Margin for Uncleared OTC Derivatives - A Quick Summary

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Introduction

Most regular users of OTC derivatives have become accustomed to Credit Support Annexes requiring bilateral exchanges of variation margin on their portfolios with negotiated levels for minimum transfer amounts, frequency, dispute procedures. Next year this will effectively become mandatory for major users of the products and there will be a phasing in of mandatory variation and initial margin which will be a significant change for many market participants. The BIS/ IOSCO have proposed a regime and all the major developed world regulators have agreed to implement rules that will be very closely based on the BIS/ IOSCO proposals.

The main impact will be fourfold;

1) Bilateral CSAs will disappear as the regulations make their terms mandatory.
2) The pledging of initial margin will effectively drain cash from participants and make OTCs less efficient and increase the pressure to clear vanilla contracts as the margin call should be lower on a cleared contract.[1]
3) The frequency of cash and other asset transfers will rise incentivising participants to manage margin more carefully and invest in technology to facilitate tracking and cash/ asset transfers.
4) Many financial entities that are minor users of OTC derivatives will now aggressively novate and unwind uncleared positions to remain below the €8 billion notional level (see below).

Whilst variation margin is now customary, initial margin has only been seen where the customer does not have a strong credit score. It has been argued that with all the new higher capital requirements this 2009 G20 commitment was no longer needed but the BIS/ ISOCO are pointing out that capital requirements basically ensure that the crisis survivors can weather the storm while margin requirements mean that defaulting parties provide the resources to reduce the stress on the survivors.

This paper analyses the BIS/ IOSCO proposal. We can see already that the major regulators will be inserting minor deviations as they adopt these. Obviously there is serious lobbying being performed as we speak. For example the European pension industry has successfully delayed the application of mandatory OTC clearing to them by a number of years and is no doubt looking for similar relief here.

Who is affected?

All financial entities and any non-financial entities who are considered globally systemically important (almost no one now that GE will divest GE Capital).

[1] CCPs typically model initial margin on a close out window of five to seven days while the BIS/ IOSCO is recommending ten days which will give a higher number.

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Who is exempt?

The usual suspects of sovereigns, central banks, multilateral development banks and of course the BIS itself are exempt from the rules, although they may well find that they prefer to voluntarily agree to the same variation margin terms simply to avoid creating asymmetric cashflows for market makers and getting poorer pricing from market makers who will want compensation for the additional liquidity risk they will have to take.

Are minor participants exempt?

Affected parties whose consolidated group wide notional of uncleared derivatives is less than €8 billion are exempt while their notionals stay below this threshold.

Are all products included?

No FX forwards and physically settled FX swaps are exempt as the bulk of the market settles them through CLS and so their systemic risk is much reduced.

What is the frequency of the process?

Daily.

Do very small transfers have to be made?

Only the excess of the initial margin amount above €50 million has to be called. Any transfer below €500k do not have to be made. Obviously variation margin will be a net movement between the counterparties but initial margin cannot be netted, it must be paid gross although it can be netted with the net variation margin. I suspect that given the different segregation rules (see below) most participants may find it simpler to keep the two separate.

How is the margin calculated?

The variation margin is simply the mark to market value of the contract. The initial margin may be calculated using an internal model. The internal model can work across a portfolio of contracts in the same financial product family provided they have full legal netting but must follow the following framework:

- A single tailed distribution with a 99% confidence level
- Modelling a ten day close out period
- Using a five year history including a period of significant stress

The financial product families within which netting is permitted are:

- Currency and interest rates
- Equities
- Commodities
- Credit

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Netting across different families is not allowed. The models should be pre-approved by regulators and parties will need to have robust reconciliation and dispute resolution procedures particularly if one party is calling initial margin on a model basis while the other does not have such facilities. Historically, getting brand new models approved by a regulator has been a lengthy process involving providing significant amounts of documentation and testing. The major firms have large libraries of models approved for capital adequacy purposes so it should be fairly straight forward for them to get additional approval for this purpose. But any firm looking to get a completely new approval should not underestimate the rigour of the task and also bear in mind that most regulator approval teams are not particularly large and could easily get overwhelmed if they receive a large number of applications in a short period.

What does an institution without an internal model do?

There is a standardised gross margin table structure based on the notional and the product and maturity as follows:

Asset Class	Derivative duration (years)	Initial margin (% of notional)
Credit	0-2	2
Credit	2-5	5
Credit	>5	10
Commodity	all	15
Equity	all	15
FX	all	6
Interest	0-2	1
Interest	2-5	2
Interest	>5	4
Other	all	15

Limited netting of assets and liabilities within the same asset families can be applied using the following formula;

Net initial margin = 0.4 x Gross total initial margin +
0.6 x Gross total initial margin x (net replacement cost of the portfolio/
gross replacement cost of the portfolio)

The net replacement cost is the larger of the current net value of the portfolio and zero (zero would apply where the net portfolio is a liability).

