

April 2012

*Japan Financial Report*

## ***Financial Markets Grope for Stability and Growth:***

### ***Nagging Impaired Loan Assets, Currency Worries***

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#### ***Report 1***

### ***Quick Exit Strategy from Monetary Assistance Measures Needed***

#### ***– Series of Assistance Measures Add to Bank Risks–***

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Since the global slump beginning in 2008, the government has implemented emergency policies in the form of various financial assistance measures. Delays in working out an exit strategy for the time when these policies expire have given rise to a number of diverse risks which could have substantial impact on the financial status of banks. In the present report, we have identified and analyzed various risks that could threaten the financial status of Japanese banks once the various financial aid measures which the government and other authorities have implemented are allowed to expire. In addition, we also examine risks arising from regulatory factors as well.

Two potential risks may be cited as having arisen as a result of the financial assistance measures implemented on behalf of banks, including those associated first with the easing of criteria governing classification of impaired loan assets and the Small and Medium Enterprise (SME) Financing Facilitation Act, and second with the safety net guarantees granted under the credit guarantee system. These financial assistance measures were originally intended to rescue SMEs which have borrowed funds, but they may now give rise to moral hazards both for borrowers and lenders. The relaxation of standards governing reporting of impaired loan assets by banks and the increase in credit guaranteed loans have reduced credit charges and stabilized revenues. However,

these are not permanent measures, and an exit strategy has been called for since last year. Moreover, a third risk may be cited as arising from regulatory factors, including the exceptional measures applying to the calculation of capital asset ratios and regulations governing double gearing, sharing capital among financial institutions.

**Table 1. Risks Facing Banks**

B/S	Loans	Decline in loans outstanding; Easing of impaired loan asset criteria
	JGBs	Excessive interest rate risk of regional banks
	Stock investments	Cross shareholding disclosed on FY2010 balance sheets
	Equity capital	Exceptional measures for domestic-criteria banks; double gearing regulations
P/L	Loan revenue	Narrowing margins
	Unrealized gain/loss	Low interest rates and unrealized gains on bonds
	Credit charges	Growth in Credit Guarantee Assn. use; Financial Inspection Manuals easing

In the event these risks should become real problems, the consequences for banks' financial condition might include the following:

***(1) Easing of Impaired Asset Criteria; SME Financing Facilitation Act***

Upon estimating the size of potentially impaired loan assets which under original criteria should be classified as impaired, we find that banks held from ¥8.2 to ¥10.8 trillion in potentially impaired loan assets as of the end of FY2010. We also find that, if the original criteria governing classification of impaired assets were restored and an estimate made of the amount necessary to provide for loan loss reserves, banks would have to set aside additional reserves of about ¥1.3 to ¥2.1 trillion.

***(2) Safety Net Guarantees under the Credit Guarantee System***

Although the balance of outstanding loans to SMEs has fallen, the amount of guaranteed loans outstanding has risen owing to the strengthening of the credit guarantee system. The system was reinforced as an emergency measure following the Great East Japan Earthquake, and access to credit lines was broadened. However, this was a temporary emergency measure and not intended to continue for the long term. From the perspective of preventing moral hazards arising for banks, moreover, the government should consider gradually replacing the present system of broadening the guarantees to 100% with the former liability sharing system, and as an intermediate stage, for example, use a system in which banks with high subrogation rates are asked to bear the extra burden.

