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Plenary 2

Market Stability

7. Market Stability,
Introduction by Professor Fernando Teixeira dos Santos

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Panel 2: **Market Stability**

I would like to thank IOSCO for giving me the opportunity to be present at 26th Annual Conference. I have been asked to mediate the panel on 'Market Stability' and I am more than pleased to do so. Before I give the floor to our guest speakers, I would like to make a few remarks.

- Firstly, I would like to review the lessons that supervisory authorities should learn from the recent financial crises. I am particularly referring to i) the Asian crisis in 1997, (ii) the default of the Russian financial system in 1998, and (iii) the collapse of the Long-Term Capital Management (LTCM) in 1998.
- Secondly, the risks which are hard to perceive in real-time by supervisory entities.
- Lastly, I will raise some questions regarding the type of supervision that is carried out today and that will be carried out in the near future.

1 – Recent crises and lessons to be learnt by supervisory authorities

1.1. The Russian and Asian Crises

Both crises are recent examples of systemic risk propagation. These cases are mainly typified by a set of interruptions in several financial systems, jeopardizing the functions of those systems (i.e. asset allocation, liquidity, price formation, and the transmission of monetary policies). The probability of failure of different financial systems depends on various factors:

1) The probability of turbulence reaching various markets (foreign exchange, bonds, shares and derivatives markets);
2) The probability of a problem in a market or institution reaching other markets and institutions;

3) The probability of banking system bankruptcy. In this case, I can openly say that the financial system may be confronted with difficulties without the involvement of the derivatives. But derivatives increase the risk-level for three reasons: (i) they truly represent the global market; (ii) they promote a high level of leverage; and (iii) they elude supervision more easily than other products do.

These sources of risk propagation clearly illustrate the 1997 Asian crisis. Thailand, Malaysia, Indonesia and South Korea were heavily in debt with foreign borrowers, and their financial systems were weakly regulated. This borrowed money had been badly invested. When Thailand abandoned the fixed exchange regime, the value of its debt measured in domestic currency (*bath)* was significantly increased. The situation at hand, and the stock exchange crash, mirrored the frailty of Thailand's financial system. In a week, this country's problems spread to various countries within this region (Philippines, Malaysia and Indonesia). Naturally, speculators started their attacks against various Asian currencies, mostly by using derivatives. Fuelled by the massive sale of securities and loan suspensions, the crisis attained such magnitudes that economic agents never thought it possible. Even countries with solid fundamentals (such as Singapore, Hong Kong and Taiwan) were now a target for speculators. The climax of the situation occurred with the crash of the stock market in Hong Kong.

The Asian crisis illustrates various sources of risk in a globalised economy:

1. A stable financial environment relies on both the performance of the stock exchange market and the sturdiness of the domestic financial sector. Should both situations fail, the market will be a participant in the global economy in a costly and problematic way;

2. Even countries with sound fundamentals could be contaminated. The risk of transmission is presently higher than in the past. This is the price to be paid for globalisation;
3. I have a clear impression that the risk is presently more classified – if we have a problem in a group of countries with an 'x' level of risk within a region, this problem will certainly spread to other countries if these countries fall under the same risk irrespective of their geographical distance.

If the Asian crisis had not occurred, we probably would not have had the Russian crisis, or at least not as bad as we did. Russia had a high external debt and an overvalued exchange rate. Apart from these factors, Russia had several gaps in its financial system, namely problems relating to moral hazard. When institutional investors caught sight of what was happening in Asia, they immediately tried to understand the Russian financial system (where they had invested significant amounts of money). Their understanding was that the situation was just as bad as Asia's. In consequence, currency and assets sales occurred. The worst was yet to come, when the Russian Central Bank depreciated the ruble and declared a moratorium on the payment of the Treasury debt.

Therefore, I would like to put forward the following question: "Which role should supervisory authorities play (and which measures are to be implemented) regarding risk management (credit risk, restrictions on capital flows, and market liquidity)?"

