
A Path for Financial Regulation Suggested by the Euro Zone Crisis¹

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I. A sustained system-wide financial crisis

1. Impasse in fiscal and monetary policy

The global economy appeared to have bottomed in March 2009 and started recovering from the financial crisis triggered by the subprime loan problem, but optimism quickly retreated midway through 2011 on a deepening of the crisis in Europe, concerns over a US economic slowdown, and adjustments in emerging market economies.

In some respects, this rise in uncertainty can be attributed to side effects from the aggressive policies adopted worldwide to keep the crisis from worsening following the September 2008 failure of Lehman Brothers. In other words, governments were pressed into passing fiscal stimulus and bank rescues that eventually led to an expansion of government deficits and increase in sovereign risk. This has shaken confidence in those financial institutions holding the sovereign debt of those countries in particularly dire straits, and created concerns that a serious financial crisis could be reignited.

The monetary policies adopted to deal with the financial crisis included zero interest rates, a relaxation of credit, and other nontraditional policies, but doubts over the efficacy of those policies are strongly rooted, while the policies have also been blamed for causing emerging market currencies to appreciate and some commodity prices to rise sharply. Consequently, as financial uncertainty regains its foothold, governments have limited leeway to put forth effective additional measures.

Furthermore, the use of public funds to bail out financial institutions in response to the financial crisis has been met with strong objections by taxpayers, led to calls to more tightly regulate and more heavily tax financial institutions, and resulted in the development of rules aimed at ruling out the use of public funds as a policy option to deal with crises.

¹ This paper is based in part on "Managing System-wide Financial Crises; A Macro Approach-Some Lessons from the Last Crisis as well as Japanese Experiences in the 1990s," written by this author and Senior analyst Kei Kodachi and presented at the Brookings-Nomura-Wharton Conference on Financial Markets in Washington D.C. on 14 October 2011, updated and added to based on the latest discussions.

Although it has been more than three years since Lehman Brothers collapsed, US unemployment remains above 8%, and opposition to the financial sector, rather than abating over time, actually seems to have grown, as evidenced by the Occupy Wall Street movement. With 2012 presidential elections looming for France, the US, and Korea, these mass movements look likely to impact the future political landscape.

2. Financial regulations need revising

With both fiscal and monetary policy at an impasse, a self-sustaining economic recovery led by the private sector is essential to making progress in balance sheet adjustments. For this to be supported by the financial sector, care must be taken to ensure that reregulation does not cut off the supply of growth money to financial institutions.

What may be most important is to recognize that the global financial crisis never really ended. Although designing rules aimed at preventing future financial crises from occurring is important, the priority should be on achieving an exit from the current crisis. Most important is that hasty reregulation not wind up worsening or prolonging the crisis now in train.

Emblematic of this was the speech by IMF president Christine Lagarde at Jackson Hole arguing that capital requirements for European banks must be strengthened, and if necessary public funds must be used, in order to deal with Europe's financial crisis. An agreement was reached in July 2011 to allow for use of the European Financial Stability Facility (EFSF) to inject public funds into EU banks, but with it looking like it will be a while before all EU member countries ratify the agreement and actually implement it, quicker and bolder action is required. Subsequently, both regulators and financial industry veterans in the US started promoting the idea of an EU version of TARP, citing the US experience of injecting public funds into financial institutions following the Lehman bankruptcy.

These demands on Europe are based on the natural policy judgment that because a credit crunch has resulted from the large number of financial institutions deemed at risk of being undercapitalized, recapitalization, including with public funds, is essential to keeping the crisis from getting worse. Nevertheless, this is diametrically opposed to the concept of resolution without the use of public funds underlying the move toward reform of financial institution resolution rules that has spread globally since the financial crisis began. We think recent events may provide justification for seriously questioning the suitability of the current direction of regulatory reform.

This problem is not limited to Europe. Concerns have recently emerged over the soundness of some of the major financial institutions in the US, but passage of the Dodd-Frank Act has already institutionalized a framework in the US whereby individual financial institutions must be liquidated rather than bailed out. As we note later in this paper, if by some chance the crisis in Europe were to spread to the US, the US would be unable to implement policies effective in avoiding crisis, and this could

plunge the world back into turmoil. In that sense, it is imperative that changes be made in order to create more realistic mechanisms for managing financial crises.

