Where are We in the Reform of OTC Derivatives Markets?

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Unregulated derivatives played a major role in the 2008 financial crisis, making clear the need for reform. Indeed, consensus was reached quickly on the necessary features of derivative market reform. The quick consensus is especially striking in light of the many debates that continue to this day on the right direction for the reform of other components of the financial system.

That consensus has its roots in the peculiar history of the derivatives industry in the U.S., which stretches back 150 years to the trading of wheat futures on the Chicago Board of Trade. Heading into 2008, the U.S. derivatives industry operated along two parallel regulatory frameworks and market structures. The older of the two, the futures and options markets, was firmly regulated according to principles fashioned over the course of more than a century. The "new kid on the block" was the unregulated swaps market, also known as the over-the-counter (OTC) derivatives market. Originally carved out as a provisional exception to the long established rules governing futures markets, its unregulated status and different market structure were given firm sanction in the Commodity Futures Modernization Act of 2000. The OTC derivatives market quickly grew to become the dominant segment of the derivatives market. It was this unregulated OTC derivatives market that played such a destabilizing role in the 2008 financial crisis. Its older cousin, the futures markets, did not play a similar role, and, instead, provided a working example of a derivatives market operated under sound principles, which could be adapted to the OTC derivatives market.

Despite the consensus on direction, implementation of the derivatives reform has dragged along very slowly. At times, it seems as if it might stall out entirely. Why? Three things undermine the momentum provided by the quick consensus.

First, there are the economic interests tied to the specific market structure of the OTC derivatives industry. Operating outside of any regulatory framework, the OTC derivatives industry evolved a ramified set of crisscrossing business entities, extending from the derivative dealers housed in the largest banks to the associated brokers, technology vendors and customers of all types. Many of them can probably win a profitable place in a reformed market, but the transition creates important competitive dangers. For others, the transition defines away a good portion of their business, and they will not go without a fight. All of them have worked to slow the reform.

Second, the uncontested status of the reform vision for the derivatives markets masks a remarkable diversity of attitudes among supporters of reform. For some, derivatives are esoteric financial instruments relevant to Wall Street traders but incidental to real business. For others, derivatives are inherently evil, rocket fuel for a casino economy

rigged to benefit the few at the expense of the many. Only a small subset of supporters of reform affirmatively embrace a vibrant, well-managed derivatives market as an essential feature of a successful growing economy that benefits the whole population. While this subset designed the vision of derivatives reform currently being implemented, they have not yet sold it as part of a broader vision of shared prosperity. This divergence in attitude weakens the public case for reform.

Third, despite the clear consensus at a strategic level, some important details are yet to be worked out. The crisis exposed the error in leaving the OTC derivatives market unregulated. It undercut the foolish claim that swaps were essentially different from other derivatives, and reminded us of what we already knew about how to structure healthy derivatives markets. But while swaps are not essentially different, some swaps—being customized or otherwise suited to a small base of customers—are ill suited to exchange trading and clearing. We would be in a better position now if, during the several decades when the market was evolving, we had moved in tandem to gradually tailor rules appropriate to these circumstances. This would have provided room to test and fine tune the rules. Having failed to take the time when we had it, the crisis forces us to act hurriedly now. Still, there is a practical limit to how quickly we can successfully devise some rules. The process must be informed by experience. This limit tests our patience, and the debates on these details endanger the consensus, providing opportunity for opponents of the entire reform project.

The reform of the derivatives market lies along a clear track, but without much power or speed. The tracks laid out in the consensus architecture define a clear course forward, so that at this slow speed there is no danger of veering off course to the right or the left. But it is always possible that the train could start moving in reverse.

In the following, I will highlight the role that derivatives played in the crisis and how that informed the shape of the reform. Then I will provide an update on how far the reform has proceeded. Finally, I will discuss what lies ahead and some features of the debates to come.

Derivatives in the 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 2008 financial crisis and as a vector for contagion, helping to spread the crisis throughout the financial 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 by selling 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 provides 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. Any reform must provide regulators with information about any and all corners of the derivatives market and the authority to act on it.

A second lesson was that risk management deficiencies involving derivatives at one institution like AIG could threaten other central parts of the financial 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, and 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 2008 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.

The Shape of Reform

In light of these experiences, one can appreciate the architecture for reform that arose in the wake of the crisis. At the September 2009 Summit of the G20 Leaders in Pittsburgh, it was agreed that OTC derivatives should come under regulation and oversight, and that:

> 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.

This statement points to three major conditions of reform:

- The first is the key principle of universal supervision. There can no longer be a 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.

