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Oct. 29, 2001

Via Electronic Mail and U.S. Mail

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Re: File No. S7-16-01, Release No. 34-44853, Customer Margin for Security Futures

Dear Ms. Webb and Mr. Katz:

Enclosed are my comments on Joint Proposed Rule: Customer Margin Rules Relating to Security Futures, Release No. 34-44853, File No. S7-16-01 (Sept. 25, 2001).

Respectfully submitted,

Frank Partnoy
Professor of Law, University of San Diego School of Law

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Comments on Joint Proposed Rule: Customer Margin Rules Relating to Security Futures, Release No. 34-44853, File No. S7-16-01 (Sept. 25, 2001)

Submitted by Frank Partnoy, Professor of Law,
University of San Diego School of Law, Oct. 29, 2001

The Securities and Exchange Commission ("SEC") and the Commodity Futures Trading Commission ("CFTC") have requested comments on Joint Proposed Rule: Customer Margin Rules Relating to Security Futures (the "Release").[1] I am submitting these comments in response to the requests of the SEC and CFTC (the "Commissions").

My overall conclusions about the Release are twofold. First, I do not believe the Commissions' proposed margin requirements for security futures satisfy the CFMA's requirements to preserve market integrity and prevent systemic risk. Second, I do not believe the Release provides adequate notice and opportunity for comments, for reasons described in detail below. Accordingly, I do not believe the Commissions can or should adopt the rules set forth in the Release, because neither the statutory nor administrative law requirements have been satisfied.

With respect to the substance of the proposals in the Release, I will – after offering some general comments – focus on the two aspects of the rules I believe are most important.[2] First, the rules establish the minimum initial and maintenance margin levels required for customers carrying a long or short security futures position at 20% of the "current market value" of such position.[3] I believe the Release does not set forth a sufficient justification for an across-the-board 20% requirement, and recommend that the initial and maintenance margin levels be greater than 20% (at least initially) for directional (i.e., long and short) positions in security futures. In addition, the 20% margin requirement for security futures creates incentives for market participants to transact in security futures instead of in cash stock markets, thereby shifting trading from cash to futures, and I do not believe the Commissions have addressed the probability and likely consequences of such a shift. My conclusions are based both on an analysis of the SEC's limited study of systemic risk concerns and on an analysis of how differential margin requirements would affect trading in economically equivalent transactions, particularly in the cash stock and options markets.

Second, the rules permit the exchanges and other self-regulatory organizations to provide that customers with strategy-based offset positions involving security futures and one or more related securities or futures have minimum initial and maintenance margin levels lower than the aggregate margins for the components of an offset position, provided that such minimum margin levels are consistent with the margin requirements for comparable offset positions involving exchange-traded option contracts.[4] I do not believe the Commissions have adequately addressed this issue, and I believe the margin requirements associated with the Examples set forth in the Release are both too high and too low, depending on the positions. In particular, I believe margin requirements for

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[1] Release No. 34-44853; File No. S7-16-01 (Sept. 25, 2001).

[2] The Commissions' Question 11 specifically solicits comments on these topics.

[3] Proposed CFTC Rules 41.44(a)(2), 41.45(b) and Proposed SEC Rule 401(a)(2), 402(b).

[4] The term "regulatory authority" means an SRO that is registered as a national securities exchange under Section 6 of the Exchange Act (15 U.S.C. 78f) or as a securities association under Section 15A of the Exchange Act (15 U.S.C. 78o-3). *See* Proposed CFTC Rule 41.44(a)(7) and Proposed SEC Rule 401(a)(7).

certain low-risk positions involving security futures should be substantially less than 20%. In general terms, I recommend that the Commissions employ a broader, category-based approach to determining the appropriate margin requirement for particular types of positions. It might be impossible for the Commissions to establish appropriate rules without revisiting the margin requirements for security and options, and therefore I also recommend that the Federal Reserve Board consider whether margin requirements for all of these instruments should be reworked, given the introduction of security futures. I describe these two major points below.[5]

The margin requirements for security futures are extremely important to the functioning of U.S. financial markets. The Commissions should not adopt margin rules relating to security futures without first undertaking the kind of careful and detailed study Congress anticipated was necessary when it delegated authority to the Commissions.

Background and General Comments

On December 21, 2000, Congress passed the Commodity Futures Modernization Act of 2000 ("CFMA"),[6] which lifted the decades-long ban on trading of single stock and narrow-based stock index futures ("security futures"). Although there was great uncertainty about whether the CFMA would become law – even as late as fall 2000 – Congress passed the measure literally at the eleventh hour, just before Congress adjourned and in the heat of debate about the results of the 2000 Presidential election.

