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SWAPS: MARGINING AND ACCOUNTING CONSIDERATIONS

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Due in large part to regulatory pressures, an increasing number of swap transactions undertaken by financial institutions have been – or will be – subject to margining requirements. Current industry practice is still evolving, but depending on exactly how these margining practices are implemented, different accounting treatments could follow.

The Case for Margining

In any discussion of margining, it's useful to first distinguish between cleared swaps and non-cleared swaps. Cleared swaps are reported to clearing entities that apply well-defined and standardized margining practices that require posting of initial margin (i.e., collateral that may be in the form of cash or other qualifying assets) and variation margin that must be settled in cash, every day. Non-cleared swaps, in contrast, are bilateral contracts between two entities – often a swap dealer and an end user – where any margining practices would be carried out independently from a clearing entity.

Broadly speaking, over the next several years, virtually all financial institutions will be subject to mandatory margining for most, if not all, of their derivative positions. The rationale is that margining serves to eliminate credit risk as a function of losses being collateralized or settled in cash. Thus, the process assures that winners get paid. These margin adjustments could be stipulated with specific frequencies (e.g., weekly or daily) and/or when threshold valuation markers are breached.

Cash v. Non-cash Margin

The form of the margin is critical. Specifically, it's important to distinguish between cash and non-cash margin. In regulated futures markets, where the most well-established margining practices

have long precedent, both cash and selected non-cash securities are permissible for initial margin, but variation margin settlements must be satisfied exclusively in cash. Futures market practice further expressly distinguishes initial margin from variation margin, designating the former as collateral, while the latter is a bona fide settlement against the futures position.

For example, with an initial margin requirement of \$1,000, a futures market participant would put up the \$1,000 in cash or in securities at the start of the trade. This initial margin would be used only if the losing party failed to meet its variation margin obligation. In most cases, however, where variation margin adjustments occur as prescribed, this original margin would remain untouched until the trade is terminated, at which point the initial margin would be returned to the posting party.

To illustrate, let's say Trader A enters a long futures position at a price of \$50 per unit, and at the end of the day the closing futures price reaches \$51. In this instance, Trader A would receive a variation settlement of \$1 times the number of units per contract (the contract multiplier). It should be clear that the opposing trader (Trader B) would be the loser in this transaction, such that Trader B would be required to pay that same variation margin amount. These types of cash flows are settled at the exchange clearing house at or before the start of trading on the following business day.

In fact, in the futures environment, individual traders don't deal directly with the clearing house. Instead, all traders are represented by clearing members and futures commission merchants (FCMs) who act as the traders' agents – both as execution agents and

as cash flow intermediaries. Thus, subsequent to settlements between clearing member firms and the clearing house, a parallel settlement between the trader and his or her FCM and then the FCM and the clearing member would be performed (note that clearing members and FCMs may be either distinct entities or the same company performing distinct functions). Initial margin amounts are intended to cover the credit risk associated with FCMs or clearing firms paying out their customers' variation margin obligations prior to receiving reimbursement from their customers.

Under this process for futures contracts, variation margin assures that gains and losses will be settled every day, such that the value of the futures contract effectively resets to zero with each variation margin settlement. These aggregated gains or losses are considered to be unrealized until the contract is liquidated, at which point all unrealized gains or losses are redefined as realized. This terminology obscures the fact that unrealized gains or losses results are "real" in the sense that the money that moves from the loser to the winner does so without restriction – that is, any funds in excess of the initial margin requirement can be redeemed from the FCM and used for any purpose.

Contrast this margining process with one that allows for all margin adjustments to be satisfied with non-cash collateral. The trade would still involve an initial margin, but subsequent margin adjustments would be made periodically – up or down – as position values change, and securities (i.e., non-cash) may be used for this purpose. Ultimately, all collateral posted would be returned to the posting party following the termination of the contract.

Margining for Swaps

With the evolution of clearing facilities designed to handle swaps and other derivatives, a margining practice has evolved that mimics that of futures margining, with a twist. In this arena, (a) the initial margin obligation can still be satisfied with cash or securities, (b) variation margin requires a cash settlement and (c) variation margin is settled no less frequently than daily. The twist is that an extra cash flow adjustment is added into the mix – the price adjustment amount or price adjustment alignment (PAA), formerly termed the price adjustment interest (PAI).

What is the rationale behind the PAA? Prior to the advent of cleared swaps, when bilateral swaps operated with an International Swap Dealers Association (ISDA) credit support annex that required non-cash collateral adjustments, whichever party posted collateral still enjoyed the earnings that the collateral generated (e.g., dividends or accrued interest). In other words, posting collateral is purely a custodial issue, but it doesn't alter the security's ownership. Thus, it should be clear that a key difference between posting cash collateral and non-cash collateral is that, unless otherwise compensated, those posting cash give up the earning potential from that cash, while those posting non-cash collateral get to keep the associated incremental earnings. The PAA adjustment compensates for this difference – and thus strives to equalize the two practices – by returning an amount to the losing party (i.e., the party that pays the variation margin) roughly equal to this incremental income that would otherwise have been earned on the cash settlement.