***(3) Exceptional Measures in Computing Capital Asset Ratios; Double Gearing Regulation***

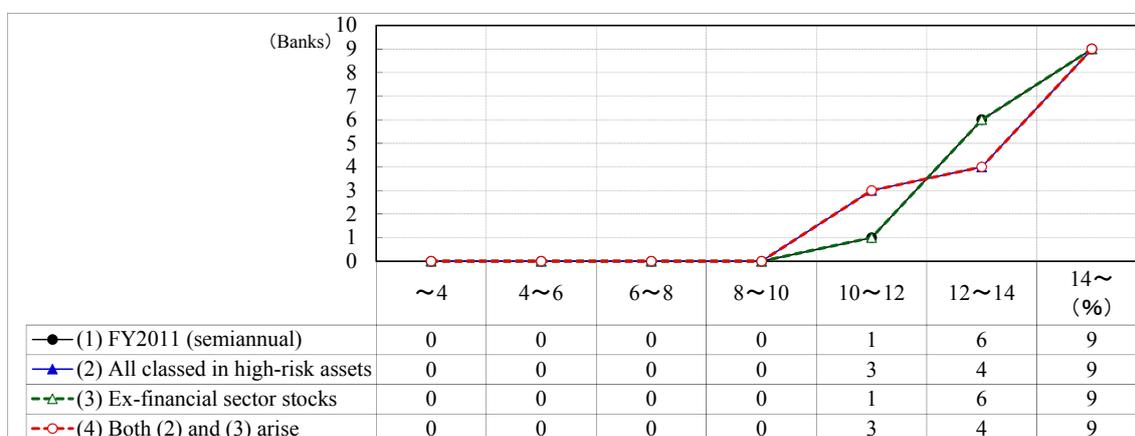
In force since December of 2008, the exceptional measures applying to the computation of capital asset ratios provide that unrealized losses on Japanese government securities (JGBs), stock shares and the like are not to be reflected in computation of equity capital, which raises the possibility that present levels of equity capital may be overvalued in comparison with levels computed prior to the measures. Double gearing regulations require that banks deduct from their capital any mutual

holdings of capital instruments issued by other financial institutions, as in the case of cross-shareholding among financial institutions. Under Basel III rules, the scope of application is being broadened and the methods for deduction are becoming stricter. We have estimated the impact on equity capital of a broadening in the application of these deduction requirements based on available public data and found that capital asset ratios would likely fall by a maximum of 0.25%.

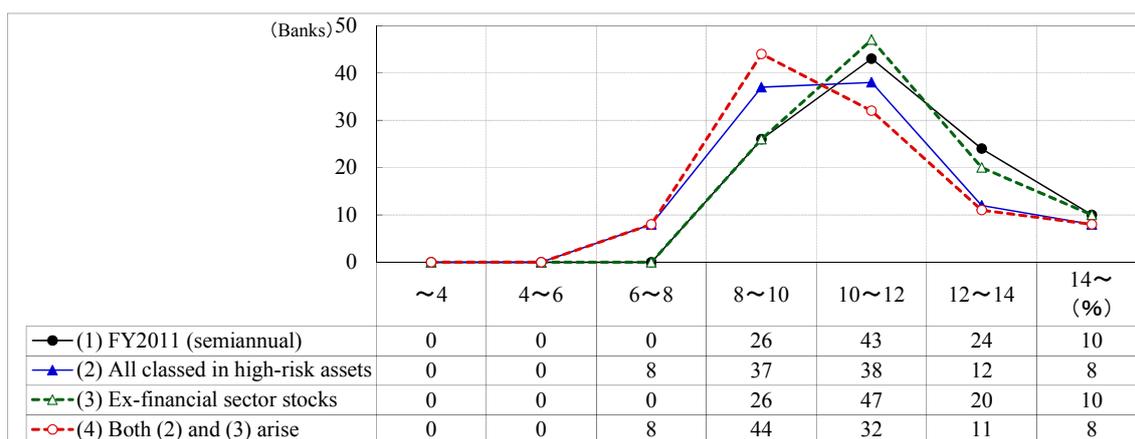
Figure 2 shows the impact on equity capital from the surfacing of potentially impaired loan assets and tightening of double gearing regulations. The impact on banks subject to international capital adequacy standards would be limited, nor would any significant impact arise for individual banks subject to domestic standards. But if both these developments occur at the same time, distribution skews to the left, i.e., the risks for capital cannot be ignored.