The procedural history and late-hour passage of the CFMA are important for several reasons. First, by not considering margin requirements under the CFMA in any detail, Congress delegated to the Commissions the authority and responsibility to undertake such consideration. Accordingly, the Commissions' role in formulating and justifying an interpretation of the provisions of the CFMA is especially important. Second, although courts likely will show appropriate deference to the Commissions' rulemaking under the CFMA, the Commissions will not be able to rely extensively on legislative purpose or history arguments to support their rules, especially as to margin requirements; accordingly, the Commissions should exercise particular care with respect to margin requirement rules that future litigants might challenge as beyond the scope of or inconsistent with the CFMA.

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[5] One minor point about the proposed margin calculations is worth noting in some detail. The Commissions are proposing to use the daily settlement price of a security future as the reference price for calculating margin for such security future. The Commissions also propose to define "current market value" of a future on a single security, on any trading day, to be the product of the daily settlement price of such security future as shown by any regularly published reporting or quotation service, and the applicable number of shares per contract. *See* Proposed CFTC Rule 41.44(a)(2)(i); Proposed SEC Rule 401(a)(2)(i). Although the daily settlement price is arguably the correct benchmark for value measurement, there might be difficulties in establishing that value on particular dates, depending on the liquidity of the contract. For example, it was unclear to me whether security futures on American Depositary Receipts or Global Depositary Receipts would be permitted; if such security futures are permitted, liquidity concerns for these instruments would be important. Although there is no reason to suspect extreme illiquidity in security futures trading, the Commissions nevertheless should consider some secondary or provisional reference price to be used in the event the price of a security future for a particular date is unavailable. Two suggestions are (1) the price of the underlying stock or stock index, perhaps adjusted by an appropriate discount factor; and/or (2) the most recent closing price for the security future.

[6] Appendix E of Pub. L. No. 106 554, 114 Stat. 2763 (2000).

The CFMA established a framework for joint regulation by the CFTC and the SEC following a twenty-year "turf battle" over security futures, and I applaud the Commissions for working together – and in response to suggestions from the Federal Reserve Board – to propose rules for security future margin requirements. The Commissions and the Federal Reserve Board obviously will need to work together for many years to ensure that the margin requirements for security futures support fair and efficient markets. Any rules adopted now will frame the debate, and – importantly – will provide context for the Commissions' consideration in a few years of margin requirements for options on security futures, pursuant to Section 6(h)(6) of the Exchange Act.[7]

In my view, the customer margin requirements of the CFMA are its most important provisions.[8] Because a security future essentially is a leveraged position in the underlying security or securities, there is little economic difference – other than those attributable to the margin rules – between purchasing a stock and purchasing a security future. The same can be said of other futures markets, many of which have thrived under relatively low margin requirements.

The CFMA granted to the Federal Reserve Board the authority to prescribe customer margin regulations consistent with these requirements for transactions in security futures.[9] Section 7(c)(2) of the Exchange Act provided that the Federal Reserve Board may exercise this authority either (1) by prescribing rules establishing initial and maintenance customer margin requirements imposed by brokers, dealers, and members of national securities exchanges for security futures products,[10] or (2) by delegating this rulemaking authority jointly to the Commissions.[11] The Federal Reserve Board has opted to delegate its authority to the Commissions, with the specific request that the Commissions develop "more risk sensitive, portfolio-based approaches" to margining security futures.[12] This delegation is not necessarily permanent, and the Federal Reserve Board could decide to promulgate margin rules for security futures if it perceives that the Commissions' rules are inadequate or inappropriate.[13] My recommendation is that if the Commissions decide to implement the rules as written in the Release, the Federal Reserve Board should recapture its rulemaking authority and implement more appropriate rules after further review.

Financial Integrity and Systemic Risk

Congress has made it clear that, in order to satisfy the provisions of the CFMA, the applicable margin rules for security futures must (1) preserve the financial integrity of

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[7] 15 U.S.C. 78f(h)(6).

[8] *See* Frank Partnoy, Some Policy Implications of Single-Stock Futures, Feb. 2001, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=261896.

[9] The CFMA grants to the Federal Reserve Board the authority to prescribe regulations for brokers, dealers, and members of national securities exchanges extending or maintaining credit to or for, or collecting margin from, customers for security futures products. 15 U.S.C. 78g(c)(2)(A).

[10] 15 U.S.C. 78g(c)(2)(B)

[11] Id.

[12] Id.

[13] The Federal Reserve Board's delegation of authority is subject to the qualifier "until further notice from the Board." Letter from Jennifer J. Johnson, Secretary of the Board, Federal Reserve Board, to Mr. James E. Newsome, Acting Chairman, CFTC, and Ms. Laura S. Unger, Acting Chairman, SEC, March 6, 2001, reprinted as Appendix B to Release No. 34-44853; File No. S7-16-01.

security futures markets and prevent systemic risk, and (2) be consistent with margin requirements for comparable option contracts.[14] It remains unclear based on the Release whether a 20% margin requirement will preserve the financial integrity of security futures markets and prevent systemic risk. The statutory requirements related to financial integrity and systemic risk are serious ones, and a major reason Congress previously had not agreed to permit security futures trading was its concern about market integrity and systemic risk.

