commodity customer services are significant. We appreciate the Agencies’ consideration of our suggested modifications to the Proposal, which we believe are fully consistent with the Volcker Rule and would preserve the ability of U.S. banking entities to provide these critical customer services. We urge the Agencies to modify the Proposal accordingly.

Respectfully submitted,

[Signature]

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Appendix A

Figure 1: Commodity Market Liquidity is Concentrated in Near-Term, Hub Contracts

Figure 1 shows that the majority of trading volume for key wheat, gold, natural gas, and oil contracts occurs in the nearest six months, while futures with delivery dates more than one year out have drastically lower liquidity levels. As a result, end users seeking long-term hedges must turn to counterparties, particularly banking entities, in the OTC markets able to assume the risk of these contracts for which exchange-traded contracts are unlikely to be available.

Majority of trading for futures takes place for the nearest six months
NYMEX, CBOT, COMEX futures average monthly trading volume by standardized contract maturity

Figure 1
Figure 2: Commodity Markets are Inherently Fragmented

Figure 2 below shows the approximately 30 U.S. delivery hubs for natural gas contracts. These are only a small fraction of the more than 11,000 total natural gas delivery points in the United States. The multitude of potential delivery points for natural gas contracts results in a relatively small number of participants and low liquidity levels for contracts referencing the vast majority of delivery points.

Sources: Energy Information Administration, “About U.S. Natural Gas Pipelines”, June 2007; Energy Information Administration, “Natural Gas Pipeline Network 2009"