3. Comparisons with previous system-wide financial crises

We stated earlier the importance of recognizing that the financial crisis never ended, and would like to address that first. The current crisis is normally referred to as the "Great Recession," but Harvard University professor Kenneth Rogoff and others refer to it as the "Second Great Contraction," arguing that recovery is going to take many years and warning against any optimistic expectations². Following Milton Friedman's use of the term "Great Contraction" to refer to what has generally been referred to as the "Great Depression" of the 1930s, this is basically making the point that the current crisis is on par with the 1930s depression.

The current financial crisis has common ground with both the Great Depression and Japan's post-bubble financial crisis in that the growth and subsequent collapse of a credit bubble brought with it a system-wide economic and financial crisis. In this paper, we sidestep the question of whether depression, recession, or contraction is the right term, and instead refer to all three episodes as system-wide financial crises.

One trait shared by the Great Depression and Japan's financial crisis is that share prices that had rapidly risen dropped sharply and remained low for an extended period. This can be explained by the time required for balance sheet adjustments by those economic agents that had invested aggressively while building up leverage during the bubble years. Multiple banking crises arise during this process amid a prevailing sense of uncertainty over the future. Another common trait is that monetary and fiscal tightening were attempted despite the crisis not having ended, and such ill-timed policies wound up prolonging the turmoil (Figures 1 and 2).

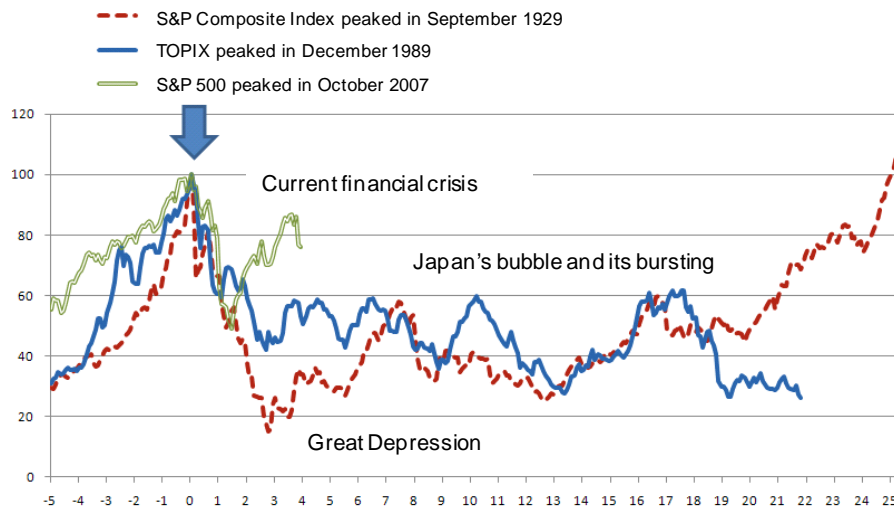
The percentage rise in share prices during the five years leading up to the most recent peak was not as steep as it was prior to the Great Depression or during Japan's economic bubble. In addition, immediately after the Lehman bankruptcy, a whole range of policy measures was aggressively implemented under a framework of global policy coordination in order to keep the crisis from worsening. These differences may buttress the argument that the current crisis is not as serious as the previous two crises. On the other hand, as already noted this aggressive policy implementation brought with it some unintended consequences with the potential to derail any recovery from the crisis, which is probably cause for concern.

For this reason alone, the incoherent mix of policies pursued in previous system-wide financial crises must be avoided. One area that bears close watching is the trend toward financial reregulation. When a current financial crisis is identified as being system-wide, it changes the priorities of financial regulators. In particular, it makes no sense to push for urgent reregulation by extending conventional systemic design

² Reinhart, M. Carmen and Kenneth S. Rogoff, *This Time is Different*, Princeton University Press, 2009

concepts, which are of no use in dealing with crises, be it preventing them or managing them.

Figure1: Bubble formation and subsequent share price movements



Note: Share prices are indexed at 100 at the bubble's peak, set at year zero.

