



THE NEXT CRISIS WILL BE DIFFERENT (PART ONE)

Opportunities to Continue Enhancing Financial Stability 10 Years after Lehman's Insolvency

DTCC

Executive summary

Over the past decade, the financial industry has made substantial progress in strengthening global market stability and enhancing resilience. Financial firms have deleveraged significantly and banks have strengthened their capital structure. During this same period, supervisors have dramatically increased requirements designed to create a more robust financial ecosystem. Central bankers have skillfully applied monetary policy tools to mitigate the impact of the crisis while keeping inflation in check. While this delicate balancing act has been successful so far, it has required unprecedented asset purchases and pushed interest rates to historically low levels in large parts of the world – leaving significantly less ammunition to fight another crisis with monetary policy tools.

Despite significant efforts to improve **post-crisis resilience**, which are covered in the first part of this paper, we have identified additional opportunities to further strengthen financial stability through enhanced system-wide resilience:

- Global financial stability can be further enhanced by expanding central clearing for both cash and derivatives markets;
- Increased regulatory harmonisation and cooperation among all

stakeholders is required to harness the full potential of derivatives trade repositories as early warning signals for the buildup of systemic risk;

- The use of legal entity identifiers (LEIs) in regulatory reporting should be mandated globally to increase risk transparency; and
- Enterprise data management capabilities should become foundational to financial firms' risk management frameworks.

While many aspects of financial resilience have markedly improved since 2008, multiple new challenges have emerged during this period with respect to the macroeconomic environment, market-related risks and concerns related to technology. These new challenges, which have transformed the risk landscape over the last decade and which are briefly summarised below, are covered in part two of the paper, released the following week.

- Despite a generally positive short-term outlook, several medium-term **macroeconomic concerns** are emerging related to trade tensions, rising geopolitical risks and high levels of global debt. Additionally, stretched asset valuations have added to the risk of sudden price drops. While these potential threats are hard, if not impossible, to control or predict, they are highly interdependent and should be addressed through a cross-disciplinary approach:



The quote

Global financial stability can be further enhanced by expanding central clearing for both cash and derivatives markets.

- Risk management organisations should become increasingly holistic and include cross-disciplinary experts to address an ever-widening array of interconnected risks.
- With respect to **market-related risks**, the rising popularity of ETFs has the potential to become a growing source of concern, especially if these offerings continue to evolve towards increasingly esoteric and opaque products with highly complex risk profiles. The level and robustness of market liquidity is another market-related risk that continues to be debated. Opportunities to enhance financial stability with respect to market-related risks include the following:
 - The exposure associated with the proliferation and increasingly esoteric nature of certain ETFs should be managed more closely to match their specific risk profiles.
 - Opportunities to optimise and accelerate the U.S. equity settlement cycle beyond T+2 should be pursued to further reduce the exposure associated with unsettled trades.
- **Technology-related risks** comprise a very wide and diverse array of risks, including, but not limited to, a series of innovative technologies that are generally characterised as fintech developments. While fintech-related risks should be assessed on a case-by-case basis, there is widespread agreement that digital currencies and other types of crypto-assets, as well as the growth of technologies such as cloud-based computing, do not threaten financial stability at present. At the same time, there is also a growing consensus that fintech developments are fast-moving along a relatively unpredictable path, which demands that they be carefully monitored and thoughtfully supervised to balance the associated risks and rewards. Cybersecurity concerns, while not new, have grown exponentially to the point where they are considered by many as the single most important near-term systemic risk. The associated opportunities to enhance financial stability are listed below:
 - Supervisors should continue to focus on harmonising regulatory requirements and encouraging innovation in a way that carefully balances the associated risks while ensuring a level playing field.
 - Cybersecurity capabilities and plans should continue to be prioritised, emphasising resilience and recovery as much as prevention, incorporating tabletop exercises and promoting public-private partnerships.

Post-crisis resilience

Key takeaways

- Post-crisis regulatory measures to increase banks' resilience have been generally successful. However, low profitability and other specific vulnerabilities continue to persist, particularly in the European banking sector.

- While monetary policies have effectively addressed post-crisis challenges, they have left central banks with considerably less latitude to combat the next crisis.
- Further work remains to be done in order to fully implement two major post-crisis areas of reform: the use of LEIs to improve risk aggregation and central clearing of over-the-counter (OTC) derivatives.
- Equivalence determinations by the European Commission in regard to the U.S. cash-securities markets under the jurisdiction of the U.S. Securities and Exchange Commission (SEC) remain outstanding and require urgent attention. Key takeaways
- Post-crisis regulatory measures to increase banks' resilience have been generally successful. However, low profitability and other specific vulnerabilities continue to persist, particularly in the European banking sector.

Risk management is as much about trying to prevent a financial crisis as it is about building resilience in case one materialises. This section reviews to what extent banks, CCPs and the public sector have managed to strengthen their capacity to absorb potential shocks.