The Release does not contain extensive discussion of how the proposed margin rules would affect financial integrity and/or systemic risk. The primary support offered in the Release in satisfaction of these statutory requirements is a single study conducted by the SEC, described in Footnote 15, which is quoted below in full:

> The SEC staff examined all securities with average daily trading volume greater than 50,000, using data from 2000 from the Center for Research in Security Prices ("CRSP"). Based on this data, the SEC staff calculated the daily price returns and the 30-day historical price volatility for each of the securities examined.
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> Based on the assumption that cash and futures prices typically move together, the SEC staff conducted a preliminary simulation, using actual security price movements as estimates for would be futures price movements. Based upon these security futures' price estimates, the staff determined the margin requirements for each of these security futures under both the 20 percent strategy-based approach and the traditional risk-based futures approach. The staff examined how often the funds attributable to margin requirements are insufficient to cover the daily price movements of these security futures. This is relevant to the examination of systemic risk because a necessary condition for customer default to occur is the depletion of the funds attributable to margin requirements (assuming no market risk to close out such position).

I do not believe this study – or the description of this study in the Release – is sufficient to satisfy the statutory requirements of the CFMA. At the outset, I should note that it appears that only SEC staff, not CFTC staff, conducted this examination. Presumably, the SEC staff acted alone because they have more experience with the reference stocks for security futures. It is unclear from the discussion whether the SEC

[14] In addition, the rules must ensure that the margin requirements (other than levels of margin), including the type, form, and use of collateral for security futures, are and remain consistent with the requirements established by the Federal Reserve Board under Regulation T. 12 C.F.R. 220 et seq. More specifically, the rules require that: (1) the margin requirements for a security future be consistent with the margin requirements for comparable option contracts traded on any exchange registered pursuant to Section 6(a) of the Exchange Act; and (2) the initial and maintenance margin levels for a security future not be lower than the lowest level of margin, exclusive of premium, required for any comparable option contract traded on any exchange registered pursuant to Section 6(a) of the Exchange Act, other than an option on a security future. The proposed rules recognize that security futures can compete with, and be an economic substitute for, equity securities, such as equity options. Specifically, a synthetic futures contract may be created by two option contracts based on the same underlying instrument plus a lending or borrowing transaction. To create a synthetic long (short) futures contract, an investor would buy (sell) a call option and sell (buy) a put option on the same underlying security with the same expiration date and strike price, while lending (borrowing) the present value of the exercise price. *See* 15 U.S.C. 78f(a).

staff received any input from the CFTC staff regarding their conclusions. Accordingly, my comments are directed primarily to the SEC staff. However, it is worth noting that even if the CFTC staff does not have extensive expertise in stock markets, it would be beneficial to have their input regarding this study, because of their considerable expertise in futures markets.

More fundamentally, the description of the study in the Release is insufficient to enable anyone adequate notice and opportunity to comment appropriately on the SEC's conclusions or on the Release more generally. Below I describe ten specific reasons for my conclusions that the descriptions in the Release are not an adequate basis for the assertion that a 20% margin requirement satisfies the CFMA. However, even if the Commissions and other commenters reject each of these reasons, I still do not believe the Release gives adequate notice and opportunity for comment with respect to the proposed rules.

First, the timing of the SEC study is unclear. Although the SEC notes that the data is from 2000, it does not indicate the specific time periods covered. In particular, it is unclear whether the study includes periods of large market movements, such as the "Market Break" of 1987 or the recent downward movements of share prices in September 2001. Not including those time periods would affect the study's conclusions.

Second, the extent to which the SEC attempted to incorporate intraday price movements is unclear. Interday closing price movements alone do not capture the risks associated with stock price volatility. An analysis of intraday price movements might lead the Commissions to conclude that a 20% margin requirement is inadequate. It also might lead the Commissions to consider whether the three-day deadline for posting margin suggested in the Release is appropriate and whether a shorter-term (or even intraday) margin requirement would be feasible or desirable.

