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Reconsidering methods of curbing liquidity risk

From the perspective of individual banks, the liquidity ratio restrictions now being augmented are only meaningful to the extent that they form part of a comprehensive risk management framework that includes a review of the business lines and business continuity plans. Such restrictions should take into account the unique characteristics of individual banks and national financial systems. We should also remember that the liquidation of assets envisioned in these regulations will result in greater uncertainty. To avert systemic risk, these restrictions need to play a mutually complementary role with the policies by central banks and supervisory authorities, eg (1) macro-prudential policies to prevent the accumulation of problem assets and (2) LLR policies and other crisis measures.

## Introduction

Efforts to reduce liquidity risk at banks financial represent a pillar of the review of financial regulation. Many countries are now adopting or augmenting liquidity ratio requirements.

As recent BIS reports have made clear, cases in which liquidity risk management did not keep up with institutions' expanding business can be found among some largest banks, and not just those firms that failed during the recent crisis. To that extent, I think a case can certainly be made that changes are needed. But it is unclear whether it is appropriate for such efforts to focus on liquidity ratio requirements, which have been under discussion. I would like to re-examine this issue in light of the recent crisis.

## Bank perspective: sources of liquidity risk

The end of a bank as a going concern due to an inability of financing creates the economic costs. Liquidity risk controls can play an important role in preventing such events.

While it may be possible in theory to envision a sound bank being unable to obtain financing, it is difficult to point to any actual examples. I think the central bank would step in to prevent such a bankruptcy by using the discount window, or other banks would provide liquidity via settlement systems.

In practice, nearly all bank failures are the result of a disruption of the banks' access to its usual sources of funds because of concerns about some aspect of its business. Most of the institutions that failed in the current crisis and in Japan's financial crisis in the 1990s did so because the falling value (or the risk of such a fall in value) of the problem credits these banks held in large quantities prompted the funding entities to decide that they should cut off the supply of funds before they take a significant hit on their own exposure to the institution. The other common pattern was that of a major scandal. In this case, funding entities began to worry about a decline in the institution's value as a going concern and decided to stop supplying funds, thereby resulting in the institution's failure.

## Bank perspective: comprehensive risk management

Therefore, the banks' management should address business problems before they deal with liquidity problems.

It goes without saying that they must respond in the event a bank accumulates a large portfolio of problem credits. But when a business is dependent on frequent access to large amounts of short-term funds, institutions need to consider seriously whether they should remain in that business. They should be required to come up with alternative funding methods and asset liquidation plans that would enable the business to continue or allow it to be smoothly downscaled in contingencies. The recent crisis made it clear that such plans are particularly important when the bank holds assets or raises funds in a foreign

currency. In some cases, such assessment may determine the need for a change in the business. The executives need to come up with this type of business design or a BCP for raising funds or liquidating assets based on the assessment.

Many failed banks blame their failures on unfounded rumors in the markets. Such self-realizing failures have been the subject of theoretical research and are difficult to avoid as long as banks serve as liquidity transformers. In my view, however, in most cases the concerns harbored by fund providers were on the mark, something that became clear after the fact when it became clear what sorts of assets were being held by the failed banks. What they should have done was to provide adequate disclosure and responded persuasively to market concerns before the liquidity crisis hit.

Clearly, the fundamental way to curb liquidity risk is for banks to engage in proper risk management across their business lines. Trying to rein in liquidity risk alone without engaging in such efforts is like arguing that, regardless of their causes, everything will be fine if we can just get inflation. In other words, it is an attempt to treat the symptoms without understanding the underlying cause.

In addition, to the extent that the liquidity situation at individual banks varies with business characteristics and the asset-liability structure, efforts to control liquidity risk cannot be the same for all firms and will ideally be carried out based on individual agreements between the authorities and financial banks. From an international standpoint, the appropriateness of a given response should be assessed only after taking into account the characteristics of that nation's money market and its central bank's tools for supplying liquidity. In terms of the framework of Basel II, this is an the area where we need the approach of Pillar II.

In contrast, we should note of the fact that the primary focus of efforts to curb liquidity risk appears to be strengthening liquidity ratio requirements. This should be welcomed if the purpose of the new rules is to set a minimum standard for the management of liquidity risk that is to be achieved as part of efforts to improve overall risk management for financial institutions. But I think the recent

crisis has made it clear that the adoption of such ratios creates a tendency for institutions to focus exclusively on the number, which can impede efforts to coordinate responses in different countries.

Nonetheless, responses tailored to individual banks will continue to suffer from a lack of transparency and present a heavy administrative burden. Accordingly, I think that, at least for systemically important institutions, national authorities will need to reach agreements with these banks on an optimal framework for liquidity risk management and supervise the implementation while explicitly taking into account the unique characteristics of individual banks and national financial systems described above. National authorities should then find it quite possible to inform their counterparts in other countries and win their understanding and acceptance through a college of supervisors or other international body, thereby achieving a level global playing field. I think the some of the necessary groundwork is already being laid.