Source: Nomura Institute of Capital Markets Research

Figure2: Conditions following system-wide financial crises

	1930s	Japan since the 1990s	From 2007
Share index	S&P composite	TOPIX	S&P 500
Peak	31.30 (September 1929)	2859.57 (December 1989)	1539.66 (October 2007)
Rate of increase in 5yrs leading up to peak	+238.4%	+221.7%	+80.2%
New peak of share index	September 1954	Not yet	Not yet
Extended financial crisis	(1) 1930–32 Bank runs in several US states, Credit Anstalt and other banks fail (2) Feb–Mar 1933 Bank runs occur throughout the US	(1) 1995–96 Some bank runs, Jusen problem (2) 1997 Sanyo Securities, Hokkaido Takushoku Bank, Yamaichi Securities (3) 1998 Long-Term Credit Bank, Nippon Credit Bank (4) 2003 Resona Bank, Ashikaga Bank	(1) 2007 Paribas shock, Northern Rock, SIV problems (2) 2008 Bear Stearns, GSE resolution, Lehman, AIG (3) 2010–11 EU financial instability
Tightening policies implemented	Tight monetary policy continued even after stock market crash of 1929 Policy rate lowered in 1931 Focus on balanced budgets in early 1930 and in 1937	In 1996, consumption tax rate and health insurance co-pays were raised In 1997, the Fiscal Structural Reform Act was passed ZIRP ended in August 2000	ECB hikes policy rate in July 2008, April 2011, and July 2011

Source: Nomura Institute of Capital Markets Research, based on various data sources

II. A systemic response to system-wide financial crises

1. The problem is not one of determining systemic importance

Normally, systemic risk refers to the risks triggered by externalities unique to the financial industry, whereby a crisis rooted in a single financial firm spreads widely to many other financial firms. In contrast, a system-wide financial crisis refers to a situation in which multiple financial institutions are brought to their knees by the same force, a serious economic contraction caused by the collapse of a bubble or other event. Within this context, if some catalyst triggers a heightening of uncertainty among market participants all at once, it can result in bank runs, a freezing of short-term money markets, and the fire-selling of assets. This can result in a crisis in which multiple financial institutions start failing one after the other.

For normal systemic risk, it is appropriate to use the analogy of a row of dominoes in which if one falls the adjacent ones also fall, but a system-wide financial crisis is more like a table full of dominoes all standing alone, whereby the table itself becomes unstable and it is impossible to tell which dominoes are going to fall as a result of a shock to that table. Furthermore, the table is not just exposed to a single shock, but rather to repeated shocks over an extended period.

When dealing with a crisis with a domino-like contagion of risk, it is the large dominoes and the dominoes located next to many others which are the source of the greatest risk. In other words, the financial institutions that are too big and too interconnected are seen as the problem, and this leads to the concept of trying to improve their soundness by implementing SIFI regulations.

It has also led to the concept of collecting massive amounts of information on the types of transactions a particular financial institution has with other financial institutions, as well as the size of the debts/loan assets involved, using that to conduct a network analysis and measure the systemic risk, and then attempting to deal with that risk.

In a system-wide financial crisis, however, multiple financial institutions become at risk of failure, in the extreme case even when there is absolutely no bilateral transactional relationship between the financial institutions, as a result of depositors and money market funds withdrawing their money out of fear that those financial institutions will suffer major losses, or because of a sharp drop in the market price for their securities. In such a scenario, focusing on SIFIs and gathering/analyzing large amounts of data is insufficient.

2. Macroprudential policies implemented with economic symmetry

Most important to preventing a system-wide financial crisis are not microprudential policies focused on the health of individual financial institutions but rather macroprudential policies focused on the health of the overall financial system and economy as a whole. Before making it more difficult for individual dominoes to

fall, measures must be taken to ensure the table itself is not rattled, including by preventing the overall economy from overheating.

With doubts spreading over the soundness of financial institutions overall, any attempts to tighten capital ratio and liquidity requirements at individual financial institutions risks putting a stop to interbank lending, while demands to raise collateral on margin trading in securities can lead to a gradual freezing up of short-term money markets. Alternatively, if for the same reasons individual financial institutions rush to sell their assets, it will accelerate the decline in asset prices and further worsen the crisis.

In other words, the pursuit of microprudential policies winds up putting the overall economy and entire financial system at risk through procyclical effects. Using the analogy above, attempts to make it more difficult for individual dominoes to fall wind up amplifying the shocks to the entire table.

If the understanding is that the system-wide financial crisis is still in train, the macroprudential policies needed would include deregulation aimed at encouraging financial institutions to lend. In other words, rather than tightening capital ratio and liquidity requirements we should be loosening them. That is precisely the formula proposed by Andrew Haldane, the Executive Director of Financial Stability for the Bank of England and a member of its Financial Policy Committee (FPC), the group responsible for the UK's macroprudential policies³.

