

## COMMENTARY: We Need a Systemic Risk Overseer

**In order to avoid another disaster like the credit crisis of 2008, a financial market expert says we need to bring the markets together and use big data to get a better view of risk.**

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My overreaching observation is the absence of recognition of global forces at work in which sovereign regulators must carry out their regulatory mandates. Financial institutions and markets are global and know no sovereign boundaries. At the same time financial markets are globally integrated from a functional point of view but not from a regulatory or technical perspective. This has led not only to regulatory arbitrage but information arbitrage.

Regulatory arbitrage has always been with us, the consequence of different societies forming their own sub-cultures around lending institutions, markets and their regulations. However, there is now recognition of a new vision taking shape that markets and financial institutions need to be regulated with some consistency. The first instance of this was the first Basel initiative to standardize credit markets by establishing the amount of capital globally active banks need to retain. The observation that the weakest link in the chain will bring the entire chain down was its impetus. We are now in the third iteration of the Basel capital accords with recent consultative papers from them focused on supremacy of simplification over complexity, but importantly around data standardization and aggregation.

Toward this same end the G20 has given a mandate to its new creation, the Financial Stability Board (FSB) to 'stabilize the global economy' after the financial crisis of 2007 to 2008. To their credit one of the first initiatives they tackled was the Global Legal Entity Identification (LEI) project. This is to be a standards mechanism that would allow "fixing of the plumbing" of the global financial system. Another initiative, equally important is to create a consistent mechanism for implementing derivatives reform with a particular early emphasis on swaps regulation. Data standards and data aggregation has become of paramount importance here as well.

It was recognized by all that without a computer-readable global identification system for identifying participants in the financial supply chain, and eventually the instruments and contracts they trade in, no amount of automation would be effective for either risk management or trading on a global scale. In today's technology era information is available at light speed. Those with faster computers, networks and algorithms have an information advantage, what we call "information arbitrage."

In the U.S. regulatory silos prevent regulation from following what science now allows -- integration (or rather federation) of markets, risk controls and trading platforms. However, without a global view, risk controls, no matter how automated, will not prevent a systemic contagion from occurring again, whether it be brought on by errant trades or by capital depletion.

### **The Importance of SIFIs**

Systemically important financial Institutions, the ones defined in the new category of financial institution known as SIFIs have been placed at the forefront of global regulation by both the FSB and the US's Financial Stability Oversight Committee. We need SIFIs to lead us into a new era of cooperation before we let them loose on the old regime of competition. They collectively trade or process over three-quarters of the world's financial transactions. Regulators, in cooperation with these SIFIs must lead our financial markets toward a level playing field, this time not just within sovereign government or regional regulatory regimes, but within globally consistent regulations led by data standards -- for identification, for data tags, for risk analysis, and for prescribing trade input data and trade outputs.

The way to carry this out is through globally consistent and standard instrument and counterparty identifiers. With these we can aggregate positions across firms and financial infrastructure entities. This is neither done in a timely nor efficient way now. It should be done in the same real-time context as the risks that are being taken. This aggregation ability is missing because the underlying identifying data and valuation information are neither synchronized across a company's many businesses nor across the many businesses comprising the global financial industry.

Real-time risk management is becoming more of a possibility with the continued build-out of the Internet, a pervasive global network of almost unlimited bandwidth. Coupled to it are massively parallel, almost unlimited computing capabilities embraced through federated Big Data real-time in memory databases acting as a single processing engine and providing a virtual view of data. This takes the form of shared facilities available on demand in the form of computational utilities provided as a service, referred to as cloud computing. Whether obtained by individual firms or for collectives of shared and interconnected networks it is a simple thought to contemplate that armed with such capability an industry participant could see and calculate the amount of risk building up in real time with a counterparty or a market regulator could catch an errant trade or waves or trades before it became a problem.

### **Bring The Markets Together**

The first requirement to do this is to be able to bring together all electronically traded markets so that an institutional or professional trader's order entered anywhere in the interconnected market system can first be validated against their available credit or cash limits, a virtual credit hub if you will. A trade cannot be accepted unless it is validated as having enough borrowing power or cash in the account. The additional requirement is that that same customer must be visible in the system as a single credit limit across all introducing financial intermediaries. Most importantly for institutional size trades is the ability to actually pull sitting orders out of market center books, when a resting order would have executed through a credit limit; as bid/asked quotes change; and/or as an immediate last/next execution price would cause a resting order to be triggered.

To do this the industry would need to accept a systemic risk overseer to grant to all, the same time-out to do the risk checking before the market's next move. This would enable a "peek around the corner" to see what would happen to that account or counterparty if a trade would be executed that would cause the counterparty to exceed its credit limits.

A lot more risk management thinking is required, not only at the pre-trade level but at the later stages of actual trade payment or failure of payments. Here is where the entire infrastructure underpinning global payment and settlement systems needs fixing. This starts with basic blocking and tackling: rationalizing symbols, business and product identifiers which, in turn, will permit real-time clearing for all electronically-traded products. Trading firms can send out

and match thousands of orders a second. The technology currently available, coupled with a global standard identification system, will allow trades to be confirmed and cleared just as fast. This is the still-unrealized vision of Straight-Through-Processing.

### **Technology Can Catch The Problem**

It is a simple thought to contemplate that if we could only catch the problem before it becomes a problem we would be in risk management nirvana. Can we do this? Yes, today's technology makes this possible.

For example duplicate order books can be mirrored in a federated virtual Risk Management Utility (RMU), bringing together virtually, not literally all electronically traded markets; here is where we borrow the milliseconds from all to do the millisecond pre-trade/shadow post trade risk checking ability to actually pull sitting orders out of market center books, when a resting order would have executed through a credit limit, as bid/asked quotes change, and/or as an immediate last/next execution price would cause a resting order to be triggered. Another technology enabled risk management tool would accept account level/product level credit/limit details placed through a market center intermediary and deliver them up stream to the local servers and on to the virtual RMU.

The technology that makes all this possible is here today, the federated technology of the internet and the World-Wide Web, used by the intelligence community, by Google and Amazon and Walmart. Financial markets and financial institutions are both interconnected and global, and the available technology has outstripped our regulators' ability to implement the possibilities that it provides for risk managing trading markets.

Legacy systems and technology of the past cannot be an impediment to solutions needed for our future, especially as the technology of tomorrow is here today.

*Allan D. Grody is president of Financial InterGroup and has been advising governments and financial institutions on risk management, data management and trading technology for nearly half a century. The above is an excerpt of his observations that he offered to the CFTC's Concept Release on Risk Controls and System Safeguards for Automated Trading Environments.*

*Grody's full response can be found on the CFTC's public website*

*at <http://comments.cftc.gov/PublicComments/ViewComment.aspx?id=59756&SearchText>*