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Reinforcing the Last Lines of Defense

--------- Evolution of central banks' Lender of Last Resort function

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(Introduction)

This year marks an important milestone for the Japanese financial industry. It is a decade since the collapse of Lehman Brothers. It is also the twentieth anniversary of the fall of Long Term Credit Bank of Japan at the height of the nation's home-grown financial crisis of the 1990s. As Japan moves on next year to a new era following Heisei, which started with the bursting of the asset bubble and during which Japan's financial industry underwent two major crises, it is perhaps a moment to reflect on our experiences of crisis management and draw some lessons which might prove useful in preparing for future crises. Today, among many aspects of crisis management tools, I want to focus on the central bank's emergency liquidity assistance, often referred to as the **Lender of Last Resort** (LLR) function, which, in my view evolved in meeting the challenges that emerged one after another in our dealing with the two major financial crises of Heisei. Let us first briefly revisit what kind of crises they were.

1. The two Financial Crises of Heisei Era

(Japan's Financial Crisis of the 1990s)

Japan underwent a major financial crisis in the 1990s after the bursting of its asset bubble. It was unprecedented in terms of scale and severity. During the crisis, as many as two hundred financial institutions, including non-banks and internationally active ones, went under. The cumulative credit losses arising from non-performing loans (NPLs) in the banking sector mounted to ¥100 trillion, equivalent to 20% of GDP. The losses were not confined to accounting losses.

There were human casualties, too. A few bankers and public sector officials sacrificed their lives under intense public pressure blaming them for ill-managing the financial institutions and for the failure to prevent the problem from developing into a systemic disruption.

At the time, the authorities were suffering from a serious lack of crisis management tools and incomplete safety-net arrangements, with which to deal with the unfolding crisis. Under such circumstances, the Bank of Japan, in pursuit of its legal mandate to maintain nation's financial system stability, performed its LLR function extensively, but as a result, incurred credit losses exceeding ¥ 200 billion ($ 2 billion), for which it was criticized heavily.

Japan's financial system was closest to a systemic melt down in November 1997, now remembered as *Dark November,* when four financial institutions including internationally active ones failed in a single month. Only when the crisis became visible to everyone's eyes were law makers alerted. That paved the way to a substantial and comprehensive upgrading of the financial safety net, including the use of public funds when faced with an exceptional and systemic risk to the financial system.

(The Global Financial Crisis----GFC)

Japan's financial crisis of the 1990s had initially been perceived as a uniquely Japanese experience of mishandling a financial cycle with little implication for the rest of the world, until the world was hit by the **Global Financial Crisis** (GFC), when we recognized Japan was merely a decade ahead of its peers in meeting a similar challenge. Indeed, I am often amazed to see striking similarities, particularly in the sequence with which the two crises developed. For example, when we look back and see how the authorities initially tried to downplay the crisis by underestimating the potential losses. Government was initially reluctant to resort to the use of public funds for fear of being criticized by the parliament and by the general public more broadly, until the crisis was almost out of control. In Japan's case, it was the Dark November of 1997, and in the US case the fall of Lehman Brothers, the two most visible episodes, that paved the way to building a more comprehensive framework to contain the crises.

2. Evolution of central banks' LLR function

(Changes to the Traditional Concept of LLR)

In both financial crises, central banks played key roles in containing the crisis by performing the role of LLR. They were literally the last lines of defense against the threat to the financial stability. In particular, the GFC was a catalytic experience for many central banks around the world, because they met new challenges in their role as ultimate providers of liquidity to the financial system. Confronted with the need to provide credit to institutions and markets that faced unprecedented liquidity constraints, they often had to develop new facilities to deal with sudden liquidity shortfalls and make new arrangements for mutual cooperation, since these shortfalls spilled across national borders. It was through this process that the nature and the way in which emergency liquidity assistance extended by the central banks evolved from its traditional form into a new one adapting to the changing financial environment. Let me elaborate on what I mean by this by first revisiting the traditional concept of LLR.

Before Japan's home-grown financial crisis of the 1990s, the key concept of LLR was based on a set of rules outlined by **Walter Bagehot** in his famous book titled ***Lombard Street*** written in 1873. The basic rule was that emergency liquidity assistance by the central bank should only be extended to solvent but temporarily illiquid banks against eligible collateral. An underlying assumption was that banks were special because of their roles as credit intermediaries and providers of payment and settlement services. Furthermore, since the causes for an illiquid bank were presumed to be idiosyncratic, it was assumed that liquidity assistance by the central bank would typically be extended in the form of bilateral lending, naturally in its own currency. In later years, it became widely acknowledged that "*Constructive Ambiguity*" should be a guiding principle when exercising the LLR function, to keep moral hazard to a minimum.

