



Volcker risk controls or room to circumvent controls?

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Volcker calls for risk control improvements - Controlling trade activities within reasonable level and preventing anything from becoming a threat to US financial stability. Not much guidance is available other than the FAQ and OCC interim exam procedures. The vagueness in requirements leaves room for broad interpretations by banks, which hinder enforceability. It also leads to an ocean of solution providers preaching different risk management practices. Let see what practices are relevant for Volcker and which may leave room for rogue traders to circumvent controls.

1. System enhancements to aggregate the bank's clients and historical trade data

Applaud for this effort to bettering the understanding of client profiles and trade statistics. It is a good attempt to use these historical data for RENTD projection. However, history is seldom a good indicator for the future in the trading world, especially for the event-driven equity market. So, this is just partially relevant with Volcker.

2. Banks buy or build enterprise risk management systems (ERMs)

ERMs are for risk aggregation across asset classes and regions, overall governance for risk appetite statement, etc. They are helpful for compliance with the [BCBS-283](#) framework for measuring and controlling material exposures, which is part of Volcker backstop requirements. However, NONE of these systems quarantine prohibited trades in real-time. ERM does NOT rigorously test trade transactions to qualify for various Volcker exemptions. Therefore, they are NOT a "preventive" system to "ensure every single transaction meets the Volcker standards". Also, they lack the Volcker concept of "instrument approach" to inventory (controlling possible escalate/ bump-up basis risk while keeping delta risk in place by restricting desks usage of different trade instruments).

3. Banks invested in precognitive tools to tap into traders phone calls, messaging system to identify rogue traders

These in essence are data visualization tools and/or solutions to detect insider trading. They have little usefulness for Volcker if live order stream is not monitored to prevent possible circumvention of controls through synthetically created trades. Quoted from a marketing material that claims their ability to "detect flash crash and pin point unknown threats", I wonder how a data visualization tool would be able to deal with something that have no pre-cautionary signal or any risk event that is inexplicable, even after the fact?! I think the OFR agent-based models with all the complex algorithms can't even comprehend that yet. Our pursuit is to leverage crowd collective



intelligence in a utility model to defend against rogue traders on best effort basis. We are humble to consider what's realistic for Volcker.

4. Process to qualify for risk-mitigating hedge exemptions

In order to achieve compliance, banks need to strictly follow §_5(b) to handle the process on a play-by-play basis. The process to tag one part of the trade as market making and designate the related hedges at inception is no doubt an extra step for the traders. It is more of a challenge for the middle-office to aggregate and link these activities together to track the correlations and holistically review the effectiveness of hedge on a continual basis. These processes are complex, time-consuming, and invasive to the front-office traders if not being automated. Watch-out for false teaching that advocate for a "risk-based" approach to stuff hedges into market making. It may be considered as willful violations with substantial penalties. More importantly, did people forget about the London Whale case where risk limits were easily breached multiple times and losses accumulated in billions?!

5. Banks use VaR measurement, daily limits, and building controls into their product design right from the get-go

Among all these old-school risk management practices, integrating risk controls into product design is the most commendable practice that sends a strong message to all traders that they're been watched right from the get-go. In fact, product reviews are often done on a case-by-case basis. It is not able to detect possible bypass of controls that use synthetically created trades. Regarding daily risk limits, it is capable to contain certain situations. However, it is not able to catch intraday issues. In terms of Value-at-Risk (VaR) and other coherent risk measurements, they serve to predict magnitude and probability of losses. However, they fail to address the impending problem that Volcker is looking for - timeliness to prevent violations. Besides, there can be overfitting problems with VaR and it is not situational to pick up insights from the field.

Volcker calls for a whole new level of controls beyond risk limit controls, VaR, etc. Banks need:

- A "reasonableness" calculator to generate comprehensive **RENTD/ Securities Inventory Plan** each day;
- An **automated trade surveillance** system to rigorously test and qualify for exemptions;
- A real-time solution to **enable middle-office to match up against the front-office**, so there will be appropriate checks and balances.

Lastly, Volcker **risk controls need to be adaptive for continuous (machine) learning**, so it will prevent rogue traders from circumventing controls.