

Progress and Problems in Reforming the Swaps Marketplace

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My name is John E. Parsons. I am a Senior Lecturer in the Finance Group at the MIT Sloan School of Management and the Head of the MBA Finance Track. I am a Research Affiliate of the MIT Center for Energy and Environmental Policy Research where I was previously the Executive Director. I have a Ph.D. in Economics from Northwestern University. At MIT I teach a course on risk management for non-financial companies, the so-called end-users or commercial hedgers. I have published research on theoretical and applied problems in hedging and risk management, and I have been a consultant to many non-financial companies on hedging problems of various kinds, as well as on other financial issues. I have participated in a number of Roundtables at the CFTC regarding the reform of the derivatives markets, and I represent BetterMarkets on the CFTC’s Global Markets Advisory Committee. I have testified several times to the House Financial Services Committee and its subcommittees on derivatives market reform. I recently completed a term as a Visiting Scholar at the Federal Energy Regulatory Committee studying financial trading in electricity markets.

Introduction

Unregulated derivatives played a major role in the 2008 financial crisis. All the devils at play elsewhere in the financial system were also at play in the derivatives markets, but two points deserve highlighting. Derivatives served as a trigger for key events in the crisis and as a vector for contagion, helping to spread the crisis throughout the system. Both points were manifested in the collapse of insurance giant American International Group (AIG), among the most notorious episodes of the crisis. The company’s London subsidiary, AIG Financial Products, had long profited on the sale of credit default

swaps. The deregulation of the OTC derivatives market allowed these to be sold without any up-front capital or margin. The state insurance commissioners who supervised AIG's other insurance businesses had no authority vis-à-vis these derivatives, despite the fact that these swaps were marketed to serve a role comparable to insurance. AIG's financial regulator, the Office of Thrift Supervision, was ill equipped and completely ineffective at supervising the company's derivative operation. As losses on these credit default swaps accumulated and AIG's financial position deteriorated, the firm suffered the effects of a classic bank run, losing access to short-term financing such as commercial paper and repo. The U.S. government stepped in and committed more than \$180 billion to AIG's rescue, including a loan from the Federal Reserve as well as Treasury funding under the Troubled Asset Relief Program (TARP).

More than any other single event, it is the case of AIG that provided the political clarity behind the need to regulate the derivatives market. In Senate testimony in 2009, Federal Reserve Chairman Ben Bernanke said, "If there is a single episode in this entire 18 months that has made me more angry, I can't think of one, other than AIG. ... AIG exploited a huge gap in the regulatory system. There was no oversight of the Financial Products division. This was a hedge fund, basically, that was attached to a large and stable insurance company, made huge numbers of irresponsible bets—took huge losses." For the public and for President Obama, the case of AIG is especially notorious because even after the company had taken taxpayer bailout funds, its Financial Products division proceeded to pay top managers enormous bonuses.

The case also provides intellectual clarity on the necessary shape of reform. In the midst of the crisis, regulators found themselves ill equipped to respond. U.S. law had exempted AIG's derivative transactions from oversight, and so no government authority had knowledge about the company's trades, nor did any authority have substantive knowledge about the larger market in which those trades took place. Lacking this information, no government authority could have acted in advance of the crisis. Moreover, once we found ourselves in the midst of the crisis, the authorities stumbled about without critical information. This case made clear that reform must provide regulators with information about any and all corners of the derivatives market and the authority to act on that information.

A second lesson was that risk management deficiencies involving derivatives at one institution like AIG could threaten other central parts of the system. As the news of AIG's financial woes became known, concern immediately arose about major banks, both American and European, with large exposure to AIG through the web of derivative contracts between the banks and AIG. Any reform of the

derivatives market should help reduce the transmission of problems between institutions. This should be integrated with the larger reform of the financial system.

