

MEMORANDUM

TO: File No. S7-34-10

FROM: Natasha Cowen

RE: Materials from Allan D. Grody, Financial InterGroup Advisors

DATE: April 27, 2011

On April 20, 2011, Allan D. Grody from Financial InterGroup Advisors and Financial InterGroup Holdings Ltd. has asked Natasha Cowen from the Division of Trading and Markets to post the following materials as comments on the Regulation SBSR – Reporting and Dissemination of Security-Based Swap Information (File no. S7-34-10).

Systemic Vulnerabilities and Systemic Risk Analysis

Allan D. Grody

The financial services industry today consists of monstrously complex global financial institutions ... systemically important ... too big to fail...even too complex to manage! Regulators are focused on observing systemic risk in these giant, global institutions. Systemic risk analysis is a new discipline in its infancy. We have barely figured out the science of individual enterprise risk management when we now have placed another burden on our regulators through the Dodd-Frank legislation and soon through the European Communities central bank. This is the burden of observing the buildup of risk that has the potential of cascading into the global contagion of systemic risk.

The newly enacted Dodd-Frank Act (DFA) charters a new US Treasury Office of Financial Research (OFR) to provide input to the Financial Stability Oversight Council (FSOC) on the vulnerability of the US economy to systemic threats.

The purpose of the current set of rule making proposals around this issue calls for standards to be developed by US regulators to provide the underlying data structure and data standards for reporting position and transaction data to the OFR for analyzing risk exposures building up to where they can trigger the contagion of systemic risk.

Most recently the OFR posted its notice of rulemaking at http://www.treasury.gov/initiatives/Documents/OFR-LEI_Policy_Statement-FINAL.PDF on Legal Entity Identification (LEI). Similar notices of rule making were provided by the SEC <http://sec.gov/rules/proposed/2010/34-63446.pdf> the CFTC <http://www.cftc.gov/stellent/groups/public/@otherif/documents/ifdocs/federalregister112210.pdf> and by staff of the Federal Reserve and others <http://ssrn.com/abstract=1723298> prescribing initial principles for such as business entity identifiers, Swaps uniform identity codes, and a myriad of unique product identifiers and transaction codes.

Collectively these releases makes numerous references to preferences for universal, unique and unambiguous identifiers and data standards; refers to an industry consensus process in deciding on such reference data; speaks about international recognized standards bodies taking on this job as a not-for-profit public good; and discusses the possibility of financial firms eliminating the use of multiple proprietary reference systems and moving to a single, widely accepted global system.

It is understood that without a global view of the underlying positions, aggregated through common identifiers, systemic threats cannot be detected. Systemic risk is a global phenomenon, and needs to be measured by multiple global regulators across multiple financial firms. However, US regulators cannot compel other sovereign jurisdictions to comply. Systemic risk cannot be dealt with from regulatory silos. The OFR's ambition and hope is to implement this regime across the globe through cooperating regulatory bodies. Here its ambitions might best be accommodated through the G-20.

The G-20's Financial Stability Board has already been assigned the global responsibility of creating a systemic risk analysis framework not unlike the Bank for International Settlements (BIS) oversight of the Basel global capital standard. Basel, now in its third transformation with yet to be fixed imperfections is a governance model that regulators need to emulate for global data standards. The Basel regime respects sovereign regulation while providing the framework for common standards implemented by each sovereign regulator. It may be the best model for transcending regulatory silos.

BIS in a report earlier this year recognized that relatively simple aggregate statistics, used properly, can help to gauge the build-up of systemic risks nationally and globally. However it nevertheless concludes that *“to improve our understanding, to fully exploit the potential of the various approaches used to conduct systemic risk analysis, we need more. We need consistent and comparable data across institutions. We need information on the level of common exposures. And we need data on inter-linkages.”*¹

The global financial industry does not have unique, unambiguous and universal computer usable identifiers. This results inevitably in multiple versions of what needs to be identical information. The results are predictable - transactions that need to match for payment and settlement, and transactions conducted by the same counterparty in the same products that need to be aggregated into positions do not match nor do they get aggregated properly

