



DTCC Systemic Risk Forum

Keynote address by Werner Bijkerk, Head of IOSCO Research

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Thank you DTCC, Andrew and Michalis, for inviting me here today to make a keynote address. This is good news for IOSCO, where I started the work on identification, monitoring and mitigation of systemic risk just about three years ago. IOSCO, the global standard setter for securities markets regulators, had no such function before. It created one on my initiative because I thought systemic risk and financial stability were not exclusive to the banking sector. Today, my small research department is producing an increasing stream of public reports that have all been well received by the press and others. We have:

1. set out an innovative and practical methodology for systemic risk analysis,
2. published in October the first of the annual series of Securities Markets Risk Outlooks,
3. as well as exploratory analyses on cyber risks and crowd funding.

We are currently working on reports on:

- corporate bond markets
- corporate governance
- CCPs
- and ideas for improving the craftsmanship of regulators using behavioral economics and criminology.
- Furthermore, we have launched our statistics website.



Finally we are engaging intensively the regulatory community with the market and academic community because we think minimizing systemic risk is in the interest of us all. So far the good news.

The fact that I am delivering this keynote address to you today also means bad news. If I had done my job well enough, risks would be under control and we wouldn't need to debate about them. Today, this is not the case. As systemic risk analysts, the regulators, the market experts and the academics are at infant stages of development. Our track record is poor. Frankly, I don't know where to start:

- with the unsatisfactory methodologies for identification of systemic risk – I guess in our second panel we will talk about this more in depth,
- the lack of consistent and timely data,
- the list of recent scandals in our structurally biased financial firms,
- or the feeble response of regulators and industry to all these issues.

More than five years after the crisis that cost the world roughly 15% of GDP, our society has put trust in us, regulators and industry, but the only assurance I can give them is that the world is not safeguarded against another financial crisis.

Well, what do I see as the most important risks today?

1. The Search for Yield – return of leverage

- The search for yield is leading to a return of leverage:
 - *Pension funds and other institutional investors* are turning to hedge funds and leveraged products, such as CDO's, CMBS etc.
 - *Retail investors* are moving into leveraged mortgage REITs etc.
- In the case of a reversal of interest rates, leverage can steepen losses and destabilize the financial system if not properly managed.
- CDO's are complex and the last crisis showed that even the most sophisticated investors did not understand the risks involved. The trend is sizeable and could harm the financial system and the economy as a whole if not properly monitored.



- The trend of pension funds taking on leverage indirectly through hedge funds can also be a risk. We have seen that pension funds with the worst funding position are most tempted to use this route. While investing in hedge funds is not necessarily a bad thing, pension fund risk management practices and due diligence need to be thorough and properly overseen. If things go wrong, and funds were to be faced with big losses of savings of millions of people, this could harm public trust in pension funds and hedge funds.
- Retail investors tend to be trend followers with their investments and also go into leveraged real estate and mortgage investment funds, such as mortgage REITs in the US.
- In the case of a reversal of interest rates the value will fall rapidly. Investors might not be aware of these risks.
- Apart from the eventual losses, a fire sale could lead to market destabilization, as mortgage REITs will have to sell-off their MBS's (they hold a large percentage of MBS). This can spill-over to the mortgage rates and reduce economic activity in this field.

2. The Search for Yield – volatility to emerging markets

- The *Search for yield* is being felt in emerging markets and has led to capital inflows in past years.
- After the FED's announcement of tapering there was a reversal of flows and volatility, especially through the bond markets channel.
- Most emerging economies have used the years of buoyancy to build stronger economic and financial foundations.
- They have diversified their markets expanding the investor and product base, and made markets more accessible and flexible (FX).
- This helps to absorb shocks but will not entirely avoid a reduction in economic growth.