Third, the SEC staff apparently did not consider stocks whose daily trading volumes were less than 50,000 shares. The rationale for this cutoff is unclear. If security futures are to be traded for stocks whose daily trading volumes were less than 50,000 shares, such stocks should be considered for purposes of these margin requirements. It is true that risks associated with thinly-traded stocks are less likely to be systemic than those associated with more liquid stocks, although smaller brokerage firms often specialize in trading of thinly-traded stocks. Nevertheless, the integrity of U.S. financial markets depends on those markets, too, and those stocks are within the SEC's regulatory purview. Moreover, if certain markets are likely to be less liquid after the introduction of security market futures, the trading of thinly-traded stocks (not covered by the SEC's study) would be most relevant, and conclusions based on more liquid stocks might not be applicable. If the introduction of security futures generated a substantial shift in volume from cash to futures trading, that shift would raise systemic risk questions in cash markets with low trading volumes.

Fourth, it is unclear if the SEC considered the potential effects of security futures trading on the volatility of both the underlying stocks and security futures themselves. Even if the assumption that cash and futures prices typically move together is correct, it might also be the case that both cash and futures markets become more volatile when futures are introduced. If increasing leverage increases volatility in the security futures market, the cash stock markets also will become more volatile, especially in down markets when investors might default on margin calls. Of course, the opposite might be

true, but the SEC does not appear to have considered this question. There is some historical evidence from markets outside the U.S. indicating that the introduction of futures markets with low margin requirements results in a substantial shift in trading volume away from cash markets.

Fifth, the SEC did not disclose much quantitative detail or background data associated with the study. It is impossible to comment intelligently on the Release without at least understanding the basics of the data underlying the SEC's conclusions. Presumably, the SEC staff prepared charts and tables in their consultations regarding this study, and I believe it would be necessary for anyone commenting on this study to see that detail, either so they could attempt to replicate the results of the study, or so they could analyze more precisely the underlying data and conclusions.

Sixth, the SEC does not explain whether its results are robust for different measures of volatility. In particular, it was unclear to me whether the SEC tested for measures other than 30-day historical price volatility. If not, it would be useful to why the SEC believes the 30-day measure is appropriate. If the settlement period is three days, there is an argument that a three-day volatility measure is more appropriate.

Seventh, the SEC estimated that a 20% margin requirement would reduce the chances that a margin account would not contain sufficient funds to cover a given day's price movement from approximately 5% using traditional risk-based futures margining to 0.3%. It is unclear what specific methodology the SEC used as the "risk-based futures approach"[15] in its study. This frequency and the reasoning behind conclusions drawn from it are critical to understanding the SEC staff's assessment of systemic risk. Apparently, the SEC staff made a qualitative judgment that a 10% margin requirement was not sufficient for systemic risk purposes (based presumably on its analysis of simulated customer defaults), but concluded that a 20% margin requirement was sufficient. The bases for this conclusion are unclear. In particular, it is unclear what percentage level of customer defaults constitutes the "cut-off point" where the SEC staff no longer found systemic risk concerns.

Eighth, the SEC staff rightly noted that its conclusions regarding a particular customer default assumed "no market risk to close out such position." It is unclear how the SEC staff would assess market risk in closing out positions. In particular, it is unclear whether the introduction of security futures trading would affect such market risk. In particular, if the lower margin requirements for security futures caused trading volume to shift from cash to futures, the market risk of closing out cash positions would increase.

Ninth, the SEC stated it "preliminarily believes that the proposed margin levels would be appropriate." I believe it is important to know whether the SEC staff's belief is only "preliminary" and whether there is any reason why the CFTC staff did not include a similar statement. A mere "preliminary" belief is a grossly inadequate foundation for new security futures margin rules of great importance to U.S. financial markets. In addition, it would be useful to know what factors, if any, the SEC staff might consider in reassessing its view. I believe a "preliminary" view from only one of the Commissions does not satisfy the CFMA's condition that margin requirements preserve financial integrity and prevent systemic risk.

Tenth, the SEC seemed not to consider an alternative source of liquidity in the security futures market: significantly lower margin requirements for low-risk positions in

[15] This term is used three times in the Release, but is never specifically defined.

security futures. In other words, it might be possible to create a liquid security futures market with ample low-cost opportunities for hedging by reducing substantially the margin requirements for low-risk security futures trades, while preserving a generally-applicable margin requirement for other security futures positions of greater than 20%, more in line with the margin requirements for economically equivalent cash stock positions. It was unclear whether the Commissions might propose different rules if they specifically considered these alternatives, which I describe in greater detail in the next section.

Consistency with Margin Requirements for Comparable Option Contracts

In addition to requiring that margin requirements for security futures preserve financial integrity and prevent systemic risk, the CFMA also requires that such requirements be consistent with margin requirements for comparable option contracts.[16] Moreover, the Federal Reserve Board – in delegating the authority to set margin requirements to the Commissions – specifically noted the importance of comparability.[17]

The reason for comparability is simple: minimize the costs of regulatory arbitrage.[18] In derivatives markets, there are numerous ways to create a particular economic position. Security futures can be combined with other financial instruments to create a vast array of such positions. To the extent the regulatory costs associated with one position are greater than those associated with a different (but economically equivalent) economic position, market participants will choose the less costly position. Just as a tax on one type of transaction shifts trading to a non-taxed economically equivalent transaction, margin requirements create incentives for regulatory arbitrage.