Why do we need global solutions to this data identification problem – because systemically important financial institutions are global... transcending sovereign governments reach, local regulators rules, even regional compacts oversight. And we are now realizing that we have no way of “seeing” the same counterparty’s risk exposure in the different financial firms that each receives loans from, or enters into Swaps contracts with, or sets risk exposure limits for. Actually, as it became abundantly clear from the failure of Lehman Brothers, we could not even understand the pieces of the Lehman firm each financial institution was dealing with, nor understand in what capacity they were doing business with it, nor be able to aggregate the risk exposure each had had as individual institutions to Lehman’s failure. What were regulators thinking when they examined these institutions? What about their auditors? Ask the bankruptcy lawyers and forensic accountants what a mess it was...and is. Accepting best practices when such practices were not even close to being a reasonable standard is now being addressed. New standards and new methods of systemic risk analysis are on the way.

In the US, the FSOC will install a new systemic risk oversight regime composed of the heads of ten existing and new government agencies including the SEC, CFTC, Treasury, Federal Reserve, and FDIC. A new office, within the Treasury, the OFR will be detailed to the task with a newly appointed Director.

The Director of the OFR, not yet appointed, is required to testify annually to Congress on the activities of the OFR with a focus on an assessment of systemic risk. This testimony can then be used by policy makers and federal agencies to take risk mitigating actions, including breaking up too-big-to-fail financial firms. Importantly no government officer or agency has the right to review the Directors testimony prior to its submission. He or she will talk directly to the people, not only in the US but around the globe. Will the Director have the courage to let the world know there is a financial institution that needs to be broken up? More importantly will this King Solomon have the courage and the conviction to tell the world that everything is OK?

The Director is appointed to a six-year term by the President, with the advice and consent of the Senate. The Director has a non-voting seat on the FSOC. The OFR will be funded initially by the Treasury and thereafter will set its own budget. The budget will primarily be funded from fees assessed on large banks and non-bank financial companies supervised by the Federal Reserve.

The OFR is empowered to provide data to Council members by standardizing the types and formats of data to be collected from all financial companies, not just those subject to the systemic risk regime. The OFR has subpoena power to collect this data. The data being requested will find its way into the OFRs newly created Data Center through a variety of yet to be developed automated means. The data will contain an unprecedented level of granular information including information on positions, transactions, valuation methods and identities of counterparties. This level of granularity is required to make the necessary calculations for analyzing systemic risk. This data had previously been only available periodically to on site examiners of individual financial institutions.

¹ Cecchetti, Stephen G., Fender, Ingo, McGuire, Patrick, Toward a global risk map, May 2010, <http://www.bis.org/publ/work309.pdf>

The granularity and comprehensiveness of the data has neither been requested before by any government body overseeing financial institutions nor concentrated within one government agency on such a scale and frequency. The OFR will need a variety of analytical tools, yet to be developed, to sift through unprecedented quantities of data pouring in from financial institutions. A myriad of global economic, market and company specific data will also have to be sourced from hundreds of data vendors and government sources. Policies for computing systemic risk exposures will need to be set. For example, policies will need to be developed on the tolerances for the amount of systemic risk that should be allowed. Dynamic scenarios must be stress tested against the collected data for catastrophic events associated with everything imaginable from oil spills to weather to war. Volatility, liquidity, capital and leverage gauges must be calibrated and also stress tested around these scenarios.

Another significant issue in the quest to understand and mitigate systemic risk has historically been pursued in the ever expanding globalized and electronic trade, payment, clearance and settlement systems of the capital, contract and currency markets. Electronic transactions entered into must wait a period of time before they are finalized (actual transfer of the electronic representation of the assets and payment takes place). Because data standards are not uniform or universal a period of time is usually required to reconcile differences. This period of time varies depending upon the financial product traded, the region or country traded within, and the domicile of the counterparties that traverse different market closing time zones.

Failures of financial institutions between the trade-date and the settlement date, specific financial transactions that are unresolved at settlement-date, and fraudulent trades, have all occurred due to the lack of timeliness of settlement. All financial transaction markets have a goal of shortening the settlement cycles with a vision toward simultaneous real-time trading, payment and settlement. It is thus hoped that by correcting the underlying data structures and setting universal data identification standards this systemic risk issue will also be resolved.