The other crisis events in which derivatives played a role are less widely known, but equally important in guiding the design of reform. In particular, derivatives played a supporting role in the troubles at several other financial institutions in 2008, increasing the fragility of the system. For example, both Bear Stearns and Lehman Brothers were large investment banks with major businesses dealing derivatives. In both cases, losses on mortgage-related investments began to cast doubts on the solvency of the banks. These suspicions led various sources of short-term financing to dry up, creating liquidity crises. Both banks' positions as derivatives dealers played vital roles in their liquidity crises, when derivative counterparties began to reassign contracts away from them and refused new transactions, which drained cash from the firms.

Before 2008, economists discussed bank runs using the archetypal example of the traditional commercial bank that takes deposits. The crisis forced economists to incorporate into their discussion other components of the financial system that are also susceptible to runs—notably money market funds, but extending as well to investment bank lines of business such as prime brokerage and derivative dealerships. Any reform of the derivatives market should here, too, be integrated with the larger reform of the financial system designed to protect against bank runs.

At the September 2009 Summit of the G20 Leaders in Pittsburgh, it was agreed that the OTC derivatives market should be reformed:

All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements.

The reform has four main elements:

- Universal supervision. There can be no carve out for OTC derivatives that makes them exempt from supervision. Universal supervision represents a reversal of the explicitly deregulatory mandate of the United States' Commodity Futures Modernization Act of 2000.
- Transparency. All transactions must be reported to public data repositories.
- Exchange trading. Where possible, trading should move onto exchanges or comparable electronic platforms. Together with trade reporting this helps shine light onto the markets, for the benefit of the regulator as well as for competition and the wider public advantages that stem from

transparency. Meanwhile, price transparency makes the market work better for all participants, while also giving regulators a crucial tool in examining systemic risk.

- Clearing. The mandate to clearing through central counterparties is designed to reduce the amount of credit risk accumulating in the system overall and also to locate credit risk where it is best supervised by regulatory authorities. Requiring capital for non-centrally cleared contracts is both a tool to encourage central clearing and a component of sound banking practice.

The principles defining the G20 Pittsburgh consensus on derivatives reform already governed the regulation of the U.S. futures markets. All trade in the futures and options markets had long been subject to regulatory oversight. Indeed, the existence of the unregulated OTC derivatives market is due to an exemption from the pre-established principle of universal supervision of all futures and options trading. The futures and options markets are mostly transparent, dominated by exchange trading, with data feeds easily accessed by the regulatory authorities and important data available to the public. As well, all contracts are cleared by a central counterparty. As a specific example, look at the oil futures market, which is the largest among the commodity derivative markets. It is registered with the U.S. Commodity Futures Trading Commission (CFTC), largely exchange traded, with rigorous reporting and publicly accessible data feeds, and entirely cleared.

So, the principles behind the reform are tried and true. Indeed, the customs and regulations embodying those principles evolved over more than a century. For example, the clearing mandate in the futures industry arose out of a debate that took place at the end of the 1800s and the first three decades of the 1900s. Central counterparty clearing was introduced to the U.S. in 1896 by the Minneapolis Grain Exchange, home to futures trading in grains. This innovation helped to reduce the aggregate amount of risk in the system and therefore lowered the amount of capital required to manage futures markets. This in turn lowered the cost charged to non-financial companies hedging with futures. Central counterparty clearing also improved access to the futures market, keeping the market competitive and growing. Established futures exchanges in other cities gradually recognized these advantages of central counterparty clearing and copied the innovation. As new futures exchanges were established, central counterparty clearing was often the chosen structure right from the start. This was the case at the Chicago Mercantile Exchange, established in 1919 for trade in butter, eggs, and other products. In 1925, the Chicago Board of Trade, which was the largest futures exchange at the time, switched to central counterparty clearing. From that date forward, central counterparty clearing reigned as the standard practice for futures trading in the U.S., and remained so for the next 50 years. Looking

back, it is clear that the innovation of central counterparty clearing was a boon to the growth of U.S. futures markets throughout the 20th century.