**Figure 2. Risks for Capital Asset Ratios**

**Banks subject to int'l criteria (16 banks)**



**Banks subject to domestic criteria (103 banks)**



Note 1. According to the definition of “high-risk assets” adopted here, when impaired loan asset criteria are restored to their original form and the full amount of potentially impaired loan assets (¥10.6 trillion) is classified as “high-risk assets,” the resulting increase in loan loss reserves will be deducted.

Note 2. “Deduction of financial shares” means deduction of the full amount of shares in financial institutions (excluding domestic banks) held by each bank other than those held purely for investment purposes.

Sources: Disclosure materials of banks, NEEDS-FinancialQUEST, Financial and Shinkin Bank Financial Database.

As indicated above, considering the foregoing factors separately, the risks would seem to be limited. But if downside risks suddenly appear following restoration of the pre-crisis regulatory system and the imposition of Basel III rules, the potential impact could not be ignored. In addition, the interest rate risks facing banks also deserve mention since, according to the Bank of Japan, a uniform rise in the JGB yield of just 100 basis points would generate losses amounting to ¥6.3 trillion for domestic banks.

One year after the Great East Japan Earthquake, the need for emergency measures has gradually been reducing. In order to adopt the best escape strategy, the various financial assistance measures should be unwound while the impact of doing so is likely to be small. When this is done, some banks might face a business crisis, but in principle, self-help efforts should be the rule. The response should not automatically assume the use of public funds. Rather, it would be preferable to create a system which helps banks realign on their own.

## ***Report 2***

### ***Can the Dollar-Peg Currency Regime Last?***

#### ***– Rapidly Expanding Currency Markets Increasingly Hard to Control –***

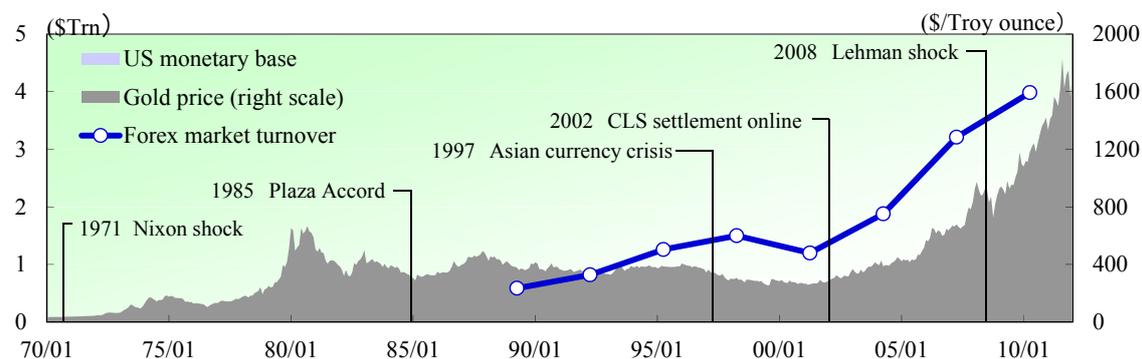
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Since the financial crisis deepened in the wake of the Lehman shock of 2008, many observers have voiced concerns over the impact of wild swings in currency rates on the real economy. In particular, the real effective value of the dollar declined against other currencies by 17% in the two years following March of 2009, when the Federal Reserve moved in earnest to ease credit, which reduced the price competitiveness of Japan and other major nations. The dollar's loss of value eroded the value of foreign currency reserves held by other nations, heightening awareness of the risks involved in holding dollars as a reserve currency.

In this context, the currency markets has continued to grow at an explosive pace far outstripping the growth of global GDP, and the resulting impact has grown to a considerable degree. This raises the question of whether a floating exchange rate system where the dollar is the key currency can be maintained in the future. In order to consider this issue, the present report sorts out the factors and consequences of the manner in which the currency system has evolved up to the present and analyzed the impact that the expansion of the market will have on currency price movements.