In the actual dealing with the financial crises, however, central banks encountered challenges to many aspects of the rules that they had thought were fundamental. For example, in dealing with the Japanese financial crisis, we discovered that insolvency is not easily identifiable in real time particularly in the initial stage of a crisis, because in many cases, if not all, what began as a liquidity problem developed into insolvency. A complication is that solvency may itself depend on whether liquidity support is available and the terms in which it is offered. This means the very decision by the central bank could change the fate of a bank and spare it from insolvency.

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The issue became more widely shared by the central banking community in dealing with the GFC. It was recognized that solvency was not a static concept, but something that changed in a dynamic way depending on developments in the macro-financial environment, actions of the financial firm in question and policy responses of the authorities. As a matter of fact, a number of central banks have departed from a strict point-in-time solvency requirement for granting liquidity support. For instance, some central banks have introduced the concept of *viability*. This means a financial intermediary will be granted liquidity support by the central bank provided there is a credible plan by the firm itself or by the relevant authorities to reestablish the firm as a going concern.

There were other challenges to the traditional notion of LLR. The conventional wisdom under the Bagehot Rule was that a central bank should collect best quality of collateral against its liquidity support. In fact, during the GFC, many central banks widened the set of collateral they were willing to accept for the purpose of providing liquidity support. The decision was made against the backdrop that although restricting collateral to quality assets can reduce the financial risk that a central bank incurs, it was feared that it could limit the amount it can provide, impairing its ability to respond effectively to severe liquidity shortages.

Meanwhile, central banks recognized, again contrary to the conventional knowledge, that it was not only deposit-taking institutions but also non-bank financial intermediaries that could become sources of a systemic disruption. Likewise, when the entire market was under stress and suffering from liquidity shortage, as we witnessed during the GFC, central banks injected liquidity to the whole market via open market operations instead of bilateral lending to individual firms. Moreover, we have learned from our actual crisis management experiences in the 1990s that *constructive ambiguity* can be counter-productive, or even destructive. Once a crisis erupts, the central bank should be quite clear about the criteria with which liquidity support is extended. This is why the Bank of Japan, in meeting the challenges of the financial crisis of the 1990s, established the *four principles* that should be met when deciding to extend its LLR support.

(The International Dimension)

One lesson from the GFC is that the provision of liquidity support in domestic currency will often not suffice to mitigate the extraordinary liquidity shortages of internationally active financial intermediaries that funds in one currency and convert them to finance in another currency. During the GFC, when the FX market became dysfunctional against the backdrop of heightened concerns about counterparty risks, the global financial community experienced an acute shortage of dollar funding liquidity. This reflects the fact that US dollar is the key currency used for trade and financial transactions. A number of global banks found it difficult to finance or roll over their funding of US dollar denominated assets by exchanging foreign currency into US dollars.

The central banking community overcame this issue by creating a network of **swap lines** with the Federal Reserve. The Federal Reserve, as the only issuing central bank of the US dollar, supplied dollar liquidity to the foreign central banks against their own currencies. The recipient central banks then distributed the dollars they received to financial intermediaries in need of dollar liquidity in their own jurisdictions. Thus, the Federal Reserve was exposed only to the credit risks of the foreign central banks while the counterparty credit risks of private institutions were borne by the foreign central banks that channeled the US dollar in their own jurisdictions. This was a new dimension added to the LLR function, which hitherto had been confined to the provision of domestic currencies by the issuing central banks.

The activation of a network of swap lines that was created shortly after the fall of Lehman Brothers proved successful in mitigating the acute stress in the dollar funding market. The ability of the swap lines to mobilize a large amount of US dollars in a speedy manner contributed to the success. The positive signaling effect of the coordinated actions by the central banks must have also contributed to improving market sentiment. The creation of swap lines was perhaps the most tangible achievement of coordinated efforts by the central banking community during the GFC.

3. Lessons for the Future Exercising of LLR

The GFC drove central banks' LLR function to a new global dimension. Central banks' network of swap lines was a typical example in which many aspects of the new dimension was crystalized. At the same time, however, the GFC left the central banking community with common challenges in dealing with future liquidity stress in a cross-border context. They concern three issues.

The first issue is the importance of addressing practical issues arising from liquidity shortage that affects several jurisdictions simultaneously. Central banks in the home and host jurisdictions will need to cooperate and coordinate their actions. The form of cooperation depends on their national frameworks, which determine among other things whether a troubled institution is eligible to receive liquidity assistance. The issue of whether it is the home or host central bank that performs as the ultimate lender will be decided in this context.