The Progress of Reform

The United States has shown tremendous leadership in the reform of its derivative markets. Title VII of the Dodd-Frank Act provided the legislative authority to implement all of the Pittsburgh principles. The main responsibility for the implementing Dodd-Frank in this area falls to the Commodity Futures Trading Commission (CFTC), which is responsible for more than 90% of the US derivatives marketplace. The Securities and Exchanges Commission (SEC) is responsible for the remainder, and some important elements of the reform also involve the banking supervisors as well as the Financial Stability Oversight Council.

The CFTC moved swiftly to write the regulations Congress tasked it with. The SEC has moved more slowly, but is also making progress. While the CFTC still has a few rules yet to complete, its focus is shifting to implementation of its rules, which includes consideration of revisions needed. Attention is shifting to see how change is showing itself in the marketplace, and to finetuning the regulations in response.

Swap dealers and major swap participants now register with the CFTC.¹ The agency's rules establish standards for business practices covering a wide range of issues. Not all of the work in this area is complete: some governance rules remain. But the principle of supervision is being implemented.

A large fraction of U.S. swaps are now centrally cleared. For interest rate swaps, which is the largest category, it is estimated that over 80% of the market is now cleared. Another large category is credit derivatives which have also begun central clearing. However, progress is limited in the remainder of the market. In aggregate, the portion of swaps that are cleared is about 75% according to CFTC Chairman Massad's recent testimony to the Senate Agriculture Committee.² This is a major

¹ The CFTC's list of registered dealers is here:

<http://www.cftc.gov/LawRegulation/DoddFrankAct/registerswapdealer>

It's list of registered major swap participants is here:

<http://www.cftc.gov/LawRegulation/DoddFrankAct/registermajorswappart>.

² Testimony of Chairman Timothy G. Massad before the U.S. Senate Committee on Agriculture, Nutrition & Forestry, Washington, DC, May 14, 2015. <http://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-22>

accomplishment, and hopefully the CFTC will follow through on the other sectors of the market where clearing is appropriate.

Trading of swaps has also begun to be moved onto exchanges and electronic platforms—the so-called Swap Execution Facilities or SEFs. Some of this shift looks like little more than moving the old bilateral brokering from telephones onto new electronic communications systems. However, even that shift entails important improvements in transparency, oversight and competition. Still, the development of fully competitive exchange trading is only in its infancy in the swaps market.

Trade reporting is the area where progress looks the greatest on paper, but is most problematic in practice. In the U.S., all swap trades must be reported to a swap data repository or SDR. This is supposed to be a main tool for giving the regulators the insight about the market that was sorely missing in 2008. Although the statement that all trades must be reported is accurate, it disguises important deficiencies that should trouble this Committee and to which I will turn shortly.

Beyond the implementation of the G20 principles and the specific provisions of Title VII of Dodd-Frank, other changes are also required. Commissioner Sharon Bowen has spoken about the need for improving the culture in finance, and we are well served by the prominence she has given the issue.³ While the country as a whole made a clear decision to reform the OTC derivatives market and to change the bad practices that had accumulated over so many years, many in the industry have not yet made that change.

Problems in Trade Reporting

The principle that all trades be reported is, on its face, the simplest reform. There was virtually no objection to writing this into the Dodd-Frank Act, and no disputes in principle in writing the regulations. Nevertheless, implementation has proven more difficult. It is equally difficult to assess progress in this area. One obstacle is that a simple reading of regulator reports on trade reporting does not give an accurate picture of the situation. For example, the Financial Stability Board (FSB)—an

³ Commissioner Bowen Speech before the Managed Funds Association, 2015 Compliance Conference, May 5, 2015. <http://www.cftc.gov/PressRoom/SpeechesTestimony/opabowen-4>

international body responsible for monitoring progress in implementing the derivatives reform—issued last week its Ninth Progress Report and wrote that⁴

At end-June 2015, the majority of FSB member jurisdictions (14) have trade reporting requirements in force covering over 90% of OTC derivatives transactions in their jurisdictions.