**Figure 3. Currency Markets, U.S. Monetary Base and Gold Prices**



Note: Currency market turnover and global GDP based on intraday data.

Source: Bank of International Settlements, Federal Reserve Board, World Bank, Bloomberg.

***(1) The Expansion of Money, the Resulting Collapse of the Gold Standard and Establishment of the Dollar Standard System (to 1973)***

A review of the past from the establishment of the gold standard in the nineteenth century until its collapse shows that the nations of the world were compelled to abandon the gold standards three times, first during the First World War, second after the Great Depression, and third following the collapse of the Bretton Woods system. In the first two instances, the rising demand for gold was the primary cause. In other words, there was an underlying structural problem: the supply of money rose with the expansion of trade and capital transactions, but the supply of gold, to which the value of money was supposed to be pegged, could not keep up. As a result, there was continued downward pressure on the price of money. In order to maintain confidence in their currencies, monetary authorities tried to hold gold as a foreign currency reserve, but the downward pressure on the price of money ultimately reached unmanageable proportions. In 1971, this downward pressure on the price of money was reaching the threshold, and when U.S. President Richard Nixon suspended the dollar's conversion into gold, other developed countries switched to a floating exchange rate system, and the gold standard collapsed along with the Bretton Woods regime.

The Bretton Woods system launched in 1944 was a system which enhanced flexibility because it allowed nations to hold foreign currency reserves in dollars, the supply of which could fluctuate with relative ease. In this way, the dollar became established as the key currency internationally. Under the Bretton Woods system, the Federal Reserve Board of the United States was responsible to the governments of the world for exchanging dollars into gold, so the system could not be maintained unless the Fed limited the supply of dollars. By the 1960s, however, the dollar equivalent of the gold reserves held by the United States had already fallen well below the country's monetary base, forcing it to shift to a floating exchange rate system.

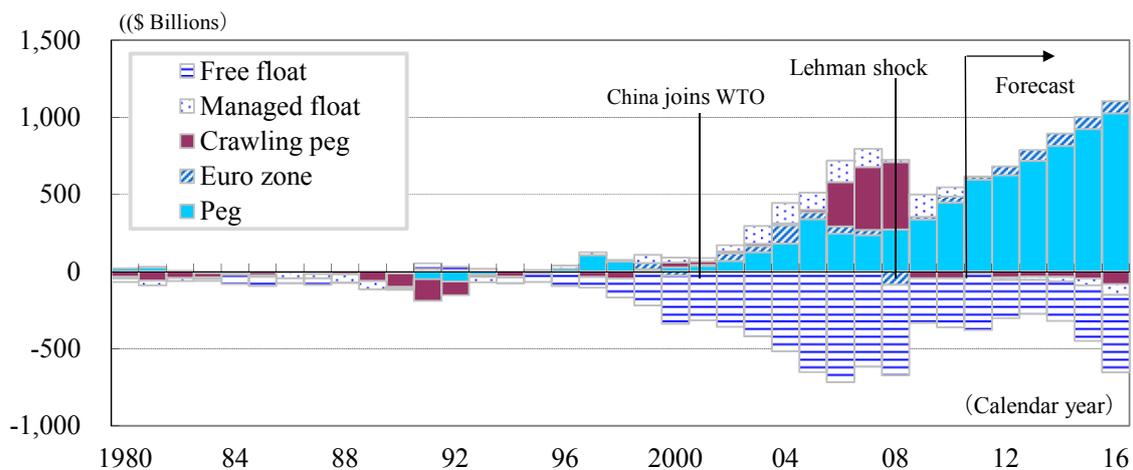
***(2) Structural Problems Worsen Current Account Deficit of Key Currency Nation (1973-)***