Banks have significantly strengthened their balance sheets

Many banks have enhanced their funding resilience in line with the objectives of post-crisis regulatory reforms. Banks' liquidity buffers have also been strengthened, largely thanks to the introduction of the Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). From a systemic point of view, a decline in interbank lending and derivatives exposures is also noteworthy, in addition to the increased use of stress testing and ongoing progress towards the creation of a global recovery and resolution framework.

At the same time, however, bank profitability has declined across several countries, potentially necessitating further restructuring and cost-saving efforts. Weaker profitability could also encourage banks to take on new risks in search of higher profits. Profitability has been particularly low within Europe and non-performing loans (NPLs) continue to be a cause of concern, particularly for the Italian and Spanish banking sectors.

CCPs have continued to strengthen their resilience

While CCPs have been a key component of the financial system for many decades – and while they proved their value and resilience in the wake of the Lehman insolvency – the introduction of mandatory central clearing for standardised OTC derivatives in some jurisdictions has made them more critical than ever.

In recognition of the importance of CCPs and other types of market infrastructures, the Financial Stability Oversight Council (FSOC) designated eight financial market utilities (FMUs) as systemically important under Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act in July 2012. Earlier that year, the Committee on Payments and Market Infrastructures (CPMI) and the International Organisation of Securities Commissions (IOSCO) published the Principles for Financial Market Infrastructures (PFMI) in 2012. These principles served to harmonise and, where appropriate, strengthen three previously issued sets of international standards for systemically important payment systems, securities settlement systems and CCPs.

Rules set by national regulators are consistent with these principles, which have been supplemented since 2012 by a series of related documents that provide further guidance in areas as varied as cybersecurity, recovery and resolution, stress testing, loss allocation models, capital structure and governance.

The public sector is left with less ammunition than it had a decade ago

Over the past decade, central banks around the world have conducted quantitative easing (QE) programs on an unprecedented scale, pushing interest rates down while amassing multi-trillion dollar balance sheets in the process. Although these programs have been remarkably successful so far, they have undeniably left central banks with less latitude to combat another crisis. The reversal of these QE programs presents an unprecedented monetary policy challenge that may have unintended consequences in the years ahead.

Additionally, the growth of public debt levels over the last 10 years has left governments with less flexibility to implement countercyclical fiscal measures in case another recession were to occur.

Finally, it is worth pointing out that restrictions imposed by certain post-crisis regulatory reforms on the Fed, the Treasury and the Federal Deposit Insurance Corporation have constrained their ability to make the types of emergency loans that were extended to support troubled banks in 2008.

A considerable portion of OTC derivatives trading has moved to central clearing

The financial crisis highlighted the systemic importance of OTC derivatives, a sector of the financial market that had expanded rapidly, yet remained largely opaque. In 2009, the G20 adopted a series of reforms designed to improve transparency and mitigate systemic risks posed by OTC derivatives. The promotion of central clearing has been a key component of the 2009 reforms and has substantially improved the transparency and risk management of OTC derivatives. Since the adoption of these reforms, central clearing of OTC derivatives has rapidly expanded globally, with the Bank for International Settlements estimating that approximately 55% of credit and 75% of interest rate OTC derivatives were centrally cleared as of 2017 year-end.

Enhancing transparency using LEIs

Efforts intended to enhance transparency through the use of LEIs have only been partially successful so far.

While significant progress has been made over the last decade, additional work is required to realise the full benefits of global data standardisation, especially those which would improve systemic risk analysis.

The LEI system was intended to help financial firms and regulators assess financial exposures across a network of connected entities more quickly and accurately – a challenge that proved daunting, if not practically impossible, in the wake of the Lehman insolvency.

While the creation of the global LEI system itself was a necessary first step, its intended goal of enhancing transparency remains elusive as universal adoption of LEIs remains inconsistent. While regulatory mandates have moved forward in Europe, they have stalled in Asia-Pacific and the Americas. In fact, the use of LEIs is only one of several broader post-crisis enterprise data management initiatives that most banks are still in the process of implementing. According to the Bank for International Settlements' 2017 assessment, only three global systemically important banks (GSIBs) have achieved full compliance with the "Principles for effective risk data aggregation and reporting" (January 1, 2016 was the initial implementation target for GSIBs). This assessment serves as a reminder that, while much progress has been made in this area, significant work remains to be done to realise the full benefits of LEIs and other post-crisis global data standardisation initiatives.

European Commission equivalence determinations

Equivalence determinations by the European Commission in regard to the U.S. cash-securities markets under the jurisdiction of the SEC remain outstanding and require urgent attention.

Efforts are ongoing by the European Commission to make equivalence determinations for jurisdictions where third-country CCPs that provide services to EU firms are established. EU firms and their clients increasingly require access to the global financial markets, including the equity and fixed-income markets in the U.S., which necessitates access to trading venues and post-trade infrastructure directly or through branches.

As part of the equivalence determination process, a current legislative proposal would require ESMA to determine if a CCP is systemically important or likely to become systemically important. DTCC believes this assessment is unnecessary for third-country CCPs where clearing services predominantly relate to third-country securities, rather than derivatives. CCPs clearing securities markets have a fundamentally different risk profile than that of CCPs providing clearing services for derivatives markets, and inherently present lower levels of risk. U.S. regulators have also expressed concern about the proposed third-party CCP assessment.