1.2. Collapse of the Long Term Capital Management

In the Fall of 1998, the collapse of *hedge funds*[1] made the front page of all newspapers. The LTCM was created in 1994 with a capital of 1.3 billion US dollars. The minimum investment required of each

[1] Private investment pools that aggressively invest in all types of markets and in which the managers get a percentage over the profits. Some hedge funds use a coverage/hedge strategy, but most obtain the income through high-risk investments.

participant was 10 million US dollars, and these funds could not be withdrawn for a period of 3 years. Each partner placed 100 million US dollars.

There was a 2% yearly management fee on managed assets, and 25% on asset appreciation. After fees, the income generated by LTCM was 20%, 42.8% and 40.8% in 1994, 1995 and 1996, respectively. These results clearly show that LTCM did not perform low-risk operations as it claimed. However, in 1997, the income generated by the NYSE was 33%, whilst the LTCM results were 17.1% only. At that time, LTCM managers decided to implement a 'leveraged' strategy, thereby decreasing their equity capital and purchasing 125 billion US dollars worth of assets (a 25 to 1 debt to equity ratio - a value which is high in any situation, even for hedge funds). Purchased assets were very risky: low liquidity bonds issued by emerging market countries; company junk bonds; high-yield bonds, amongst others. Concurrently, LTCM heavily invested in derivatives; in the beginning of 1998, the notional value of the derivative contracts exceeded 1.000 billion US dollars – 697 billion in swaps and 471 billion in exchange-traded futures. It is estimated that during August, the value of these contracts exceeded 1.500 billion US dollars.

How was it possible for LTCM to obtain such a remarkable volume of credit? Firstly, through the performance that the fund had been exhibiting since 1994; secondly, through its partners, John Meriwether (responsible for the bond segment of Salomon Brothers), David Mullins (Vice-Chairman of the Federal Reserve Board), and Myron Scholes and Robert Merton (both nominated by the Swedish Academy).

How did the LTCM collapse occur?

After the normalisation of the Asian situation, in 1998 LTCM bet on decreasing spreads. Likewise, in June of the same year, the performance of the mortgage-backed securities market was substantially poorer than expected, and LTCM registered a 16% capital loss.

The worst was yet to come. After the Russian crisis in August of 1998, investors started a quest for quality, thereby transferring their capital from highly risky assets with no liquidity to liquid assets with low-level of risk. Meanwhile, the spread between emerging markets debt and North American Treasury bonds increased from 6% in July to 17% in September. The spread between USA bonds with a B-rating and company bonds with an excellent rating increased from 2% to 5.6%. In light of this situation, LTCM equity capital had fallen to 600 million US dollars by mid September – a loss of over 4 billion US dollars. On the 22nd of September, the Federal Reserve Bank called on the executives of companies with large exposure vis-à-vis LTCM, and cautioned them to the high-level of systemic risk of the possible default of that hedge fund. On the following day, 16 members of the creditor consortium agreed to placing 3.625 billion US dollars for 90% of the remaining capital of LTCM in order to avoid systemic propagation.

Which lessons can be learnt from the LTCM case?

Firstly, the fact that nobody was aware of the risks involved by LTCM, i.e., the extension of the trading strategies, the volume of loans and the open-positions on derivates. I am referring to investors, borrowers, swap counter-parties and regulators. For instance, banks should have financed LTCM with the perfect knowledge of the global portfolio risk of the hedge fund. But apparently, this was not the case. On the other hand, risk evaluation instruments used by LTCM underestimated credit and political risk as well as market interruption. Lastly, the FED showed that in order to maintain market stability, one should not only take bank risk exposure into consideration, but also risk for any other type of institution, such as hedge funds. Should this not be taken into consideration, the moral hazard problem could take on a different dimension.

