

August 22, 2009

Bank of Japan

# **International Policy Response to Financial Crises**

Remarks at the Symposium Sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming.

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### Introduction

I will explore the future of international coordination between central banks in the wake of the current financial crisis. Here, I mean by coordination between central banks that they attempt to respond to and stave off a global crisis effectively in an organized way without any outside pressure.

The current crisis has posed enormous challenges on many fronts to policymakers. As the starting point for discussing those challenges, I think it is important to highlight three facts. First, the global economy has encountered a crisis more frequently in the past 20 years than before. Second, the current crisis has grown literally into a global crisis. The global economy has contracted sharply since the fall of 2008, as often described as falling off a cliff. By contrast, the prior crises such as Japan's post-bubble period and the East Asian crisis still remained local, even though they exerted significant adverse effects on the domestic or regional economy.<sup>1</sup> Third, the soundness of financial institutions before the crisis differed significantly between those countries in question. Asian financial institutions, including Japanese institutions, as well as Canadian and Australian ones, had smaller exposure to complicated structured products, compared with U.S. and European institutions. Those three points provide a sound basis for considering how to forestall a crisis.

## **Causes for Global Financial Crisis**

Here, I will try to summarize some stylized facts about the unfolding of crises, including the current one. During a pre-crisis period, benign economic conditions, just like the "Great Moderation" prior to the current crisis, usually prevail for some time, and the risk-taking attitude of economic agents becomes aggressive. In economic analysis, economic agents' preferences are assumed to remain unchanged over time. But, in reality, risk perception becomes optimistic and risk tolerance is elevated under benign economic conditions.

<sup>&</sup>lt;sup>1</sup> Japan's 1990s is often referred to as the "lost decade." For the appropriateness of such characterization, see Shirakawa (2009a).

Unfortunately, our knowledge of a mechanism of such endogenous changes in the risk-taking attitude, or risk-taking channel, is quite limited. Institutional arrangements, such as regulation, valuation, and compensation, shape incentives at a micro level. Given institutional arrangements, an actual implication of such incentives is importantly influenced by the financial and economic environment at a macro level. In that respect, low inflation and high growth coupled with low volatility of the two certainly play an important role in fostering bullish sentiment. In addition, a sense of unlimited availability of liquidity transforms such bullish sentiment into excessive risk-taking.

In the process of risk-taking, financial imbalances are being accumulated in various forms, such as expansion of credit and leverage, an increase in maturity mismatches, and a surge in asset prices. The build-up of financial imbalances is hardly sustainable over time and a balance sheet adjustment eventually takes place. The adjustment initially proceeds in a gradual pace. Then a crisis comes to the surface in the form of a severe liquidity shortage triggered by some shocks, and it deepens when confidence among financial market participants collapses. Market liquidity declines in wide-ranging markets and an adverse feedback mechanism starts working between the financial system and the real economy. Capital shortages at financial institutions become apparent, although the very distinction between a liquidity shortage and a capital shortage becomes blurred in a crisis.

Then, what made the current crisis truly a globalized one, in contrast to the aftermath of Japan's bubble burst and the East Asian crisis?

First, during the pre-crisis period, excess liquidity prevailed on a worldwide basis, and thus, the financial imbalances expanded massively and spread out over a wide range of regions around the globe. A variety of factors worked in a complicated manner behind the scenes, and expectations for the continuation of low interest rates among industrial countries certainly played an important role in

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expanding financial imbalances by generating a false sense of abundant liquidity.

By contrast, in the case of Japan's bubble, the outstanding performance in terms of both inflation and growth was to a large extent an isolated phenomenon. Headline CPI for Japan remained already at a low level, just below 1 percent on average between 1985 and 1989, whereas that for G-7 excluding Japan and Germany still remained around 5 percent. The overall picture of inflation performance remained almost unchanged when using the core measures, like excluding food and energy prices. Thus, there was virtually no synchronization in expectations for prolonged low interest rates on a worldwide basis.

Second, the increased interconnection between financial institutions made the adjustment in the current crisis more acute and globally synchronized. Financial institutions had become highly interconnected on a worldwide basis before the crisis. A case in point is a surge in cross-border lending. Cross-border lending by banks in industrial countries toward emerging economies continued to increase over time, and has accelerated since 2003. Lending toward Central and Eastern Europe by euro area banks was more conspicuous. That process inevitably involved the expansion of a dual mismatch, that is, a currency and maturity mismatch, which was supported by a sense of abundant liquidity in both domestic and foreign currencies. In the wake of the crisis, fragility stemming from the dual mismatch abruptly exerted severe funding pressures, further deepening the crisis in many countries, including emerging economies.