### Financial system perspective: relationship with systemic risk

Constraining liquidity risk at banks is even more important as a tool for preventing systemic risk than as a way to prevent the failure of individual banks. In the review of financial regulation, authorities have emphasized not only its role in making funds and securities settlement more robust but also its ability to prevent the transmission and amplification of systemic risk by reducing liquidity risk at individual banks.

In this regard, I think the crisis has taught us a number of things that run counter to traditional views of the proliferation of systemic risk.

First are the relevant mechanisms. The general interpretation is that a liquidity-driven failure of a bank will lead to fund-raising difficulties for many banks via inter-institution settlements or the settlement system in general. In the current crisis, however, there were a number of cases in which liquidity problems at (or the failure of) one bank had a serious impact on the ability of other banks (eg foreign banks) to obtain necessary financing.

This kind of "invisible" connection is based on the view that unrelated banks are subject to—or are suspected of being subject to—the same risks as those revealed at the banks where the crisis first emerged. In the US, financial institutions held large portfolios of problem assets in the form of securitized assets. In Japan, the problem lay in loans to specific sectors of the economy. In both cases, institutions holding large amounts of the assets in question suddenly faced a cut-off of funding, triggering a liquidity crisis. This is generally rational behavior from the perspective of lenders, although they may have overreacted in some cases. In a crisis, the market value of such assets can plunge abruptly, substantially impairing the equity of financial institutions holding them.

That is not to say that traditional systemic risk can no longer be transmitted via the settlement system. In the current crisis, however, a chain reaction of settlement failures was effectively prevented by central bank fund-supply initiatives—including lender-of-last-resort efforts—and government guarantees of bank liabilities.

A second lesson concerns the impact of efforts to rein in systemic risk. Banks cannot completely eliminate liquidity risk so long as they are serving as liquidity transformers. However, I think this fragility—which is an essential component of the financial system—can be reduced by the diversification of funding sources. For example, diversifying funding sources should even out the volume of funds withdrawn at various points in time from individual banks. Even if individual banks are dependent on fund sources with specific attributes, I think the sharing of funds with banks reliant on sources in other countries could mitigate the risk of liquidity-driven failures.

That said, it would be difficult to expect significant benefits from diversification if a large number of banks in numerous markets simultaneously found themselves exposed to liquidity stress. During the recent crisis, banks' funding problems surfaced simultaneously and on a global scale. Once a large number of financial institutions are found to be holding the same kinds of problem credits, fund-supplying entities are likely to reduce their exposure. This kind of risk aggregation have been repeatedly observed (although the specific assets may differ), including Japan's previous financial crisis.

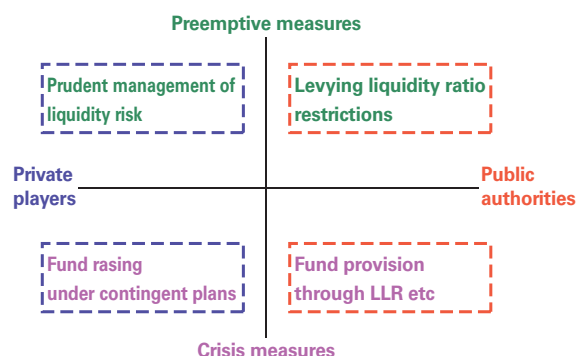
### Financial system perspective: significance of liquidity ratio restrictions

One implication is that preventing fire sales of problem credits by banks experiencing stress is important to avert a systemic impact. It is impossible to stop the market value of such assets from falling, as by definition they are troubled. However, fire sales by banks desperate for funds can cause the value of such assets to overshoot on the downside, amplifying systemic impacts via invisible interconnections. This is also one of the reasons that central banks in the leading economies purchased assets in the recent crisis under the rubric of "credit easing."

The use of liquidity ratio restrictions is important in that it seeks to reduce the impact of these connections. But we need to keep in mind the assumption that the high-quality assets that represent the numerator in this ratio will be liquidated in the event of funding difficulties. Naturally, such assets enjoy greater market liquidity than problem credits at normal times. But when a large number of banks experience problems and engage in simultaneous asset sales, there is no guarantee that the market will remain liquid. As the recent problems in Europe have shown, even government bonds can become problem assets, and a single bank can trigger systemic risk simply by attempting to sell a large package of assets.

Accordingly, liquidity ratio restrictions may help mitigate the systemic risk, but they are not in themselves a sufficient response and can also be counterproductive. If

Exhibit . liquidity measures for management of systemic risk





asset sales by distressed banks in an attempt to enhance liquidity sparks concerns about systemic risk, there is little doubt that the central bank will need to step in and loan funds against the collateral of “good” assets.

This is something that both central banks and supervisory authorities would like to avoid in order to prevent moral hazard. I think the case can be made that liquidity ratio restrictions should be adopted with an eye to preventing moral hazard while keeping in mind the possibility that they will lead to systemic risk. In an ideal world, the central bank or supervisory authorities would have dealt with the problem before moral hazard became an issue. For that to happen, the authorities need to prevent the simultaneous accumulation of problem credits by a large number of financial institutions, as noted above. Once again, we can see that a macro-prudential policy by central banks and supervisory authorities is important to reduce systemic risk.

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