Under existing and proposed margining rules, a single net settlement amount is calculated daily by the clearing entity, composed of the PAA netted from the variation margin. While these combined values will typically be settled with a single cash flow, if one wants to evaluate gains or losses of derivatives under different margining regimes, these two components should be differentiated. Put another way, the PAA component of an aggregate gain or loss associated with any derivatives position would more appropriately be considered to be other interest income (or other interest expense), as opposed to a component of the derivative's gain or loss.

Different Accounting Approaches

Unfortunately, at this point, accounting practices are less than scrupulous in distinguishing between these two different margining orientations – variation margin as a settlement or variation margin as a type of collateral. While some entities account for variation margin as collateral and others account for it as settlement against derivatives values, the different treatment seems to be largely independent of underlying economics.

In fact, these two orientations foster distinct balance sheet presentations. When variation

margin is treated as a settlement, gains or losses from derivatives are entirely reflected in the trading entity's cash balance position, and simultaneously the derivatives carrying value reverts to a zero balance with each variation settlement. On the other hand, when financial reporters treat variation margin as collateral, adjustments to the value of posted collateral have no effect on the carrying value of the derivative.

Although both of these methods are widely practiced, the underlying economics should be the key to determining the proper approach – the critical factor should be whether cash is transferred to the winning party with or without restrictions. If those funds are available to be spent or used by the winning party, treating it as anything other than a settlement (i.e., treating it as a collateral adjustment) is frankly at odds with reality. Unlike traditional collateral, which is expected to be returned, the return of unrestricted cash settlements would be predicated upon a price reversal for the derivative in question – it could happen, but it certainly shouldn't be expected.

Consider a case where cash variation margin settlements are treated as collateral. If the position generates a gain of \$100 during the first accounting period – such that the entity receives \$100 of cash designated as collateral – this receipt of cash must be journalized where the counter journal entity would be a payable. Assuming the position is liquidated in the next accounting period with no further value change, both the derivative position and the payable would have to be reversed. Thus, the associated journal entries (assuming no hedge accounting) would follow as in the table below.

Under this approach, at the end of the first period, the balance sheet shows assets consisting of (a) cash and (b) derivatives – both valued at \$100 – while liabilities include a \$100 payable account, and recognized earnings for the period are \$100. In the second period, with no further market value changes, no further income is realized, and both the derivative and the cash collateral are treated as if they were cash settled, but the associated cash amounts are equal and opposite, such that no cash movement actually happens in the second period.

| | | |
|--|-------|-------|
| Cash | \$100 | |
| Collateral payable | | \$100 |
| <i>Cash collateral settled in period 1</i> | | |

| | | |
|---|-------|-------|
| Derivative | \$100 | |
| Gain on Derivative | | \$100 |
| <i>True-up derivative at period 1 end</i> | | |

| | | |
|---|-------|-------|
| Cash | \$100 | |
| Derivative | | \$100 |
| <i>Close-out derivative in period 2</i> | | |

| | | |
|--------------------|-------|-------|
| Collateral payable | \$100 | |
| Cash | | \$100 |

On the other hand, if variation margin is treated as a settlement, the following journal entries would apply:

| | | |
|---|-------|-------|
| Cash | \$100 | |
| Derivative | | \$100 |
| <i>Variation margin during period 1</i> | | |

| | | |
|---|-------|-------|
| Derivative | \$100 | |
| Gain on Derivative | | \$100 |
| <i>True-up derivative at period 1 end</i> | | |

Under this second orientation, there are no derivative-related non-cash items on the balance sheet at the end of the first period or after. That is, cash is the only asset, but the same \$100 of earnings arises in the first period. To be clear, the two methods yield identical reported earnings amounts, but the balance sheet presentations are different.

Note that the above journal entries ignore the treatment of the PAA amounts. When PAA is received, cash should be debited and (most likely) other interest income should be credited; when PAA is paid, other interest expense should be debited and cash should be credited.

Conclusion

As noted, both of these accounting methods appear to have been sanctioned by audit firms, but the indiscriminate application of the two methods is unjustified, as the “cash collateral” label is a source of confusion. The proper accounting should follow from whether cash settlements are exchanged between the derivative counterparties and, if so, whether those cash amounts are restricted in any

way. Unrestricted cash settlements shouldn't be treated the same way collateral is treated. Posting collateral is a custodial concern that generally has no impact on a firm's balance sheet. Moreover, collateral is typically deposited with an independent party, and is something that is expected to be returned in full, assuming all associated cash flow obligations are satisfied. If a cash settlement is not handled in this restricted way, it shouldn't be considered to be collateral, making the term “cash collateral” inappropriate.

Whether reporting entities or audit firms come to respect these economic distinctions is yet to be seen. If no consensus develops, however, resulting balance sheet presentations will be inconsistent, making it difficult to compare assorted financial ratios across institutions. When financial institutions issue debt and add an equal volume of assets, the net worth is unchanged, but such an action adds to the riskiness of the enterprise (assuming those balance sheet items are real). In the context of derivatives, when derivative positions are cash settled, credit risks pertaining to those positions evaporate. Therefore, to the extent that financial ratios fail to respect this economic reality, the associated credit risks and leverage calculations will be misstated.

Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the official policy or position of the Financial Managers Society.

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