The United States maintained a current account surplus for a time after 1973, but the acceleration of President Ronald Reagan's expansionary policies in the 1980s gave rise to an expanding current account deficit. Having served to drive the international economy in the course of their recovery following the Second World War, meanwhile, Japan and West Germany built up substantial current account surpluses. The result was that the G5 nations, mindful of the need to reduce U.S. trade

deficit, agreed in 1985 on the Plaza Accord with a view to stabilizing currency rates among G5 countries and to intervene in coordinated fashion to correct the strong dollar. In this context, the important point is that, even though the dollar was chronically exposed to downward price pressure, its status as the de facto settlement currency in trade enabled the dollar to continue to claim the lion's share of foreign reserves relative to other currencies. Holding by other nations of U.S. Treasuries through foreign currency reserves enabled the United States to finance its deficit and continued to ease downward price pressure on the dollar. As a result, market discipline did not function to correct America's twin fiscal and current account deficits.

As emerging nations boosted their presence in international financial markets after 2000, global imbalances sharply increased. One factor underlying this development is thought to be the rise of China and other emerging economies in Asia which maintain fixed exchange rates. Upon aggregating current account balances according to the category of their currency systems, we find that the current account surpluses of countries with pegged currencies evenly match those with floating systems. This may be considered the result of surplus countries endeavoring to maintain their export competitiveness by selling their own currency. When the Lehman shock occurred 2008 as if to correct this imbalance, volatility in international currency markets rose sharply.

**Figure 4. Current Account Balances Aggregated by Currency Regime**



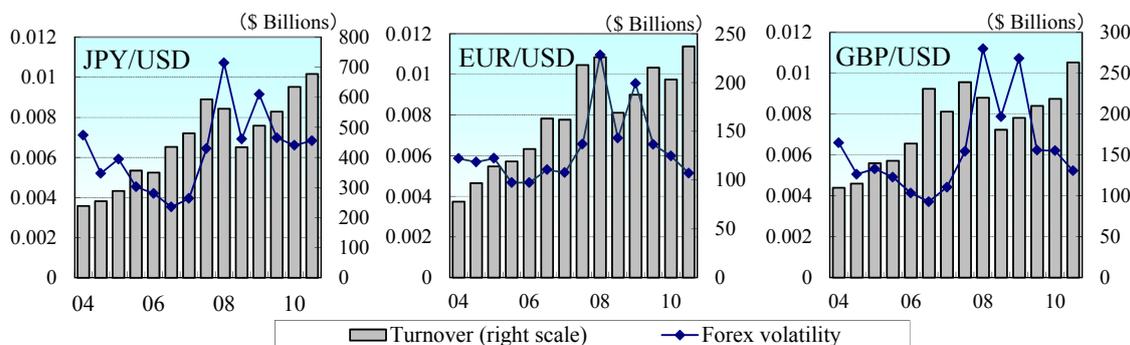
Source: JCER, based on Ilzetki, Reinhart and Rogoff (2008).

### (3) Post-Crisis Rise in Turnover Failing to Offset Volatility

A look at the Bank of International Settlement's survey of turnover in currency markets shows that, although intraday turnover was \$1.2 trillion in 2001, it had risen to \$3.2 trillion in 2007, and ballooning by \$4 trillion in ten years. Contributing most to this explosive expansion was a type of investors the BIS categorizes as "other financial institutions." Included in this category are highly leveraged foreign exchange trades (FX) in which individual investors are counterparties as well as high frequency trades (HFT), in which computers are employed to conduct rapid trading. Through the adoption of electronic broking systems and continuous linked settlement (CLS), trading costs and settlement risks have declined, leading to this kind of increase in participants. Observers believe another factor in this trend has been the expansion of liquidity supplied by central banks of the developed economies since 2008. Along with the rapid growth in trading has come a structurally more complex foreign exchange market involving a business model. In that model, financial instruments business operators act independently to match customer orders separately from the interbank market in the same manner as foreign exchange traders.