The DFA also proposes to establish central counterparties and electronic trading of Swaps and other previously over-the-counter derivatives. With transactions now concentrated in this way the inevitable question arises, are those entities now too-big-to-fail? They are, but they never have failed in the over 100 years they have been the mainstay of systemic risk management between financial institutions. There have been a few that had experienced events that caused their business to be transferred to another facility or to be reconstituted under better capital guarantees, but never a collapse of systemic concern.²

Central counterparties provide a transparent and easily monitored risk regime. Will it be a better guarantee than the too-big-to-fail concept of governments? Will it work better than the living will doctrine that regulators are imposing on systemically important financial institutions to assist in their breakup? With a central counterparty, the entire financial community, with a vested interest to protect each other, provides the guarantee, and only shoulders the risk of a single day's exposure at most. In the government's bailout or breakup, ultimately the disinterested taxpayers are on the hook.

In conclusion, at some early point in this debate on methods of systemic risk analysis it is necessary to encourage industry led solutions as well as make the appropriate connections to organizations such as the G-20's Financial Stability Board. This Board should be encouraged to oversee data standards in addition to its already existing oversight of capital standards thereby allowing it to carry out its most recent mandate of overseeing systemic risk analysis globally.

The Author (in the US at 917 414 3608, agrody@FinancialinterGroup.com)

Mr. Grody writes frequently on the interaction of data management and risk management.

² Hills, B., Rule, D., Parkinson, S., Young, C., Bank of England; *Central Counterparty Clearing*; Financial Stability Review: June 1999, pages 129-130.

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Central counterparties — New uses for a century-old market mechanism

by
Allan D. Grody

Mr. Grody is the founder and president of Financial InterGroup Holdings Ltd, a financial industry joint-venture development company. He has had hands-on experience in multiple sectors of the financial industry and has been consulting domestically and internationally on issues related to financial institutions' global strategies, capital and contract market restructuring, industry-wide financial business reorientation, information systems, evolving communications infrastructures, and risk management systems. Allan has been an expert witness for investment companies on shareholder issues; and provided expert witness testimony in a landmark patent case related to the electronic trading of financial instruments. He is currently engaged in developing the Central Counterparty for Data Management, an industry-initiated effort of the Global Financial Services Data and Standards Alliance.

In earlier careers Allan was in the financial services industry and later was the founder and Partner-in-charge of Coopers & Lybrand's (now PWC's) Financial Services Consulting Practice. He also founded and taught the only graduate-level Risk Management Systems course at NYU's Stern Graduate School of Business. Allan is on the Editorial Board of the *Journal of Risk Management in Financial Institutions* and the author/co-author of many trade articles and academic journal papers. He writes frequently on the intersecting influences of data management and risk management.

Financial InterGroup, 169 East 69th Street — 18th floor, New York, NY 10021, USA
Tel: +1 917 414 3608; E-mail: agrody@financialintergroup.com

Abstract Central counterparties have been the preferred mechanisms used to share the risk of funding financial instruments between financial institutions and between financial institutions and their customers. With the inevitable next crisis looming, regulators have turned to a century-old concept to do what no government wants to do — guarantee that enough capital will be there the next time markets collapse. To do this regulators and industry members are embedding central counterparty mechanisms into all manner of interconnected risk: securities lending; the repo markets; and the swaps, CDS and other OTC derivatives markets. Will it be a better guarantee than the too-big-to-fail concept of governments? Will it work better than the living will doctrine that regulators are imposing on systemically important financial institutions to assist in their breakup? With more risk now concentrated in central counterparties the inevitable question arises, are those entities now too-big-to-fail? This paper explores this question and suggests that innovations are to be expected in managing the risk of too-big-to-fail central counterparties.

Keywords: *central counterparty, risk management, too-big-to-fail, derivatives, payment and settlement, financial guarantee*

A central counterparty does not remove credit risk from a financial market; rather it redistributes risk, replacing a firm's exposure to multiple parties' individual bilateral credit risk with the standard credit risk of the central counterparty. What it does provide is a better buffer against systemic risk, keeping government, from bailing out industry participants. It can also open up a world of possibilities for providing needed capital when the next financial crisis is approaching.

Mutual industry-wide risk mitigation through the sharing of risk in the payment and settlement systems has long been a pillar of the global financial infrastructure. Central counterparties have been the preferred mechanisms used to transfer funds and financial instruments between financial institutions and between financial institutions and their customers through payment and settlement systems.