By contrast, during Japan's bubble era in the late 1980s, the increase in cross-border lending was not globally observed and mostly limited to Japanese financial institutions.

As a related issue, "the global savings glut" is often pointed as one of the causes for the global credit bubble, but I am a little skeptical about that line of argument.

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It is true that savings by emerging economies are one of its determinants, since global real interest rates are determined so as to equate the savings and investment in the global economy. To understand the phenomenon of the global credit bubble, however, gross capital flows are far more important than net capital flows. The gross capital flows do not necessarily correspond to the savings-investment balances at a national and regional level. In fact, it was euro area banks that strikingly expanded cross-border lending, while the euro area as a whole did not register a current account surplus.

#### International Coordination: Assessment on the Current Crisis Responses

To the extent that a crisis becomes increasingly globalized, greater cooperation among policymakers will be called for. How should policy responses so far be assessed from the viewpoint of international coordination?

I will start with positive developments. First, governments and central banks in many countries have carried out aggressive macroeconomic policy responses to stave off a significant deterioration in economic activity. Second, many countries have provided public capital to financial institutions and instituted government guarantees on their liabilities. Third, coordination between central banks in conducting money market operations has advanced significantly. A case in point is the U.S. dollar funds-supplying operations at many central banks, backed by the U.S. dollar swap arrangements with the U.S. Federal Reserve. Fourth, the prior collaborative efforts by central banks and private financial institutions in reducing settlement risk have proven effective. The functioning of currency swap markets, which plays a key role in linking interbank markets in many countries, crucially depends on perceived settlement risk. In that regard, the continuous linked settlement (CLS) mechanism, which started in 2002, proved quite effective. Without such a payment-versus-payment service for foreign exchange transactions, the global financial system would have been in deeper turmoil through the amplification of counterparty risk due to further risks associated with time zone differences.

Of course, it is a hard fact that various limits exist in international coordination. First, measures to stabilize the financial system in each country have hastily been introduced without necessary harmonization between the countries. That has created some gaps in the range of government guarantees for depositors and creditors between the countries, thereby triggering sudden international shifts in deposits. Second, financial institutions have been increasingly asked to serve for the domestic "interests" and sort of "financial nationalism" seems to have emerged. Third, in some countries, the aggregated balance-sheet size of domestic financial institutions expanded far beyond nominal GDP, thus making it increasingly difficult to take necessary policy actions, including public capital injections.

The observations I have just mentioned indicate the limitations in international coordination, in the sense that the global or world-wide optimum has not necessarily been chosen. Like it or not, that is a reality and such limitations do arise for a couple of reasons. First, with public money injections, a government is in a position to pay more attention to taxpayers' interests, and naturally has incentives for ring-fencing interests of its own country. Second, bankruptcy legislation for financial institutions differs between countries. As the Bank of England Governor Mervyn King put it, "global banking institutions are global in life, but national in death."<sup>2</sup>

## **Challenging Conventional Wisdom**

The limitations I have just mentioned are, for the most part, sort of a coordination failure due to the very existence of sovereign nations. We cannot deny the importance of making efforts to avoid a coordination failure, but it seems more productive for each policymaker around the globe to address the common factors causing crises. In that regard, we should take seriously the fact that the frequency of crises has increased in the last 20 years, and the crises have also become increasingly globalized. For those reasons, it seems natural to reflect

<sup>&</sup>lt;sup>2</sup> See Financial Services Authority (2009).

on the relationship between that fact and conventional wisdom underpinning monetary policy, and financial regulation and supervision.

Put it simply, the prevailing philosophy among central banks and other policy authorities rests on three forms of "pre-established harmony," if you please. First, macroeconomic stability can be achieved by monetary policy, which pursues low and stable inflation. Macroeconomic stability is complementary to financial stability. Second, financial stability can be achieved by pursuing a microprudential approach. To that end, the authorities need to properly regulate and supervise individual financial institutions. As a key tool, capital adequacy regulation has become increasingly sophisticated to calibrate risk involved in a specific activity. Third, financial institutions with a sufficient capital position can easily raise liquidity in financial markets. Thus, liquidity consideration has been assigned only an ancillary role in regulation and supervision.