What can be used to satisfy margin calls?

- Cash
- High quality government and central bank issued securities
- High quality corporate bonds
- High quality covered bonds
- Equities which are members of major stock indices
- Gold

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Are there haircuts applied to the assets used to satisfy margin calls?

Yes. The BIS/ IOSCO provide a standard table but also say that regulators may permit firms to use internal models to model this risk and apply their own haircuts. The BIS/ IOSCO haircuts are as follows;

Asset	Residual maturity (years)	Haircut reduction (% of market value)
Cash	NA	0
High quality government and central bank securities	<1	0.5
High quality government and central bank securities	1-5	2
High quality government and central bank securities	>5	4
High quality corporate and covered bonds	<1	1
High quality corporate and covered bonds	1-5	4
High quality corporate and covered bonds	>5	8
Equities and Gold	NA	15
Where currency of asset differs from derivative there is an additional haircut	NA	8

Can margin be re-hypothecated?

Variation margin can be rehypothecated but initial margin must be segregated so that it is remote from the bankruptcy of the provider but easily released in this eventuality to the recipient. Regimes may allow one step of rehypothecation for specifically identified margin and with the agreement of the provider. Such rehypothecated assets must be kept separate from the recipient's assets and easily identifiable. (The EU has already indicated that they are not planning to adopt this as they believe the benefits of such arrangements are small and not worth the effort.)

Do trades between affiliates have to be margined?

Whilst there is some risk benefits from inter-group margining there is also an increased liquidity risk to the group. BIS/ IOSCO makes no firm recommendation here so there is a strong chance that regional inconsistencies will arise.

How will the rules be phased in?

The BIS/ IOSCO have set some size thresholds for the introduction of both variation and initial margin. When both parties to a trade are above the relevant threshold then margin must be exchanged. The rule applies to new trades only. BIS/ IOSCO are not proposing any backloading, to apply the rule to existing trades. The thresholds are as follows;

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Variation Margin	Date
Aggregate notional[1] > €3 trillion	1 September 2016
Everyone covered by the rule	1 March 2017

Initial Margin	Date
Aggregate notional > €3 trillion	1 September 2016
Aggregate notional > €2.25 trillion	1 September 2017
Aggregate notional > €1.5 trillion	1 September 2018
Aggregate notional > €0.75 trillion	1 September 2019
Aggregate notional > €8 billion	1 September 2020

How will cross border business be affected?

The BIS/ IOSCO expect regulators to harmonise their rules and at a high level this is happening. At a lower level there will be differences but I doubt that the EU or US are ready to accept any compromise where a firm they regulate does not apply their rule. This will probably lead to a situation where trades between firms under different regulators have to apply slightly different rules, for example the EU will set its monetary levels in Euros while the US will use US Dollars. Firms such as swap dealers based in the EU will probably have to apply the most conservative provision of each rule. My pessimism here is based on the recent EU-US meetings on futures initial margin where transatlantic differences on netting and close out periods led to an agreement to keep talking but no sign that either side was ready to change their position.

What will be the impact?

Uncleared OTC derivatives will become more expensive as providers will have to cover both the funding costs of the margin and the operational costs of margin transfer and segregation. Suppliers of segregated accounts (the major banks) will gain business. The current high rate of novation and assignment of contracts will continue as firms seek to reduce the number of bilateral open margin balances. Historically many firms did charge for the occasional novation request. This has changed in recent years as the volume has increased. I suspect that over time the price will mature as firms realise that overcharging leads them exposed to retaliation in the future. Equally I expect more novation to become automated to reduce its operational cost.

When the BIS/ IOSCO first proposed these rules some industry groups predicted a major liquidity crisis. This looks highly unlikely with quantitative easing having injected significant cash into many parts of the global economy and with many institutions sitting on large cash balances.

Firms that are in regimes not subject to mandatory clearing today (like the EU) may decide to stomach the high costs of OTC clearing to gain the margin benefits. I think there will also be some careful limitation of trading when firms find their initial margin calculation with a counterparty approaches the €50 million threshold and similar behaviour to stay under the €8 billion threshold.

Many conservative buy-side firms that hold financial assets will traditionally have been reluctant to enter into lending of pledging of these assets. They may now change this to avoid having to

[1] The aggregate notional is determined by taking the average of the month end notionals for March, April and May of that year.

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provide cash. Also many buy-side firms have avoided significant investment in model valuation resources and relied up their sell-side supplier to provide information. There are initiatives to produce generic industry models for all parties to use. The provision of a fully tested signed off regulator approved model with historic data support may become an increasingly useful part of the tools the large firms supply to their clients. This industry is still relatively immature but I think there are parallels with global aviation where a "standard airworthiness certificate" permits a plane to fly in a number of countries. The use and control of financial models could be greatly improved if a similar regime could be introduced, but I suspect that is many years away.

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