- The second is transparency. Moving transactions onto exchanges and mandated reporting are actions designed to help 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 participates, while also giving regulators a crucial tool in examining systemic risk.

- The third is clearing. The mandate to clearing through central counterparties is designed to reduce the amount of credit risk accumulating in the system overall—the well-established purpose of central counterparty clearing—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 three 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.

The industry customs and regulatory framework for the U.S. futures and options industry evolved over more than a century, so there is deep experience with them. For example, the recent debate over whether or not to mandate the clearing of most derivative trades actually reprises a debate over the evolution of U.S. futures markets 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.

None of the problems arising in the 2008 financial crisis involved these regulated derivatives markets, although even with these regulations in place, important stability issues sometimes arise, as we have seen in the past. In contemplating how to reform the previously unregulated OTC derivatives markets, economists and policy makers had experience with futures and options markets to inform their choices.

How Far Have We Come?

In the United States, this basic architecture for derivatives reform was quickly codified as Title VII of the Dodd-Frank Wall Street Reform and Consumer Protection Act and signed into law in July 2010, less than a year after the Pittsburgh G20 summit. The relatively fast legislative action in the U.S. has been followed by slow-moving regulatory implementation. Although the law directed the CFTC and the U.S. Securities and Exchange Commission (SEC) to draft the appropriate implementing regulations within a year, it is now three years later and the job is not complete. Nevertheless, the CFTC in particular has been insistently moving the ball forward.

By count, a little more than one-half of the rulemaking has been completed. That leaves another one-half yet to be finished. This kind of crude accounting, however, can be misleading. On the one hand, where rules are not yet complete, they are nevertheless substantially underway. On the other hand, where rules are complete, some of the deadlines for changes to market practice lie in the future, so that a completed rule does not yet mean the market is functioning any differently.

Looking at some crude measures, we find that changes are beginning to take place in the U.S. Already most derivatives trades must be reported to approved data repositories. The requirement that derivative trades be cleared is one step behind data reporting. The first deadline mandating clearing for one class of swaps by certain traders arrived this past March. Further stages in the mandate have since arrived, and more are to come. In the U.S., approximately 65 percent of new trades in interest rate swaps are now being cleared, according to a report released last month by the Financial Stability Board (FSB), an international body made up of finance ministries, central banks and international financial institutions. For credit derivatives, the figure is approximately 40 percent. These are very preliminary data that cannot be readily checked by outsiders, and a more reliable accounting will not be possible for a while. The requirement that derivative trades move onto exchanges—swap execution facilities (SEFs) in the U.S. legislation—is two steps behind. The first of these new exchanges just opened for business earlier this month, and the initial trading is light. However, the requirements to use the exchanges only come into force in a staged process over the coming months and into the next calendar year.

Globally, the process is moving forward at a varied pace. In Europe, the basic reform architecture was codified in the European Market Infrastructure Regulation (EMIR), which in its final shape passed the European Parliament and the European Council in July 2012. Some other countries still have not completed the legislative work. Implementation in Europe trails the U.S., perhaps because the ongoing European banking crisis has distracted authorities. Trades are ostensibly being reported to data repositories, although data are not yet available in a practical form. Major clearing facilities are either just opened or still being readied. Globally, the FSB reports that approximately 42 percent of the outstanding positions in interest rate derivatives and 14 percent of

credit derivatives have been centrally cleared. For other classes of derivatives, central clearing has yet to make a mark.[1]

Roughly speaking, in the U.S. we stand now at a transition point between writing the rules and overseeing their translation into practice. That task will be a difficult one as we try to move beyond the letter of the rule toward fulfilling the spirit. Take as an example the simple requirement that all transactions be reported to data repositories. Data can be reported and still not be meaningfully organized or usable. CFTC Commissioner Scott O'Malia captured many people's attention earlier this year 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." Obviously, much work must be done to standardize data formats, contract features and various other practices so that the data on trades is usable and informative.

Even more extensive work lies ahead in regard to the clearing mandate and the move to exchange trading. Authorities must assure that all contracts that can be cleared are cleared. This will require both evaluating the contracts that are traded as well as encouraging standardization where feasible. Evaluating the transparency of trade on exchanges is a similarly demanding task. The successful implementation of both mandates will involve complicated questions of industry structure and competition. These will be difficult and contentious to resolve.