## Way of thinking about monetary policy management

It is a good time to review the prevailing philosophy in light of the current crisis.

On the first form of the pre-established harmony on macroeconomic stability, monetary policy aimed at low and stable inflation was so successful in the past two decades. Oddly, such success of monetary policy also turned out to be a part of the problem. Given human psychology and institutional arrangements, the unfounded expectations for the continuation of low interest rates were responsible for creating perverse incentives under benign economic conditions. Such perverse incentives in turn induced the process of accumulation and manifestation of financial imbalances, thereby destabilizing the economy in the longer term.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> See Rajan (2006) and Bank for International Settlements (2009) for the further discussion on perverse incentives under benign economic conditions.

The issue we are facing is sometimes inappropriately described as an intra-temporal trade-off between price stability and financial stability. The actual trade-off here is an inter-temporal trade-off between the current and the future economic stability. Lively debate on the possible role of monetary policy is going on. Monetary policy alone cannot or should not stave off a bubble. Indeed, it bears a more modest but important task. Monetary policy should avoid accelerating a bubble through creating unfounded expectations for the continuation of low interest rates, since incentives are underpinned ultimately by the financial and economic environment at a macro level.<sup>4</sup>

#### Capital adequacy regulation and incentives

The second form of pre-established harmony on microprudential policy also needs to be reexamined. A macroprudential perspective is definitely needed in assessing risks as well as in designing regulations.

The very fundamental problem is how to stem intrinsic moral hazard due to the limited liability of stockholders. In the past 20 years, the financial regulatory and supervisory authorities have attempted to tighten capital adequacy regulation. With low leverage, however, financial institutions faced difficulty in achieving sufficiently high return-on-equity to satisfy bank stockholders, which then induced the expansion of "shadow banking."<sup>5</sup> An alternative business strategy was to raise return-on-asset, but the franchise value of financial institutions tended to be declining over time due to financial deregulation and intensified competition. The declined profitability put pressure on some financial institutions to take an excessively high risk.<sup>6</sup>

<sup>&</sup>lt;sup>4</sup> See Shirakawa (2009b, c) for further discussion on implications of incentives at micro- and macro-level on a financial crisis.

<sup>&</sup>lt;sup>5</sup> Gorton (2009) points out the importance of understanding the "shadow banking system" as a genuine banking system in designing new financial regulation.

<sup>&</sup>lt;sup>6</sup> See, for example, Institute for International Finance (2009) for the discussion on the profitability of financial institutions and the stability of the financial system as a whole.

The regulatory and supervisory authorities count on self-discipline at private financial institutions as well, because the authorities are well aware that they are unable to monitor every detail of business activity at private financial institutions. At the same time, as the authorities hardly count solely on such private initiatives, they impose regulations on private financial institutions to avoid the manifestation of systemic risk. Central to the issue is how to balance public regulation and self-discipline at private financial institutions as well as capital adequacy regulation and other forms of public regulation.<sup>7</sup>

Given the limited liability of stockholders, strengthening capital adequacy regulation alone will not be effective enough to constrain the short-sighted behavior of stockholders and business executives. In any event, the most important challenge to ensure financial stability is how we can strengthen credit underwriting discipline and liquidity management, which, after all, provide the most reliable protection for the sound financial system.<sup>8</sup>

In that regard, it should be noted that the pendulum has swung back and forth in the discussion of models for financial regulation and supervision. Simply put, the Asian model was downgraded after the Asian crisis, and the Anglo-Saxon model was also downgraded this time, although the exact meaning of those models has remained vague. It should be also noted that the soundness of financial institutions before the crisis differed between the countries. With that observation, I do not intend to suggest that one model is superior to the other. Rather, that seems to suggest the importance of versatility of financial regulatory and supervisory models.<sup>9</sup> In view of the situation in each country, we need to think over what kind of combination of public regulation and self-discipline is

<sup>&</sup>lt;sup>7</sup> Nishimura (2009) points out the importance of striking a balance between benefits and costs in designing financial regulation.

<sup>&</sup>lt;sup>8</sup> Fisher (2009) emphasizes the importance of incentives as the principle lesson from the current crisis.