There are also a range of operational issues relating to ways of sharing key information and making assessments about the eligibility and solvency of potential recipient financial intermediaries. Another important exercise would be to explore whether financial assets denominated in foreign currency and located abroad can be eligible collateral, against which liquidity assistance in domestic currency may be extended. Furthermore, the GFC left lessons for the central banking community to identify means to acquire foreign currency in supplying liquidity assistance. Central banks must provide for a rainy day by addressing these issues well in advance.

The second issue relates to the increased emphasis on transparency in many respects of central banking including crisis management. Transparence is a necessary ingredient of accountability. Central banks will be required to demonstrate greater accountability and disclosure in performing their role as the LLR. But simultaneous disclosure of its liquidity support may, depending on the circumstances, prove counter-productive as the very action could be perceived to be the reflection of a desperate situation and thus amplify the stress it is meant to mitigate. Central banks must seek to balance competing needs for flexibility in responding to specific circumstances of stress episodes against the demands for greater accountability and disclosure.

The third issue reflects the critical role of market-based intermediation. Throughout the GFC, central banks' actions were on many occasions motivated by the need to support the functioning of important markets. This was the case, for example, when markets for corporate financing such as CPs and corporate bonds became dysfunctional, some central banks stepped in either by accepting these instruments as eligible collateral or by outright purchases. This type of support by central banks is quite different from the traditional LLR function. The issues that remain to be further explored include the means that are available to channel liquidity, the associated communication about the objectives and also the complexities that arise when these markets are by nature international.

My overarching message is that central banks need to prepare in calm times by addressing the three issues I mentioned in cooperation with relevant supervisors in order to be effective in providing liquidity assistance in times of stress. I call on the current and future generations of central bankers and supervisors to jointly work on the task without delay, because the next crisis is almost certain to be another one of a global nature.

4. The Secret to Successful Crisis Management

Thus far, I have focused on the LLR function as performed by central banks. But as a central banker who survived the two crises at the frontline, I want to give my views on a broader issue of crisis management. Here, I will touch on the secrets or tips for successful crisis management as I see it, based on the successes and failures in our actual dealing with the crises. Again, there are three such points.

The first point is "***bad news first".*** Both in Japan's home-grown financial crisis of the 1990s and the GFC, the authorities overlooked the symptoms in the early phase of the crises. It may be human nature to turn a blind eye to news that is apparently unfounded or unbelievable. But it is the bad news, however unpleasant they may be, that must be shared among the relevant parties immediately. It is a prerequisite for timely action in the right direction should the undesirable become reality.

The second point is “***prepare for the worst and pray for the best***”. In both crises, the authorities initially grossly underestimated the potential magnitude of the losses and the consequences on the economies. In retrospect, one cannot deny elements of wishful thinking were at work back then. In a crisis situation, the authorities should have courage to see the reality and prepare every means to withstand the worst possible scenario, even though the probability may look small. Only then, can they pray for the best.

The third point is “***strong commitment and singleness of purpose***”. Crisis management is a defensive engagement that neither praise nor glory awaits. All the more for that reason, officials of central banks and supervisory agencies must unite in their commitment to restoring financial stability and share the singleness of purpose. I recall that for those who were at the frontline dealing with the crises, exceptional dedication was a common virtue. Memories fade and time may come when many of them will have left their institutions. It is therefore critically important to ensure that invaluable experiences including the skills of crisis management be kept and carried forward to future generations as institutional memory.

(Concluding Remarks)

With Japan’s financial crisis and the GFC now behind us, the financial world today appears to be a safer place, thanks to more stringent global financial regulations and better governance practices in the private sector. Still, crises may come, perhaps in different forms, but certainly with their global nature, given the interconnectedness of financial systems of today. But we can be better prepared for dealing with future crises by addressing the challenges that I talked about today and by developing tools, building on our sometimes bitter experiences of the past, to effectively contain the crises.

As I speak, my thoughts are with those people in the public sector and private sector alike, who struggled to overcome the severest days of the crises and didn’t hesitate to make sacrifices. So much is owed to them for guiding us to where we are today. They should not be forgotten.

We have come a long way. As we are about to leave the Heisei years behind us and enter into a new era, this is probably the right moment to remember the people we worked with, their dedication and self-sacrifice, with our renewed and reinforced commitment to address the remaining challenges for the sake of financial stability.

This concludes my speech.
Thank you very much for your attention.