That sounds good. Later, the same report turns to the problems in trade reporting and writes that:

Several authorities continue to note challenges in ensuring the efficacy of trade reporting.¹⁶ These have been discussed in some detail in prior progress reports, and include:

- *difficulties with TR data quality, such as the accuracy of information being received and processed by TRs, particularly associated with the absence of Unique Transaction Identifiers (UTI) and Unique Product Identifiers (UPI);*
- *challenges in aggregating data across TRs (both domestically and cross-border)*
- *the existence in some circumstances of legal barriers to reporting complete data into a TR (“input barriers”) (e.g. counterparty identity or other identifying data); and*
- *legal barriers to authorities’ access to TR-held data (“output barriers”).*

This language is far too anodyne to convey to outsiders the true state of the problem. What, for example, is really meant by “difficulties with TR data quality” and “the accuracy of information being received”?

What they mean is that a lot of the data is simply gobbledygook. Former CFTC Commissioner Scott O’Malia called attention to this a couple of years ago when he recounted the difficulty regulators had in making use of the data feeds coming from the U.S. trade repository, the Depository Trust & Clearing Corporation (DTTC). He said, “The problem is so bad that staff have indicated that they currently cannot find [JP Morgan’s now famous] London Whale in the current data files.”

Unfortunately, not all assessments are as blunt about the problems. In his recent testimony to the Senate Agriculture Committee, Chairman Massad proudly cited the Weekly Swaps Report as evidence of the good progress being made, saying:⁵

⁴ Financial Stability Board, OTC Derivatives Market Reforms, Ninth Progress Report on Implementation, 24 July 2015. <http://www.financialstabilityboard.org/2014/11/fsb-publishes-progress-report-on-implementation-of-otc-derivatives-market-reforms/>

⁵ Testimony of Chairman Timothy G. Massad before the U.S. Senate Committee on Agriculture, Nutrition & Forestry, Washington, DC, May 14, 2015. <http://www.cftc.gov/PressRoom/SpeechesTestimony/opamassad-22>

You can now go to public websites and see the price and volume for individual swap transactions. And the CFTC publishes the Weekly Swaps Report that gives the public a snapshot of the swaps market.

I found that an odd citation because my experience with that report is that it is evidence for the problems as much as for the progress.

What quality of information do you really get from the CFTC's Weekly Swaps Report? Printed below is a screenshot I took earlier this week of some of the data in that Report.⁶

The screenshot shows the CFTC website's navigation menu and a table titled "GROSS NOTIONAL OUTSTANDING - COMMODITIES (MILLIONS OF USD)". The table lists "Commodity Swaps by Product" with columns for dates: June 12, June 19, June 26, July 03, and July 10. The "Total" row shows 1,700,000 for all dates. Other product categories like Agricultural, Index, Energy, and Metals show "N/A".

Product*	June 12	June 19	June 26	July 03	July 10
Total***	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000
Agricultural	N/A	N/A	N/A	N/A	N/A
Index	N/A	N/A	N/A	N/A	N/A
Energy	N/A	N/A	N/A	N/A	N/A
Metals	N/A	N/A	N/A	N/A	N/A
OTHER**	N/A	N/A	N/A	N/A	N/A
TOTAL	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000

Gross notional amount outstanding, current weekly snapshot, by product type, all participant types, tenors and currencies.
 * See Data Dictionary for product descriptions and Explanatory Notes for data sources.
 ** Includes the following products: Multi-Commodity, Environmental, and Freight.
 *** These numbers are estimates.
 **** N/A indicates that data are not currently available.
 The Commission requests feedback on the format and content of this CFTC Swaps Report table. Submit comments to swapsreport@cftc.gov.