On the other hand, arbitrage transactions generally are valuable in enhancing efficiency in and providing liquidity to markets, and there are some transaction cost barriers to such arbitrage in the current markets for single stocks. For example, options on individual stocks are traded today and it is a straightforward exercise to create a synthetic futures position in a particular stock using those options. Yet the transactions costs of such trading are very high and security futures likely will provide efficient trading of such positions than options markets already provide. Likewise, various restrictions on short selling prevent arbitrage transactions that might enhance efficiency in stock markets.[19] Security futures could contribute greatly to market efficiency by encouraging such arbitrage transactions.

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[16] 15 U.S.C. 78g(c)(2)(B)(iii).

[17] It is worth noting that complete comparability is an unattainable goal, given the current margin requirements for options and stocks. To create a system with complete comparability, the Federal Reserve Board and the Commissions would need to reconsider and revise all of the margin requirements applicable to options, stocks, and security futures. In particular, the fact that the margin requirements for options do not closely track the riskiness of a position (e.g., no margin permitted for long in-the-money options) makes it impossible to create a set of security futures margin requirements that satisfy complete comparability. Given the serious drawbacks associated with the rules in the Release, it would be worth reconsidering and revising the margin requirements applicable to all financial instruments before introducing security futures.

[18] *See* Frank Partnoy, *Financial Derivatives and the Costs of Regulatory Arbitrage*, 22 J. Corp. L. 211 (1997).

[19] Consider the parent-subsidiary anomaly, in which the stock of a subsidiary is more highly valued than the parent who owns it. This anomaly could be due, at least in part, to restrictions on short selling, and therefore the trading of security futures could eliminate it. For example, some companies facing the parent-subsidiary anomaly and considering a spin-off of the subsidiary have noticed the difficulties of selling short

The Federal Reserve Board recognizes the difference between such valuable arbitrage transactions and regulatory arbitrage, which generally does not yield the same net benefits. The Commissions quite rightly are seeking in the Release to minimize the costs of regulatory arbitrage by making the margin requirements of security futures consistent with those of comparable option contracts.

As the Commissions note, all listed options currently have the same initial margin requirements:[20]

Long No margin (premium only)

Short Premium plus 20% of value of underlying[21]

The Commissions have concluded that the options contracts most comparable to futures contracts are short options contracts.[22] Accordingly, the Commissions conclude that the margin requirements of the options contracts most comparable to futures contracts (short, at-the-money equity options traded on U.S. options exchanges) are the premium plus 20% of the value of the underlying stock, and so the Commissions have proposed that 20% be the applicable initial and maintenance margin levels for long and short positions in security futures.[23] This margin requirement is substantially lower than the 50% initial margin requirement currently applicable to equity securities under Regulation T.[24]

In response to the Federal Reserve Board's suggestions, the Commissions have proposed that customers be permitted to offset security futures positions with certain related securities or futures.[25] This specific proposal takes the form of a chart of 17 "Examples" of different portfolio strategies, along with the initial and maintenance margin requirement for each strategy.

Unfortunately, the margin requirements associated with each of these 17 positions are both too high and too low. As a consequence, rules based on these Examples would restrict liquidity in security futures more than is necessary, and would encourage regulatory arbitrage transactions to avoid these rules for certain portfolio positions. The result would be the worst of both worlds: illiquidity in many markets, plus additional transaction costs associated with regulatory arbitrage as parties shift to markets with lower margin requirements for economically equivalent contracts (including markets outside the U.S.).[26]

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the shares of the subsidiary. At least one such company introduced "when-issued" derivative securities – essentially temporary security futures – and once those securities began trading, the anomaly disappeared.

[20] *See, e.g.*, Amex Rule 462; CBOE Rule 12.3; National Association of Securities Dealers ("NASD") Rule 2520; NYSE Rule 431; PCX Rule 2.16; and Philadelphia Stock Exchange Rule 722.

[21] This assumes the short position is at-the-money. In-the-money positions require in addition that the in-the-money amount be posted as maintenance margin.

[22] This conclusion is difficult to justify. No futures contract is comparable to any single option position, long or short. Instead, the Commission should have started from the premise that a synthetic option position – long or short – created using security futures should have the same margin requirements as the option position itself.

[23] *See* Proposed CFTC Rule 41.45(b)(1); Proposed SEC Rule 402(b)(1).

[24] *See* 12 C.F.R. 220.12(a).

[25] Such offsets would be available under regulatory authority rules approved by the SEC pursuant to Section 19(b)(2) of the Exchange Act. 15 U.S.C. 78s(b)(2).