Nevertheless, there is a strong tendency to believe that the thrust of macroprudential policies should be on improving the soundness of the financial system during recessions, rather than on their symmetrical implementation at both extremes of the economy (upward and downward), and the argument for easing financial regulations has not garnered much effective support.

Once the reality that the financial crisis is still going on is taken into account, a shift to prudential policies should follow, but where the urgency lies is in implementing crisis management policies based on the understanding that the financial crisis is a system-wide one. In this regard, prudential policies have imperfectly come around to the idea that the focus should be not only on individual financial institutions but also on the system as a whole. The big problem, however, is that the basic thrust of crisis management policy recently has been the exact opposite of this, i.e., it has focused on individual financial institutions rather than the overall system.

3. Debate over orderly resolution is stuck on the concept of a "falling dominoes" crisis

Specifically, following the outbreak of a financial crisis the implementation of orderly resolution mechanisms are proposed as a way to manage the crisis, but this approach remains wedded to the concept of a "falling dominoes" crisis.

³ "Risk off", a paper by Mr. Andrew G Haldane, Executive Director, Financial Stability, the Bank of England, 18 August 2011

Orderly resolution is an approach born out of the experience following Lehman Brothers' declaration of bankruptcy, which sent shockwaves throughout the world and led to huge public bailouts of AIG and Citigroup in order to prevent them from failing. The idea is to try to ensure a bankruptcy resolution that maintains financial stability while avoiding the use of public funds, including for nonbank financial institutions.

The emphasis here is on improving resolvability. In other words, regulators will step in early, before things get out of hand, to correct problems at those financial institutions that they deem to have an organizational or business structure posing excessive risks, or would otherwise be difficult to resolve in an orderly fashion. One tool to achieve this is the living will.

When an actual bankruptcy crisis occurs, the institution is placed in the receivership of regulators with special resolution authority, making it possible to sell off specific pieces of the business while ensuring the continuation of agreements and transactions that would have a major impact on the system if abrogated. This would be expected to improve resolvability and lower the level of turmoil. It is also done without the use of public funds, and having the losses borne by shareholders and creditors.

Using the analogy of falling dominoes, improving resolvability means quickly identifying the dominoes that would affect a large number of other dominoes if they fall, and then changing the arrangement to minimize that impact. Nevertheless, if a large number of dominoes fall not because an adjacent domino fell into it but because the table itself was shaken, i.e., in the event of a system-wide financial crisis, a micro-oriented resolution regime focused on individual financial institutions does nothing to deal with the turmoil occurring system-wide.

Rather, when the bursting of a bubble results in nearly all financial institutions suffering substantial losses and financial market participants starting to doubt the soundness of the financial sector overall, the mere act of initiating the resolution of one financial institution is likely to send the entire financial system into panic mode. Because the new resolution rules do not allow for public bailouts, shareholders and creditors will inevitably suffer losses, and given that the crisis is system-wide, there is no reason to expect other financial institutions to recover anytime soon, with the result being everybody heads for the exits all at once.

4. The need for sufficiently rigorous stress tests with a backstop

What is needed under these conditions first of all is to alleviate widespread doubts over the health of financial institutions. System-wide stress tests are an effective tool to accomplish this. The stress scenarios must apply sufficient stress, particularly in those areas that are the source of people's doubts.

There is a risk that merely announcing stress test results will invite turmoil. What is important is to provide for a backstop, as argued by William Dudley, president of the New York Federal Reserve Bank. This means being ready to provide assistance, including the injection of public funds, to those banks at risk of being short of capital

but unable to raise capital on their own. In addition, for those financial institutions deemed already insolvent and unsuitable for a bailout, arrangements should be made for their temporary nationalization and for sufficient protection of creditors to guard against disruptions to the financial system.

When there are fears that the cost of financial institution bailouts will greatly expand the government deficit or shake confidence in government bonds, it is important to arrange for bailout funds on the regional and global level in order to prevent a banking crisis from developing into a sovereign crisis.