Generally, the term central counterparty is used to define a set of procedures used by financial institutions to confirm and support the financial obligations of all bilateral counterparties conducting transactions in the capital, contract or currency markets. Central counterparties permit payment for these obligations, and bookkeeping for settling corresponding securities. Central counterparties are generally organised as mutual risk-sharing facilities with obligations by the largest financial institutions to support each other in their potential failure to meet their obligations to make payment and/or deliver securities against payment. They require cash collateral to be maintained against the obligations they have assumed on behalf of their clients or themselves. They vary this collateral on a daily basis based upon the central counterparty's assessment of the volatility of the markets. Thus, the risk of the central counterparty is to a single day's market move affecting the net position values held by all members. On a single business day, US central counterparties settle transactions valued at over US\$13 trillion.

What should be of great interest to those in the risk management profession is the vulnerability to systemic risk shared by all financial institutions. Here the vulnerability of the intertwined financial system has been a subject of much debate in the context of modern automated financial markets, dating back to October 1987 when the US market infrastructure suffered its first structural collapse. Back then the US stock, futures and options markets were convulsed by a cascade of sell orders prompted by a computer model that blindly adhered to its pre-programmed algorithms.

The lesson learned then was that the equity markets were tightly intertwined with the options and futures markets — trouble in one quickly cascaded into the other. The May 6th flash crash was again a vivid reminder of more vulnerability of automated and intertwined markets, this time futures market trading algorithms took down the equity markets to nearly a 1000-point drop of the Dow Averages in just 20 minutes before recovering.

The lesson of today's credit crunch is the same — the models went awry, defaults began and the intertwined debt markets froze up as distress in one market cascaded into other segments.

With the inevitable next crisis looming, regulators have turned to a century-old concept to do what no government wants to do — guarantee that enough capital will be there the next time markets collapse. To do this regulators and industry members are embedding central counterparty mechanisms into all manner of interconnected risk: securities lending; the repo markets; and the swaps, CDS and other OTC derivatives markets.

What makes central counterparties so enduring is that they have rarely failed, noting only three near-failures in its century-long life. It was only the first, in 1974¹ that members of the Paris Sugar market absorbed unprecedented losses in its clearing house before being rapidly absorbed into the London Sugar Terminal market where trades then cleared through the International Commodity Clearing House's (ICCH's) central counterparty facilities. In 1983 the Kuala Lumpur Commodity Clearing House, and in 1987 the Hong Kong Futures Guarantee Corporation, did not have sufficient guarantee funds to make members who sustained losses from other members whole. Both markets were reconstituted under more stringent clearing house guarantees.

In discussing the financial crisis and the reasons for bailing out Bear Stearns, US regulators all voiced concern about the potential of the financial markets collapsing. It was hardly noticed that, while choosing JP Morgan Chase (JPMC) for its vast capital reserves to rescue Bear Stearns that JPMC was also a member of most of the world's central counterparties. It thus could step in rather seamlessly as the guarantor of Bear Stearns' obligations simply by assuming their customer positions and continuing the daily margin variation payments.

Until the end of the nineteenth century market place transactions were carried out bilaterally, that is, between two parties, first through barter transactions and then through representative collateral, such as banknotes, warehouse receipts, warrants, currencies, contracts and the like. In the USA, in the closing decade of the nineteenth century, the Minneapolis Grain Exchange formed the first payment and settlement 'clearing association', which permitted multi-party transactions first to be netted, then novated through means of a central counterparty. This payment and settlement mechanism was referred to as a 'clearing house'.

Leading up to this innovation was the progress in creating transaction standards for the underlying collateral, in this case grain, such as size of contracts, grade of grain, delivery location and delivery date. Each party to a transaction would submit the details as to number of bushels, agreed price, date for delivery and with whom they transacted the agreement with (the counterparty) to the clearing house. The clearing house would match the transaction to the other side, that is, the identical but mirror image of the transaction (the buyer's transaction details matched to the seller's details). When judged

¹ Hills, B., Rule, D., Parkinson, S., Young, C., Bank of England; *Central Counterparty Clearing*, Financial Stability Review: June 1999, pages 129-130.

as matched, the clearing house would pool the transactions, netting the money owed to individual counterparties and the net number of contracts each retained to fulfill, but in an obligation to the clearing house, no longer to each other. The original parties to the transaction would be separated from the fulfillment of the contract, with the clearing house now standing in their place. Thus, mutual risk sharing became part of the financial transaction landscape, with each member standing up to guarantee the collective interests of all members and, in turn, all of their member's clients.