With regard to the impact that the expansion of turnover has had on currency price movements, we have examined the correlation since 2004 between turnover, on the one hand, and the volatility of the U.S. dollar (USD) with respect to the yen (JPY), the euro (EUR) and the pound (GBP), after controlling for interest rate factors. We found that there has been a negative correlation in the period between October of 2004 and March of 2008 (the correlation coefficient being -0.5). This finding indicates that the growth of turnover has served to restrain currency rate fluctuations.

**Figure 5. Volatility of Currency Rates and Forex Market Turnover**



Note: Turnover data represent average intraday turnover for April and October in the London market. Forex market volatility is the data after controlling for interest rate factors.

Source: Bank of England, St. Louis Fed, Bloomberg.

On the other hand, in this analysis, no meaningful correlation could be confirmed between volatility and turnover after April of 2008. It was during this time that the subprime debacle in the United States intensified, heightening credit risks between financial institutions even as turmoil continued in Europe due to intensifying sovereign debt problems and other issues. As a result, one could say that, under such circumstances, the expansion of turnover does not function to adequately offset volatility. It is conceivable, moreover, that the growth of turnover could even lessen the impact of currency market intervention by monetary authorities compared to the past.

#### ***(4) Stable Currency Markets and Responsive Coordinated Intervention Needed***

Global money transactions mainly in dollars have been expanding in breadth far beyond real-demand based transactions. As a result, currency systems used in various countries around the world have been compelled to evolve, and despite its dominant role in the past, the dollar is less dominant, accounting for a smaller share of foreign currency reserves, for example. In the context of the European crisis, however, the euro is not likely to increase its share. It could be that the world is entering into a great interregnum in which no single currency predominates. The question is whether the floating rate system where the dollar is the key currency can continue. What we have confirmed here is that foreign exchange markets will be increasingly difficult to control. Another question is how it will be possible to prevent beforehand the kind of currency crises that might freeze up the global financial system. For example, there is likely to be a greater need in the future for the construction of a network for responsive multilateral coordinated intervention among monetary authorities.

### ***Report 3***

## ***Financial Stabilization in Asia with Samurai Bond Market***

### ***– Could Ease Strong Yen and Bring Growth –***

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In the wake of the global financial crisis and the European sovereign debt crisis which followed, the financial markets of emerging Asian nations confront an ordeal of out-flowing foreign capital again. In most Asian countries, financial markets remain in a period of transition, and the safety net plays a large role. In the present report, we propose that one way Japan could help stabilize Asian financial markets would be through measures designed to assist Asian business firms raise capital through the use of samurai bonds.

Emerging nations in Asia attempted to stabilize their financial markets in the wake of the financial crises of the 1990s and emerged somewhat more resilient against shocks. Nevertheless, they have not been able to free themselves from dependence on overseas capital. In considering measures to stabilize Asian financial markets in the future, it is important to clarify precisely what stage the emerging economies in Asia are in as far as the development of their financial markets is concerned. In the following analysis, we will make use of the concept of “financial deepening.” The Index of Financial Depth (IFD) is a composite of total financial claims as a share of GDP and the total of external assets and liabilities as a share of GDP<sup>1</sup>. This index shows the depth of a country’s financial markets and makes it possible to get an overall picture of the expansion and contraction of credit.