Equivalence determinations by the European Commission in regard to the U.S. cash-securities markets under the jurisdiction of the SEC remain outstanding and require urgent attention. The impact would be significantly negative if the U.S. equity and fixed income markets were not recognised by ESMA and thus could no longer be accessed by EU banks and EU domiciled clients.

Opportunities to enhance financial stability

Global financial stability can be further enhanced by expanding central clearing for both cash and derivatives markets

While the risk that is concentrated in central counterparties must be carefully managed, the benefits of central clearing are undeniable and have been demonstrated repeatedly in real-life financial crises over many decades. As dramatic as the consequences of the Lehman insolvency were, they would have been even more devastating without the trade guarantees provided by central counterparties.

In order to more fully leverage the risk management benefits provided by central counterparties, the promotion of central clearing of standardised OTC derivatives transactions was a key component of the post-crisis reform agenda. As described in the latest progress report on OTC Derivatives Market Reforms by the Financial Stability Board (FSB), countries around the world continue to make progress to further promote central clearing of standardised OTC derivatives transactions.

In addition to these continuing enhancements, DTCC also sees opportunities to further strengthen financial stability by expanding the benefits of central clearing to specific areas within cash markets. For example, in order to mitigate fire sale risk in the \$1.6 trillion institutional tri-party repo market, DTCC's Fixed Income Clearing Corporation (FICC) has extended its CCP trade guarantee to tri-party repo transactions between its Government Security Division (GSD) dealer members and eligible tri-party money lenders, as part of its Centrally Cleared Institutional Triparty (CCIT) Service.

In another initiative to extend central clearing capabilities to the institutional market, FICC recently expanded its Sponsored Membership program by making it available to a wider range of Sponsored Members and institutional clients. Additional steps for further expansion are currently under consideration.

Finally, potential measures to counter the recent shift in the inter-dealer Treasury market away from centrally cleared activity to bilateral trading should also be examined in detail.

Increased regulatory harmonisation and cooperation among all stakeholders

This is required to harness the full potential of derivatives trade repositories as early warning signals for the buildup of systemic risk.

The G20 call to establish derivatives trade repositories as a way to mitigate systemic risk associated with OTC derivatives was a direct response to the 2008 financial crisis. While derivatives trade repositories have been implemented in various jurisdictions to date, the goal of providing supervisors with a comprehensive picture of market risk remains elusive. One important obstacle to achieving the transparency that is necessary to regulate systemic risk in this global market is a lack of regulatory harmonisation.

In order for derivatives trade repositories to serve their purpose and help regulators identify emerging pockets of systemic risk, standard-setting bodies, trade associations, derivatives trade repositories and regulators, together with any other stakeholders, must continue to cooperate to refine technical guidelines around data consistency, data standardisation and harmonised reporting practices. Once these enhanced standardisation efforts have been implemented, derivatives trade repositories will be able to provide the foundation for additional developments designed to further reduce operational and systemic risks.

At the same time, legal and regulatory barriers to data use in value-added services (such as reconciliation, compression or margin calculation) as well as those related to data sharing and third-party access must be removed across jurisdictions.

DTCC will continue to collaborate with the industry and regulators to achieve these goals and develop more streamlined and cost-effective reporting solutions.

The use of legal entity identifiers (LEIs) in regulatory reporting should be mandated globally to increase risk transparency

The creation of the LEI system is arguably one of the most tangible achievements that resulted directly from the financial crisis. This system of global and unique entity identifiers was specifically designed to promote financial stability in two ways. First, it allows supervisors to better monitor and analyze systemic threats. Second, it helps companies enhance their own internal risk management practices and reduce costs associated with collecting, cleaning, aggregating and reporting data.

While the industry's use of LEIs has progressed significantly, the full benefits of this system will only be achieved if it is adopted universally. For this reason, we support the further expansion of the mandatory use of LEIs for reporting purposes as a regulatory requirement across all jurisdictions and financial markets worldwide.

Enterprise data management capabilities should become foundational to financial firms' risk management frameworks

Data management practices are often too inconsistent and/or incomplete to ensure the level of data accuracy and timeliness that is required to enable fully informed risk management decisions. Additionally, the scope and complexity of data management issues, as well as the organisational challenges associated with addressing them, tend to be underestimated. Given the foundational importance of monitoring and improving enterprise-wide data quality, enterprise data management functions should become an integral part of financial firms' risk management organisations. A robust enterprise data management program, featuring high-quality data, with strong governance, housed and accessed via an advanced data architecture, is not only a critical foundation for today's risk management capabilities, it is also required to achieve the benefits of new technologies that can play a critical role in building resilience.

Part two of this paper, released the following week, looks at the multiple new challenges that have emerged in the last decade with respect to the macroeconomic environment, market-related risks and concerns related to technology, and how these challenges have transformed the risk landscape.