[26] In addition to over-the-counter transactions similar in economic terms to security futures – many of which already are traded (e.g., equity swaps and other equity derivatives transactions) – investors will have available security futures on U.S. stocks traded on exchanges outside the U.S.

In many ways, it is not surprising that these Examples are flawed. In fact, the Commissions faced an impossible task in making margin requirements for portfolio transactions in security futures comparable to those for options. This is because the existing margin requirements for options do not closely track the risk of an options position (e.g., margin requirements include the option premium, regardless of strike price, volatility, and price of the underlying), and because the margin requirements for securities and for options are inconsistent. Consequently, it is not possible to create margin requirements for security futures that both track the risks of those positions and are consistent with the margin requirements for options.

By enumerating 17 Examples of portfolio positions with applicable margin requirements, the Commissions have made the intractable nature of this problem clear. Instead of giving examples, I propose that the Commissions state and support some general principles about how initial and maintenance margin requirements should be assessed for portfolio positions involving security futures. Ideally, the margin requirements for securities, options, and security futures should be made consistent, but that project would require a reworking of Regulation T, as well as the extensive involvement of the Federal Reserve Board.

In support of my proposal, I offer some suggestions below.[27] The Examples can be split into three broad categories: directional trades, synthetic option positions, and offsetting or basis positions. In my view, the margin requirements should differ in each category, and the Commissions would be better off articulating generalized margin standards – instead of specific Examples and rules – for each of the three broad categories.

Directional Trades

Directional trades – such as a long security future – should be subject to a simple percentage initial and maintenance margin requirement.[28] Example 1 covers long and short directional trades in security futures and indices. As discussed above, I believe there is insufficient justification for the general 20% margin requirement for security futures, and therefore I would recommend that the Commissions set that initial margin requirement higher, at least until there is greater certainty about how the margining of security futures contracts will work in practice. Unless the Commissions are able to undertake a more specific study satisfying the concerns set forth above, and unless the Federal Reserve Board and the Commissions undertake to make consistent the margin requirements for stocks, options, and security futures, I would recommend that the initial margin requirement for directional trades in security futures be set at 50%, consistent with the margin requirements for stocks. To the extent the margin requirement for directional trades in security futures is lower than that for cash stock trading, there will be incentives for market participants to shift from cash to futures trading.

It is difficult to predict how dramatic this shift might be. However, there is some historical evidence suggesting that when security futures are traded at margin

[27] These comments are broadly responsive to Questions 19-22 in the Release.

[28] To the extent a portfolio consists of both directional trades and trades described in the following two sections, applying the margin requirement applicable to the directional portion of the trade should not result in a different margin requirement than applying the margin requirement for the portfolio. This is a corollary to the Federal Reserve Board's request for comparability.

requirements substantially below those of cash stock markets, the vast majority of trading occurs in futures, not cash, markets. It is not clear in the Release whether the Commissions anticipate any such shift in volume, and whether they have contemplated the consequences of such a shift. A substantial shift in volumes from cash to futures would affect a wide range of securities regulation issues.

Synthetic Options Positions

Some portfolio positions in the Release are economically equivalent to options. These positions can be thought of as "synthetic options." The comparability criterion suggests that the margin requirement for a synthetic option should be the same as that for the option itself.

Accordingly, if margin requirements are to be comparable, the initial margin requirement for any synthetic long option position should be the net premiums paid for the synthetic option, perhaps with an upward adjustment to account for the potential illiquidity of a synthetic long option position.[29] To the extent the Commissions wish to impose an additional margin requirement cushion, they might require that parties use available options pricing methodology to evaluate properly the premium on the synthetic long option, and then require that this premium plus some cushion be posted as initial margin.[30] With such a system, as with long cash options, maintenance margin would not be required. Likewise, the initial margin requirement for any synthetic short option position also should be consistent with the current 20% margin requirements in the cash markets, and the Commissions might want to consider imposing a margin requirement based on available options pricing methodology.

Specifically, the positions described in Examples 2, 8, 9, and 14 are roughly comparable[31] to long options positions, which currently are not marginable. Examples 2 and 8 are roughly comparable to a synthetic long call option position with the same exercise price as the put option, less a borrowed amount of the present value of the exercise price of those options. Examples 9 and 14 are roughly comparable to a synthetic long put option position with the same exercise price as the call option, less a loaned amount of the present value of the exercise price of those options. These Examples can be thought of as synthetic long calls and puts.