⁶ <http://www.cftc.gov/MarketReports/SwapsReports/L2CommGrossExp>

The table shows the Gross Notional Outstanding of swaps on Commodities measured in Millions of US Dollars. Gross Notional Outstanding is a common measure of the total size of segments of the swaps market. The table shows a Total amount for each of the most recent weeks, June 12 through July 10. The total shown is 1,700,000, which is \$1.7 trillion. Below that total, there is a breakdown by category of commodity swaps, including Agriculture, Index, Energy, Metals and Other, but each of these has no number for any items in this breakdown. Instead, the entry is "N/A" which the footnote says "indicates that data are not currently available."

The footnote above that explains that the total figures "are estimates." Notice that the total value recorded in each week is the same \$1.7 trillion. Actually, if we go back to the very first of these weekly reports which was posted in November 2013, we see that the total value of commodity derivatives reported even then was also exactly \$1.7 trillion. It has been the exact same figure for 92 weeks in a row. No matter how the volume of other derivatives goes up and down, the estimate for the commodity derivatives outstanding remains constant.

That's not an estimate. It's a plug. It would be more honest to report "N/A", not available. Back in November 2013, when I first read the \$1.7 trillion dollar figure and the accompanying footnote, I imagined that the estimate had a foundation. Now, after having seen it stay constant for so long, I know that it can't have any reasonable foundation. Why pretend? Let's be honest with the American people and say that we still don't know, and we're working on it. Claiming to have a number when we don't provides an illusion that we are farther along on the reform than we really are.

Not all of the data being reported is as worthless as this item. There is real information in those reports that regulators now have that they did not have before the reform. The problem is that there is so much junk mixed in with the good stuff.

Why are there so many data problems? There are a number of reasons and excuses. It was always going to be difficult to take an industry that had evolved over decades without any oversight and reshape it to provide meaningful reports accessible to regulators and the public. Broad mandates like the call for transparency issued at the G20 Pittsburgh meeting are simply stated, but implementation is a challenge. The staff at the CFTC have been working hard to write and rewrite their regulations to fit the particular structures of the swaps market. The CFTC is cooperating with the Office of Financial Research on an important project to improve data definitions and data structures to make the reporting meaningful and useful.

But the problem is not just a technical and rulemaking challenge. It is also an enforcement challenge. Sometimes what companies report is just a swiss cheese of information, riddled with missing data fields. And often the missing information is clearly standard stuff that no trader has an excuse to leave out. I wrote last year about a problem with reporting in electricity swaps on ICE's data repository, Trade Vault, quoting from a critique provided to the CFTC.⁷ As a rule, we have been very indulgent of this poor behavior, and the implementation of quality reporting has therefore lagged.

It is worthwhile to note that the U.S. futures and options markets do not have any of the same problems with trade reporting. The swaps industry is fond of making a distinction between swaps and futures—every swap is its own special snowflake, and this is what makes implementing the trade reporting and other mandates so difficult. While there is some truth to this distinction for a small volume of swaps, for the vast majority it is nonsense. For example, large portions of the interest rate swap market are economically the same as futures, and trade reporting should be no more difficult for these than for futures. The industry, therefore, needs to share responsibility for organizing itself to structure its trades and trading in a fashion that is transparent and monitorable. Otherwise, it represents an ongoing threat to the financial stability of the country.

Conclusion

In the five years that have passed since passage of the Dodd-Frank Act, much progress has been made. Regulators have begun to gain oversight of the market, credit risk has declined substantially and the framework for transparent and competitive trading is in place. Implementation has only recently begun, and progress has been uneven and marked with important problems. Therefore, much work remains. Some of this is work for the regulators, but much of it is work for the swaps industry. Leadership from the industry is required to shape the swaps market so that it is a vital and vibrant source of financial strength and stability to the U.S. economy.

⁷ <http://bettingthebusiness.com/2014/02/11/never-give-information-to-the-enemy/>