<sup>&</sup>lt;sup>9</sup> See Goodhart (2009) for an assessment of the Anglo-Saxon model of banking and financial regulation and supervision in light of the current crisis.

desirable, and what kind of combination of capital adequacy regulation and other forms of public regulation is desirable. For example, even in the age of globalization, the factors influencing incentives, such as executive compensations, differ considerably between the countries.

## Liquidity transfer

Turning to the third form of pre-established harmony on the availability of liquidity, as shown by the experience of the current crisis, counterparty risk, whether actual or perceived, plays a crucial role in aggravating a crisis. Even a well-capitalized financial institution cannot easily raise liquidity in financial markets in a crisis. Thus, we should put more emphasis on building financial infrastructure less vulnerable to shocks. One of the key actions here is to ensure smooth liquidity transfer across currencies, time zones and regions. The payoff of such efforts will be more solid and substantial, even though it does not make the headlines.

## Necessity of Cooperation and Coordination between Central Banks

In relation to the three challenges above, I will next explain the necessary efforts in the area of cooperation and coordination between central banks.

First, regarding monetary policy, each country should make every effort to put its own house in order. Central banks also need to put more collaborative efforts into making an analysis of global financial conditions and enhancing further information sharing. I find it increasingly important to monitor the international dimension of the risk-taking channels with regard to the transmission mechanism of monetary policy. That dimension is typically observed as the common lender channel, by which I mean internationally active financial institutions playing a role in transmitting monetary policy effects, and global investors taking carry-trade positions in various forms.

Next, in terms of financial regulation and supervision, putting its house in order in

each country is again the most important principle for ensuring financial stability. The experience following the collapse of Lehman Brothers shows its importance succinctly. On top of that, it is crucial to make further effort to redesign the regulatory framework to stave off a future crisis. In that regard, we are working definitely in the right direction to embrace a macroprudential perspective. As we are charged with so many tasks in our agenda, some caution should be needed not to lose a holistic view. G20 and Financial Stability Board (FSB) have correctly proposed to review the capital adequacy standards, with a reservation of implementing most of the new rules once recovery is assured.<sup>10</sup> Such a policy direction seems relevant in light of the amount of risk actually taken by internationally active financial institutions in recent years. In implementing the policy, however, we also need to pay attention to the endogenous changes in financial institutions' risk-taking stemming from strengthened capital regulation.

Finally, coordination between central banks is required in the area of money market operations, and, more generally, banking policy. A crisis is likely to be amplified by concern over funding liquidity. That underscores the importance of the efforts to transfer liquidity smoothly on a global basis.

U.S. dollar funds-supplying operations, carried out under coordination between major central banks, have been highly effective under such conditions. In that case, other central banks than the Fed have an incentive to implement operations to secure the stability of domestic financial markets and domestic financial institutions. The Fed also has a natural incentive to secure the stability in U.S. dollar denominated financial markets. As a result, U.S. dollar funds-supplying operations are mutually beneficial for both the Fed and other central banks. That point is markedly different from "international policy coordination" in monetary policy, easily placing strain on bilateral relations in key variables, such as foreign exchange rates and the balance of payments.

<sup>&</sup>lt;sup>10</sup> See G20 (2009) for the proposal for strengthening financial regulation and supervision.

Through the current crisis, we have reconfirmed that it is important to make currency swap, repo, and other collateralized markets more robust, and that central banks need to promote private initiatives in that direction. From that perspective, central banks need to make further coordination in providing liquidity, accepting cross-border collateral, and extending operating hours for the payment and settlement systems provided by central banks.

#### **Concluding Remarks**

In closing, I emphasize the importance of promoting human interaction in further developing coordination between central banks.

Since the summer of 2007, central banks have communicated with each other intensively at various levels, from top central bankers to mid-class staffers using various tools, such as e-mails, conference calls, and face-to-face conversations. Such efforts have contributed to preventing the crisis from worsening further.

Financial markets are inevitably incomplete in economists' terminology, and it is professional judgment that fills the gap inherent in the incomplete contracts. In that sense, the deepened mutual trust, the accumulated practical and operational know-how, and the strong network of central banks, which have been established during the process of crisis management, provide a basis for substantive cooperation. A new international financial system, if that in fact comes true, will emerge from the wealth of human network.

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