The Path Ahead

The next stage of implementation is complicated by three important problems. The first is the necessity and difficulty of global cooperation. This was highlighted recently when European authorities, together with authorities from a number of other G20 countries, criticized the U.S. CFTC for moving too quickly and aggressively in implementing its rules. The Europeans objected to the CFTC enforcing its regulations on U.S.-parented entities trading derivatives outside the U.S. The vigor with which the Europeans made their complaint stood in odd contrast to the slow speed with which they have been implementing their own reform. On the U.S. side, there is a concern that U.S. companies will move their derivative trades to jurisdictions where the reform is as yet incomplete, with the ultimate risk returning to the U.S. government and economy when the next crisis hits. Successfully resolving this dispute is one of the most vital tasks facing the reform in the months ahead. Obviously the principle of universal supervision would lose any substance if a U.S. company could escape supervision by moving its derivative operations to a nation without real supervision. The dispute has temporarily been resolved with a commitment by all sides to implement comparable regulations and, where comparable regulations exist, to recognize them. Whether this agreement will be realized in practice is yet to be seen.

Coordination is equally essential in other areas as well. Already, different national regulations regarding data privacy constrain sharing data with authorities in other states, not to mention public reporting. This could make a farce of transparency unless it is addressed. Clearing, too, will require international cooperation in order to produce the anticipated benefit of cancelling offsetting exposures and liabilities in significant quantities. So far, there has been a lot of talk about this, and going forward it will be important to turn that talk into action.

The second problem involves defining the details respecting how different types of derivatives trade. For example, the unregulated swaps regime did provide a space for customization and for trade in relatively illiquid instruments ill suited to exchange-trading and clearing. Accordingly, the G20's Pittsburgh consensus requires only that the majority of derivatives be exchange-traded and cleared. So an important unfinished task is defining the boundary between those products that must be moved onto exchanges and cleared, and those products that will not. What rules will govern trade in these customized and less liquid products? This is new territory.

The Dodd-Frank Act's Title VII is especially problematic in this regard. It preserves the parallel structure of the U.S. derivatives industry, with one regime for futures and options and a new regime for swaps. It then requires that this new regime obey mandates for reporting, exchange-trading and clearing, like those that govern the futures market—albeit with exceptions for some swaps. This burdens the agencies with deciding not only how to handle the exceptions, but also what criteria should differentiate the larger quantity of swaps traded in a market parallel to the futures market and obeying the same principles.

The problems that are likely to arise were previewed this past year in the debate over "futurization" that ensued when certain segments of the U.S. OTC derivative trade started to migrate over to the futures markets. One noted case came to public attention in August 2012, when the Intercontinental Exchange (ICE) announced that it would repackage all of its cleared OTC energy swap products as futures, subjecting them to the old, established futures regulatory rules. A second case involved products being developed by the CME Group, a large futures exchange company, and Eris Exchange, a futures exchange, designed to mimic interest rate swaps previously traded under the old unregulated OTC marketplace, but in this case structured as futures contracts, subject to the old, established futures regulatory rules. Before the reform, swaps had the advantage of regulatory arbitrage—where futures markets were supervised, swaps were not, where futures markets were transparent, swaps were not, and where futures markets were cleared, swaps were not. The Dodd-Frank Act erased these distinctions between futures and most swaps. Now, after the reform, other criteria will determine the relative place of the two markets. What will those criteria be? The legislation has essentially devolved to the CFTC the task of developing an economic rationale for the parallel markets.

Finally, implementation will be complicated by the fact that the process of reform is concurrent with other, unrelated forces that are changing the nature of trading on financial markets. Changing technologies have upended the old order in equity markets, and the same thing is happening in foreign exchange markets and in futures markets. Established regulations need to be revised in light of these new technologies, but this also reopens previously settled questions about the purpose of the regulations and how trading should be structured. We have already seen in the U.S. equity markets the type of chaos that can ensue. The incumbent swaps industry would like to use confusion here as cover to reverse the derivatives reform and preserve their franchise in its old structure. Negotiating this process will be a difficult task.

Conclusion

For more than 150 years, the U.S. pioneered the establishment of vigorous derivative markets that served as an important source of stability to business and contributed to economic growth. Our recent experiment with unregulated derivatives produced instability and set our economy back. The key elements of reform—universal supervision, transparency through exchange-trading and price reporting, and central clearing—are tools for reclaiming the powerful good these financial instruments can provide. There remains much to be done to realize that goal.

Endnotes

1. These figures on the global market are not comparable to those quoted earlier for the U.S. since they reflect, in part, legacy un-cleared contracts that have not been moved to clearinghouses; new contracts may be clearing centrally at a greater rate. Of course, this lack of comparability in reported data is precisely part of the problem that the new reforms are ultimately intended to eliminate.

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