The differential margin requirements applicable to long options positions in the cash market and to synthetic long options positions in the security futures market is problematic. The requirements will create incentives for parties to engage in regulatory arbitrage transactions. Consider the maintenance margin requirements for synthetic long options: the lower of 20% of the value of the security future position or 10% of the option exercise price plus any out-of-the-money amount. Allowing maintenance margin to be

[29] This analysis is based on the current margin requirements for options. As noted above, the option margin requirements do not closely track the risk of the option position, and therefore it is not possible to derive a margin requirement for a synthetic option that both tracks the risk of the position and is comparable to the option.

[30] Alternatively, the Commissions could consider seeking the advice of the Federal Reserve Board in reworking the margin requirements for options at the same time they reconsider margin requirements for security futures.

[31] There is basis risk for most of the contracts described in the Examples (e.g., between different index measures, different baskets, or even between the security future and the underlying stock), and this basis risk would justify somewhat higher margin requirements for these positions.

10% of the exercise price plus any out-of-the-money amount makes little sense. If the option is at-the-money, the margin requirement simply becomes 10% of the exercise price. As the option gets more out-of-the-money, the overall position becomes more valuable, and there the maintenance margin arguably should decline. Yet both measures of maintenance margin are increasing in the price of the security for synthetic call options (Examples 2 and 8) and decreasing in the price of the security for synthetic put options (Examples 9 and 14). It is difficult to understand why a maintenance margin requirement should be increasing as a position gains value.

Next, the positions described in Examples 3, 5, 6, and 7 are roughly comparable to short options positions, which currently are subject to margin requirements of the option premium plus 20% of any in-the-money amount. Examples 3 and 7 are roughly comparable to a short call option position with the same exercise price as the put option, less a loaned amount of the present value of the exercise price of those options. Examples 5 and 6 are roughly comparable to a synthetic short put option position with the same exercise price as the call option, less a borrowed amount of the present value of the exercise price of those options. These Examples can be thought of as synthetic short calls and puts.

It appears that the Commissions intended to set the margin requirements applicable to synthetic short options positions in the security futures market at the same 20% plus in-the-money amount applicable to short options positions in the cash market. This intention makes sense given existing margin rules for options, and such a margin requirement alone would not create incentives for parties to engage in regulatory arbitrage transactions.

However, the margin requirements for a synthetic short call option (Examples 3 and 7) are 20% of the market value of the short security future plus the aggregate put in-the-money amount. Yet the synthetic short call option is losing money, not when the put option is in the money (when prices are declining), but rather when the synthetic short call position in aggregate is losing money (when prices are rising), and the synthetic put option is losing money, not when the call option is in the money (when prices are rising), but rather when the synthetic short put position in aggregate is losing money (when prices are falling). Again, it is difficult to understand why the maintenance margin requirement should be increasing as that position gains value, and decreasing as it loses value.

Offsetting or Basis Positions

Offsetting or basis transactions are of much lower risk than directional trades and synthetic option positions and therefore should have much lower margin requirements. I have not attempted to replicate the SEC's study in the Release, but I believe a margin requirement of perhaps 1% to 5% would be adequate for such offsetting trades. Transactions with substantial basis risk could be subject to initial and maintenance margin requirements of perhaps 5% to 10%.

The positions described in Examples 4, 10, 11, 12, 13, 15, 16, and 17 are positions of substantially lower market risk than those in the other Examples, yet the Commissions would subject these positions either to margin requirements similar to those described in the two categories above, or in some cases to margin requirements that are even more onerous. Yet these offsetting or basis positions are precisely those that should be subject to substantially lower margin requirements, both for initial and maintenance margin.

Lowering margin requirements applicable to these positions would increase liquidity in the security futures markets, without threatening the integrity of those markets or creating systemic risks.[32]

Example 4 is a long security future plus a short cash stock position, two positions whose risks are offsetting. Yet the initial margin requirement would be set at the initial requirement under Regulation T for a short cash stock position, presumably because there are no explicit exemptions from Regulation T for portfolio positions.[33] The maintenance margin requirement is lowered to 10% of the market value of the cash stock position, but even 10% is a very high margin requirement considering the risks associated with this position.

Similarly, Example 13 is a short security future plus a long stock cash position, two positions whose risks also are offsetting. Yet the initial margin requirement would be set at 50% of the market value of the stock, based on Regulation T, and the maintenance margin requirement would be lowered only to 10% of the market value of the stock. This margin requirement is excessive, given the very low risk associated with these offsetting positions.

Example 10 involves offsetting positions in long and short security futures only (no cash stock positions) and therefore is not subject to the portions of Regulation T currently applicable to cash long and short stock positions. Nevertheless, the initial and maintenance margin requirements are set at 10% of the value of the stock, a very high level given the fact that the positions are offsetting.