2– Risks that are difficult to perceive in real-time by supervisory entities:

I will focus on two types of risks related to the modern financial activity:

1. Technological development and related risks;
2. Financial innovation and the supervision of new products.

1. As regards technological development:

Technological advances are certainly one of the reasons for the present stock exchange evolution. The proliferation of alternative trading systems (ATS) and electronic communications networks (ECN) cannot be ignored. Both *ATS* and *ECN* have exposed some vulnerability of the traditional trading methods. Both *ATS* and *ECN* present significant advantages, particularly in relation to exchanges with a trading floor system:

1) They are more cost effective (trading costs are lower, they present a minimum variation margin of the lower quotation, and they have lower spreads);
2) They are more efficient in terms of trading, insofar as the liquidity of a security can be centralized through an electronic system;
3) They are safer, because technology allows for the swift execution and processing, including the almost immediate confirmation of the price and value of the transaction;
4) They are more in accordance with investor's needs, insofar as they offer methods for the execution of orders which cannot be made available by the traditional exchange business, namely continuous auction, limit order book, crossing and order preference models;
5) They provide for the anonymity of agents, reducing potential impacts in trading by major transactions;
6) They increase trading opportunities, by offering both a wide variety of products and the possibility to trade at different hours of the day.

We are therefore facing a phenomenon that brings along the possibility of being the only means of trading in the future.

However, these systems have their own set of risks.

With the appearance of these innovative trading means, supervisory authorities are faced with new challenges. To this end, it does not make much sense that systems that trade different securities from different parts of the globe are locally supervised (from the location where the platform is situated). International co-operation will be the answer.

The regulation of these new mediums will be based on investor protection, fairness, security, efficiency, and reduction of systemic risk.

Investor protection involves issues such as trading access, the best execution of orders, and the possible conflicts of interest (namely those regarding the relationship between participants in the ATS).

There are other challenges regarding fairness, security and market efficiency: 1) market fragmentation and the possible effects that this might have on price efficiency; 2) transparency, particularly on informative level; 3) the quality of the requirements of securities listing; 4) the quality of the trading systems.

Lastly, regarding the reduction of systemic risk, operators of an electronic platform should perform their activity in such a way that the trading risk does not increase the counter-party's risk. Equally important is the clear-sighted analysis of the participants' financial resources, i.e., understanding how adequate their capitals are vis-à-vis the type of operations that are carried out.

2. As regards financial innovation:

The reforms that are occurring, particularly in Europe, have alerted various agents (issuers, investors and financial intermediaries) to the advantages of efficient capital markets, namely private debt. The efficiency of financial and capital markets is also a result of the linkage between financial instruments. Take the case of a bond that rewards the investor according to the performance of its shares: in this case, the investor will not only seek information on the company's rating and the market opportunities, (these would be sought in a situation of a variable rate bond) but also on the shares profitability. This is a situation in which the instrument linkage is valuable for market efficiency. However, this comprises a series of risks:

1. On the one hand, a significant amount of this debt is traded on the over-the-counter market;
2. These are extremely complex products (Asset Backed Securities-like, *Reverse Convertible Notes,* amongst others);
3. Some of them are related to derivatives and therefore present a high leverage level (of risk);
4. These are products that often escape the control of the local authorities.

3 – Questions regarding present supervision

1. Does it presently make sense for various supervisory entities to exist in the same jurisdiction (banking, insurance and capital markets) when the market is essentially driven by financial conglomerates?
2. What should be done in order for various supervisory entities (within the same jurisdiction) to act efficiently? This question is particularly important should there be an increase in volatility which will lead to the rise in the value at risk of institutions under the supervision of various supervisory entities that have a group relationship. How should supervision act in these cases?

3. Financial conglomerates and supervisory entities work on a global and local basis, respectively. In face of this, are financial supervisory functions capable of being carried out efficiently? How?
4. Should financial supervision be organised in order to supervise functions (for example, management of assets and complaints) or institutions (for example, banks and insurance companies)?
5. What path should be taken regarding capital markets' regulation? Self-regulation or de-regulation?
6. In face of the global environment, what measures should be taken in order to maintain market stability particularly regarding high levels of volatility?
7. Does it presently make sense that one discusses the implementation of circuit breakers?
8. Lastly, does it make sense that one restricts capital movements in periods of high volatility? Should a Tobin tax-like scheme be implemented?

Finally, a question that although not related to supervisory issues, is nevertheless vital:

Are stock markets today more exposed to volatility? If so, what are the reasons for this?