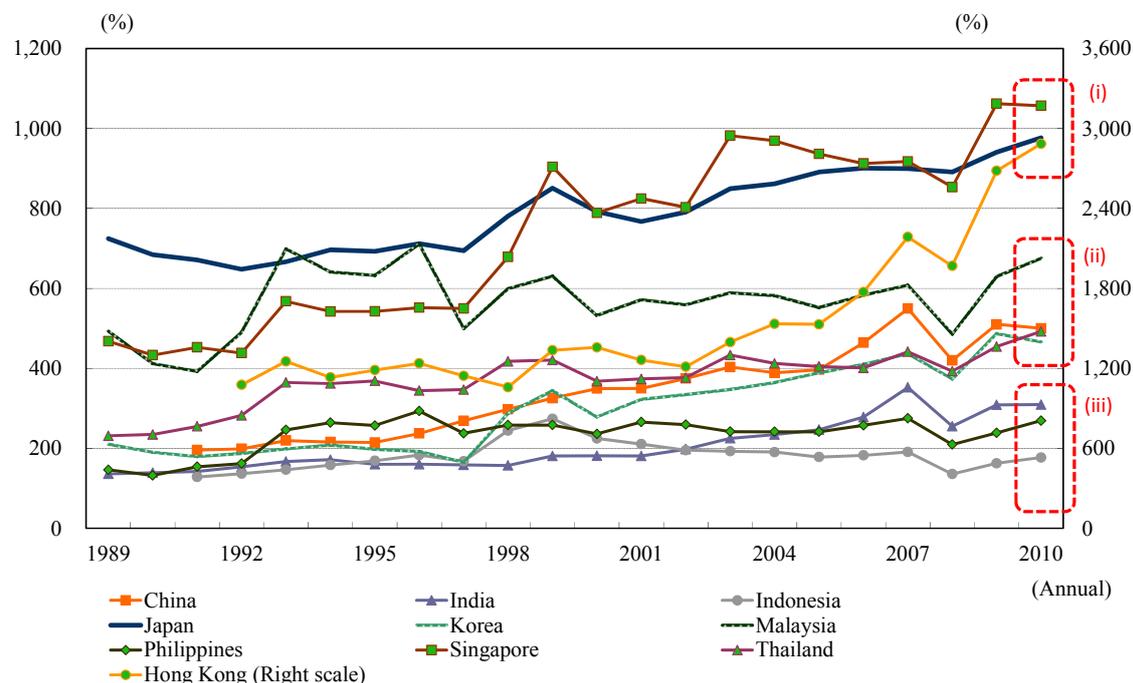
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<sup>1</sup> IFD =  $\frac{1}{2}(D_A + D_L)/Y + \frac{1}{2}(F_A + F_L)/Y$ . (IMF, 2011.)

Figure 6 classifies the IFDs of Asian nations into three groups. The first group of nations includes those in which financial markets have already developed to a sophisticated degree and which experienced only a slight contraction of credit during the financial crisis (e.g., Japan, Hong Kong and Singapore). The second group of nations includes those in which the IFD has been on the rise since the Asian financial crisis thanks to better functioning financial markets but which do not have adequate resilience against financial shocks (e.g., South Korea, Thailand). The third group of nations includes those in which the IFD has advanced sluggishly and financial markets have not made progress in developing (e.g., the Philippines and Indonesia). Note that the level of the IFD in China falls into the second group, but thanks to controls on capital movements, financial markets are increasingly stable.

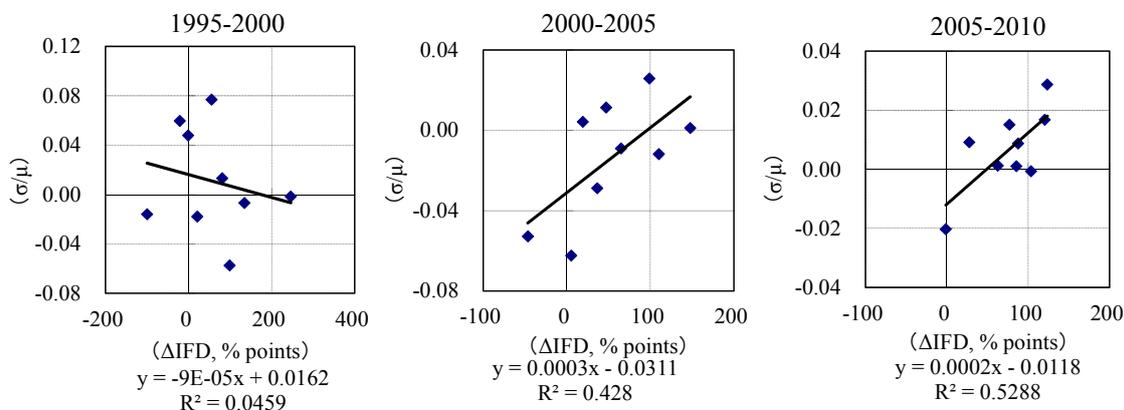
Financial stabilization policies differ according to the stage of a financial market's development. Thus as an indicator of the stability of a financial market, we have used the coefficient of variation ( $\sigma/\mu$ ), or the ratio of the annual standard deviation of a country's currency ( $\sigma$ ) to the mean ( $\mu$ ) of it. If we then plot the relationship of the IFD and the coefficient of variation at intervals of five years (excepting Hong Kong), the variation coefficient rises in tandem with the IFD. This trend likely shows that financial markets in emerging Asian nations are in the transitional stage of deepening and remain vulnerable to shocks, including heightened volatility in currency rates.