To this day, this same process is carried out on most organised financial transaction markets, although in a much speedier and more automated manner. Here transactions are standardised — parties trade and agree on price and/or quantity and submit it to a matching process, after which it is netted with obligations of net quantity and value determined between counterparties and, where central counterparties exist, novated and settled.

Clearing houses require minimum capital to be posted for each transaction at the initial acceptance of a trade, then mark-to-market the positions daily, even intraday, and in volatile markets more often than that. The daily settlement of these trades allows for the earliest warning of failure to pay with enough capital in reserve, built up by multiple margin calls throughout the life of the contract to buttress a minimum number of days of the severest market declines. When the clearing house declares a member firm overdue on its daily settlement commitments, the defaulter's positions can be transferred to another willing clearing member's account.

The speedy transfer of positions of the collapsed Refco and Bear Stearns without loss to clients and clearing members is a testament to the success of this method of risk-managing contract markets. The industry comes together to share risk in a clearing house which is better than placing the burden on the taxpayer.

Where no formal matching process is organised, or no standardisation of delivery is prescribed, two counterparties must verify the details of the trade and await the fulfillment of same, such as when a ship container is unloaded and its contents verified by an agent against a shipping manifest. In this example and in other non-centralised financial markets such as trade finance, OTC derivatives or the reinsurance markets, standards in the form of standard bills of lading, International Swaps and Derivatives Association contract definitions and the like are prerequisites to an organised, smoothly functioning market.

With more rigorous transaction standards being mandated for swaps and other OTC derivatives, and with regulatory compulsion a driving force, it was inevitable that this day would arrive to apply the Central Counterparty concept to these markets. Also where a clearing house acts as a central counterparty to multi-asset markets, such as futures and swaps, the benefit of netting of credit risk may be extended to market risk. This creates the possibility of collateral offsets where firms are long in one market and short in another (ie a long position in a bond futures contract offset against a matching

short position in a repo). Regulatory capital and collateral should, therefore, be lower in central counterparties that operate multi-asset markets.

With more risk now concentrated in central counterparties the inevitable question arises, are those entities now too-big-to-fail? They are, but as previously described, they never do. Nevertheless, there are alternatives, especially as the central counterparty provides a transparent and easily monitored risk regime. Will it be a better guarantee than the too-big-to-fail concept of governments? Will it work better than the living will doctrine that regulators are imposing on systemically important financial institutions to assist in their breakup? With a central counterparty, the entire financial community, with a vested interest to protect each other, provides the guarantee, and only shoulders the risk of a single day's exposure at most. In the government's bailout or breakup, ultimately the disinterested taxpayers are on the hook.

Before a government-led bailout, the last resort of any collapsing financial system, it could well be that a government-led bailout fund, a too-big-to-fail fund, contingently funded by private capital, perhaps through drawdown commitments, could be applied as the first tranche of a guarantee fund. This would come into play only after the central counterparties' own calls on member capital and drawdowns of existing contingent commitments are exhausted and before the government intervened. With the experience of TARP funding and the ROI that those funds earned, it should be an attractive proposition for capital managers.

Such capital sources, in the form of hedge funds and private equity investors, endowments and pension funds, family offices and sovereign funds, may find it an attractive asset class to fund an investment that does not require actual funds to be locked up. It is, in effect, selling a call option to central counterparties, where the seller earns a return on capital, and is prepared to lend money at agreed to rates when called upon. This is the equivalent of catastrophic insurance, but not funded by the insurance industry, or a standby letter of credit, but not funded by the banking industry; but rather a contingent call funded by private pools of capital.

With a recent and successful history of deploying government funds in this way, it should not be too long before the quants start modelling the returns on such funds and the pricing of such options. A new systemic risk mitigation regime may well be poised to be born from the central counterparty model which is fast becoming the next new new thing, but built from a century-old market mechanism model.

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