3. Collateral in a stressed funding environment

- The collateral space is filled with huge uncertainties, lack of transparency and risks of pro-cyclicality that are systemic.
- Banks increasingly depend on collateral for their funding.
- Demand will grow cumulatively by additional collateral calls emanating from the derivatives package (margin requirements for non-cleared; additional collateral for CCPs; higher capital charges for banks for non-cleared derivatives and increased bank capital requirements.
- Supply has decreased as central bank lending has absorbed collateral and institutional investors appear to lend out less.
- The question is whether collateral will be where it is most needed.
- And if the velocity will pick up and help here.
- Market responses we have found include *re-use* and *collateral optimization and collateral transformation.*
- As these activities are not always disclosed, it is hard to keep track and to know where the risks are transferred to and pooling.
- The collateral space has benefited from a period of low volatility. What if a big event happens and volatility picks up. Haircuts will rise and additional posting of collateral will be needed. This will increase pro-cyclicality in the system and can cause fire sales.
- Disclosure of risk management measures like concentration information and asset encumbrance ratios, etc. is needed.
- Today we are unable to assess the impact of the changes and challenges of the collateral space.



4. Derivatives Markets and CCPs

- CCPs are becoming too important to fail as they pool huge amounts of risk, become increasingly interconnected with the banking system, and manage enormous amounts of collateral. We agree with the vision of Paul Tucker expressed last week, with whom by the way we have had intensive discussions, that this is the most important risk to the financial system if not adequately managed and supervised.
- A failure of a CCP would be catastrophic for the financial system as they are so interconnected.
- An event, such as a downgrade of the debt of a big firm or country, can cause pro-cyclical effects when CCPs pose margin calls and demand higher haircuts. There are serious fears over whether there would be enough collateral available in such events.
- OTC derivatives markets have grown since the crisis by almost 10% to \$ 633 trillion outstanding. Total clearing has increased with 213% to \$ 173 trillion.
- We notice that varying types of collateral are accepted, not all types are highly liquid. In relation, we fear competition on collateral as there are costs to CCPs who are profit maximizing institutions. In addition, we haven't got enough insight into the quality of risk management and models. This, again, is a cost center for CCPs.
- CCPs are also are interconnected with the banking system. Not only are many major banks members of CCPs, but initial margin collateral collected, particularly cash collateral, in some cases may be deposited back into the bank.
- While CPSS-IOSCO recently has published principles for financial markets infrastructure, supervision will have to be expanded and intensified.



5. Cyber risks

As you might know, in July last year my research department published an exploratory analysis on cyber risks to exchanges. We surveyed the exchanges with the help of the World Federation of Exchanges and made some alarming observations

- Increasing sophistication and complexity of cyber-crime

Focus has shifted from systems (e.g. crashing systems) to information (e.g. manipulating/stealing information).

Attacks now utilize a variety of traditional cyber-crime techniques at once and utilize social engineering.

Attacks now are specifically and strategically tailored for a particular entity, rather than launched against as many users as possible. The more widespread the attack, the easier to detect and prevent it.

Rise of the Advanced Persistent Threat (APT): attacks mainly orchestrated for political or ideological aims rather than financial gain. They are generally very sophisticated and persistently employed over a number of years – they can go undetected for years.

- The threat is growing
- Has a truly systemic impact
- It is cross-jurisdictional and is therefore hard to track and combat
- Existing, local regulation might prove ineffective
- And thus the calls for global management of the problem. I am happy to announce that IOSCO has taken up this challenge and has structured multiple efforts, including the writing of principles, the exchange of information and reinforced global cooperation among regulators, and between regulators and market participants.



In the DTCC paper *Beyond the Horizon* a list of 13 potential systemic risks are given. Some of them do overlap with the five risks I mentioned. I actually think that all risks that are mentioned are not beyond the horizon anymore. They are daily business and should be on each other's radar screens. All of these risks are cross-jurisdictional or even global in nature. And now, after we have identified them, the difficult task begins: analyze them in more depth and mitigate them. Most of these risks are relatively new, sometimes operational rather than financial, and in some cases no databases exist that cover these risks. Here regulators will need the help of industry players. And regulators will need to work together globally in organizations such as IOSCO. Let me conclude with the following wish. Since the mitigation of systemic risk is in the interest of all of us gathered here today, I hope you will help us to fulfill our public duty.