**Figure 6. Index of Financial Depth for Asian Countries**



Source: Lane and Milesi-Ferretti (2007), IMF, World Bank, BIS.

**Figure 7. Relationship between Financial Depth and Financial Market Stability**



Underlying the instability of Asian financial markets is the problem of the dual mismatch between currencies and periods. This problem arises in part because Asian companies depend on capital raised from abroad and lack stable capital over the long term. In order to resolve the financing problems of Asian companies, it is important for Japan to provide them with long-term capital and thereby help other Asian countries grow. Samurai bonds would be an effective means of assisting Asian companies to raise yen-denominated funds from Japan having excessive savings. There is great demand for capital on the part of Asian companies for investment in infrastructure and other uses. Given the low interest rates in Japan, meanwhile, institutional Japanese investors are in great need of higher-yield instruments in which to invest. By matching these two needs, Japan would be able to not only to contribute stability in Asian financial markets but to benefit from growth in other Asian countries.

***Proposals Concerning Use of Samurai Bond Market: Specific Proposals***

***(1) Assist Asian Companies in Issuing Samurai Bonds***

Create an environment in which allows for the issuance not only of traditional investment-grade sovereign and corporate bonds but speculative-grade bonds as well. By providing guarantees covering such bonds, the Japanese government and the Japan Bank for International Cooperation (JBIC) could enhance the credit of the issuing companies. Information disclosure could be facilitated through the use of the Tokyo Stock Exchange's professional bond markets.

***(2) Form Samurai Bond Funds***

If fund management companies invested in samurai bonds in the form of bond funds, it would facilitate the work of rating portfolios and make them available to a wider variety of investors. The creation of exchange traded funds (ETFs) would also make it possible for individual investors to benefit from the development of Asian financial markets.

***(3) Formation of Yen-Denominated CDS Market***

In addition to facilitating the management of investor risk, creation of a yen-denominated credit default swap market would also make cash management easier for Japanese exporters doing business with Asian companies. The Tokyo Stock Exchange could facilitate CDS trading by acting as the

central counterparty (CCP). The Tokyo market would develop into a reference market for the credit outlook of Asian companies, making it easier for domestic financial institutions to develop credit-related financial products.

### *Secondary Benefits from Creation of Samurai Bond Market*

#### *(i) Effective Means of Combating Strong Yen*

Since issuers would exchange yen raised in the samurai bond market into their own currencies, it would have the effect of weakening the yen. Providing guarantees for samurai bonds would also enable the Japanese government to create the same effect as that arising from the purchase of foreign bonds.

#### *(ii) Greater Use of Yen as a Settlement (Invoice) Currency in Trade*

Through heightened awareness of available Japanese capital, the samurai bond market would facilitate currency management by companies seeking to do business in Asia and would soften the negative impact on business performance.

### **Reference Works:**

International Monetary Fund (2011) “Financial Deepening and International Monetary Stability,” IMF Staff Discussion Note.

Philip R. Lane and Gian Maria Milesi-Ferretti (2007) “The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, 1970–2004,” *Journal of International Economics* 73, November, 223-250.

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