It does not appear that the Commissions have attempted to estimate the probable customer default losses associated with these positions. There is no SEC study cited in the Release similar to that relied on generally for the 20% margin requirement. Customer default losses on these positions would be expected to be very low, close to zero, even in times of substantial market volatility. As long as the offsetting position is maintained, an adequate margin requirement arguably could approach zero. A low margin requirement for such positions would enhance liquidity in both and cash and futures markets, and these liquidity enhancements would benefit all parties transacting in those markets, including those with positions that are not offsetting.

Examples 11 and 15 are somewhat riskier than Examples 4, 10, and 13 in that they involve the creation of synthetic offsetting positions. Example 11 is similar to Example 4 in that one leg of the transaction is a long security future; Example 11 differs in that the other leg is a synthetic cash short position composed of a long put option and a short call option (with the same exercise price). Example 15 is similar to Example 13 in that one leg of the transaction is a short security future; Example 15 differs in that the other leg is a synthetic cash long position composed of a short put option and a long call

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[32] Moreover, encouraging offsetting positions likely would improve the efficiency of both the security futures markets and the underlying cash stock markets, because these trades by definition cross both markets. Offsetting positions might even preserve cash market liquidity, which otherwise would be threatened by the more attractive security futures markets. Given the lower margin requirements, institutional trading (and perhaps a great deal of individual investor trading) is likely to shift from cash stocks to security futures, leaving at least some investors buying and selling cash stocks in less liquid markets.

[33] Accordingly, Example 4 is a good example of why reworking the margin requirements for all financial instruments – stocks, options, and security futures – is necessary to have a complete and comparable system. The same is true of Example 13.

option (with the same exercise price). Example 11 is known generically as a conversion; Example 15 is known as a reverse conversion. These trades already occur in the cash markets.

The initial margin requirements for Examples 11 and 15 (of 10% plus the in-the-money option amounts) are excessive. Moreover, these margin requirements are asymmetric (they increase more in one direction – when the option is in-the-money – than they do in the other), notwithstanding the symmetric nature of the underlying portfolio transaction.

Examples 16 and 17 are similar to Examples 11 and 15 in that one leg of the transaction is long and the other is short. The difference is that these Examples involve basis risk (e.g., the difference between movements in a narrow basket and a broad basket of securities). Example 16 involves the basis risk of a basket of narrow-based security index futures against a broad-based security index future. Example 17 involves the basis risk of a basket of security futures against a narrow-based security index future. To the extent the legs of these transactions track each other (i.e., there is no basis risk), Examples 16 and 17 are equivalent to Example 10. Yet the initial (20%) and maintenance (10%) margin requirements are very high, given the risk associated with the transactions.

Example 12 is a hybrid of an offsetting or basis position and a synthetic option position. There are a wide range of option collar transactions and complex option trading strategies that might be matched with security futures in a variety of ways, including Example 12. It is difficult to anticipate all such trading strategies, so my suggestion that the Commissions set forth general standards with respect to margin requirements especially makes sense with respect to Example 12. The relevant standard should be that the margin requirements for complex options transactions involving security futures should be the same as the margin requirements of similar transactions in the cash markets.

In general, I caution the Commissions against attempting to define the rules applicable to every particular options strategy through a set of detailed Examples. The incontrovertible lesson from recent attempts at financial regulation of derivatives[34] is that clear rules often are counterproductive, because of the perverse incentives and opportunities they create. Clear rules in such areas do not result in the regulation of the market in ways intended by the regulators; instead, they create incentives for regulatory arbitrage strategies unanticipated by regulators. Accordingly, I recommend that the Commissions employ broad and vaguely-worded standards in this area, rather than more precise rules. Market participants will claim that vague standards will stifle innovation in these markets, but if the vague standards are coupled with liberal margin requirements for certain low-risk offsetting transactions, the deterrence of any higher-risk transactions that by broad standards will not affect the liquidity of the security futures and cash stock markets.

Conclusion

I do not believe the Commissions' proposed margin requirements for security futures satisfy the CFMA's requirements to preserve market integrity and prevent

[34] Examples include tax regulations applicable to financial derivatives transactions (i.e., short-against-the-box), and net-capital rules that depend on credit ratings of structured transactions.

systemic risk. Neither do I believe the proposed requirements satisfy the statutory requirement (and Federal Reserve Board's concern) regarding comparability with current margin requirements for options. In general, I recommend that the Commissions seek the advice of the Federal Reserve Board regarding these requirements and that the agencies work together to develop consistent margin rules applicable to all financial transactions. With respect to the specific rules articulated in the Release, if the Commissions decide to go forward with the proposal at this time, I recommend that (1) the initial and maintenance margin requirements applicable to directional trades in security futures be set at the same level as the margin requirements applicable to stocks, and (2) that the Examples in the proposed rules be reworked into a broader, categorical approach so that the margin requirements of low-risk offsetting positions can be lowered substantially, based on the economic characteristics of the position. I thank the Commissions for giving me the opportunity to comment on these rules.