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## Volcker challenges: unsolvable or unprofitable?

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All the Volcker requirements sound so impossible, determining reasonable demand, detecting trade intents, and defending against anything that may become threats to US financial stability, etc. But to steal a quote from the Mission Impossible movie, “Nonsense, you’re only saying that because no one has ever done it”. Today’s technologies can make many once unsolvable challenges solvable. So are the Volcker Rule challenges unsolvable or just unprofitable?

To solve the Volcker challenges, it takes just 3 words: optimization, filter, and speed. Quant modelers can optimize the right amount of trades at the right time with ease, though the methods aren’t obvious (see article [Volcker Inventory too complicated or just unfamiliar](#)). Detecting intent is actually easier than determining reasonable inventory. Almost everyone use this technology everyday without realizing it, i.e. your email spam filter. Click [here](#) to see how this method applies to Volcker. So, the remaining challenge is about that defensive or preventive control. You can’t catch a situation if you wait until things have fallen and have gone bad. Therefore, speed is essential. Banks need to enable middle offices to match-up against front-office technologies. If it isn’t fast enough, it leaves room for rogue traders to circumvent controls (see [this](#) for additional thoughts).

Voila! Volcker is solved. The 3 words are the most typical ways to scientifically tackle/ frame any complex problem. However, it is hard to reverse market forces that push down trading revenue. Bank trading revenue as a percent of consolidated holding company revenue is down 30-50% compared to pre-crisis levels, according to [OCC first quarter 2015 report](#). Per transaction profit margins for banks are thin as they are measured in basis points rather than percentage points used by other industries. The prolonged low interest rate environment help lower funding cost for other industries but hurt banks (see [this](#)).

Looking at profitability, under the Volcker regime, banks aren’t supposed to make profits from risk mitigating hedges and liquidity management. They are deemed cost centers to achieve risk management and treasury objectives. In terms of event-driven revenues from underwriting, they are highly cyclical in nature and unpredictable. Yet, not every bank can be a market maker, and existing market makers are having a tough time surviving as well.

Per [SEC](#), a market maker needs to “stand ready to buy and sell a particular stock on a regular and continuous basis at a publicly quoted price”. According to [CGFS-52](#), the provision of market making services require “a sufficiently large client



base to ensure access to sizeable order flow information; the balance sheet capacity to take on large principal positions; continuous access to multiple markets...; the capacity to manage inventory and other risks; and market expertise to provide competitive quotes...” These are huge setup costs for smaller players while larger players cannot easily trim these fixed costs to improve profit margins (see [this](#)).

From a P&L prospective, market makers used to earn both facilitation revenues from bid-ask spread (sales of liquidity), as well as “inventory revenues” (impact of price movements). A more elaborated definition of “Inventory revenues” is composed of: (1) the variation in price (delta market value), plus (2) a reasonable compensation to carry of the position, then (3) minus all the funding/borrowing costs, hedging costs, and capital cost. However, Volcker threatens to make this “inventory revenue” extinct by banning proprietary trading and condemning carry of inventories beyond reasonable demand. As a result, banks shut down significant amount of unprofitable trading desks in response to this fundamental shift in market structure.

Let me point further to an empirical research by Steven Manaster and Steven Mann entitled “[Sources of Market Making Profits: Man Does Not Live by Spread Alone](#)”. They found evidence showing that “34% of total market makers’ trading revenue was due to execution profits, while the remaining was due to favorable timing.” The authors suggested that, “on average a market maker receives less for trade execution when he or she is making a well-timed trade”. Their observations demonstrate that “market makers are willing to reduce or eliminate the execution advantage to exploit or abuse the information advantage”. This potential conflict of interest is the biggest worry by rule makers and hence, Volcker ditched proprietary trading entirely rather than attempt to repair the market structure.

In conclusion, Volcker is not unsolvable, but it’s unprofitable. The Volcker compliance cost estimated by [OCC](#) (up to \$4.3 billion) is not as significant as the permanent foregone of trading profits for banks. Looking back at a related [Bernstein research](#) which stated, “... reduce non-exempt fixed income revenues by 20 to 25% ... the prohibition of flow trading would impact 55% of total revenue ... the industry FICC pre-tax margin would decline from 24% to an estimated 17% ...” Volcker costs over \$10 billion a year seem closer to the true reality.