One of the key problems in the euro zone financial crisis is that banks were going insolvent right after having passed their stress test, and this wound up exacerbating market fears. Another problem is that, even as concerns were mounting over substantial capital shortfalls at European financial institutions, the initial stance taken was to rely on the efforts of each bank and its respective government. It took a while before a large bank bailout fund using the EFSF was proposed, and even longer before it was ratified by each euro zone country; even now it is unclear when it will actually be used.

One example of an international mechanism for injecting capital into banks is the recapitalization fund for developing country banks that Japan proposed to the World Bank in November 2008⁴. That fund, with \$2 billion of capital from the Japan Bank for International Cooperation (JBIC) and \$1 billion of capital from the International Finance Corporation (IFC), provides equity and subordinated loans to major local banks in small and medium-size developing countries. Three years after the Lehman Brothers bankruptcy, however, it is banks in the developed economies, rather than developing economy banks, that are in greatest need of recapitalization. In addition to regional bank recapitalization mechanisms like the EFSF, it is also important to devise ways to strengthen international mechanisms

5. Japan's experience

Japan met with a huge backlash of public opinion when it used public funds to resolve the housing lenders (*jusen*) in 1996. As a consequence, it was late to respond to a deepening financial crisis in 1997, leading it to eventually incur huge costs in resolving the crisis. This is another reason to think that the current emphasis on avoiding the direct costs of bank bailouts in the debate over bankruptcy resolution rules in Europe and the US may be a problem. Allowing major disruptions to the financial system by avoiding a bailout leads to a contraction of the real economy and expansion of both government debt and unemployment. The lesson learned from previous financial crises is that this increased burden on the people is substantially greater than the direct costs of bank bailouts⁵.

Another aspect of Japan's experience worth focusing on is that it is not only large and complex banks that pull the trigger on systemic risk. In Japan, the court-ordered

⁴ IFC Recapitalization (Equity) Fund, LP and IFC Recapitalization (Subordinated Debt) Fund, LP.

⁵ See previously cited Reinhart and Rogoff (2009).

resolution of Sanyo Securities led to the contraction of the interbank lending market and eventual failure of both Yamaichi Securities and Hokkaido Takushoku Bank. This suggests that focusing on SIFIs by saddling them with additional regulations and taking measures to keep financial institutions from becoming too large or too complex is not going to stop the panic under a system-wide financial crisis. It also provides reason to doubt the suitability of an approach relying on gathering large amounts of data on transactions, lending, and borrowing.

A third lesson from this is that while the rescue of creditors and counterparties via the bailout or temporary nationalization of financial institutions is essential to keeping the crisis from growing, that alone will not put the crisis to rest.

Japan prevented a global ripple effect from the Yamaichi Securities bankruptcy with the help of special loans from the BOJ, the right move compared to the mistakes the US made in resolving brokerage firms not affiliated with banks. That alone did not bring the crisis under control, however, and tensions lasted for a while after that, with numerous regional banks throughout Japan on the verge of suffering runs on their deposits.

Even after the financial crisis in 1997, Long-Term Credit Bank and Nippon Credit Bank failed in 1998. Creditors and counterparties were protected in those bankruptcy resolutions by putting the process under special public administration. Although this temporarily kept Japan's financial crisis from spreading, it did not put an end to it, and the crisis lasted until 2003, with the bailout of Resona bank and the placing of Ashikaga Bank under special crisis management.

We think one reason why this took so long is that insufficient measures were taken to reassure the market regarding the scale of nonperforming loans and the potential for losses in the financial system as a whole. Special inspections were conducted and policies to quickly resolve nonperforming loans were finally introduced in 2002, and this appears to have contributed to a recovery in market confidence. Although nowadays system-wide stress tests are used, in Japan at the time there was a great deal of mistrust of laxity in the banks' internal assessments of loan assets as well as differences between the banks, and this probably made the special inspections focused on these issues that much more effective.

At any rate, the main emphasis here is that there are times when bailouts are essential. It is first necessary, however, to grasp the overall nature of the crisis by way of special inspections and system-wide stress tests⁶.

⁶ It is of course insufficient to stop at merely conducting special inspections and system-wide stress tests; their results must inform the implementation of necessary and sufficient measures.

III. Dodd-Frank Act in the US makes it more difficult to avoid a financial crisis

1. New rules in the US are of even greater concern than the euro zone's problems

Although some in the US have proposed a European version of TARP as the solution to the euro zone crisis, we wonder what they think of the fact that if the US has its own financial crisis, under the current rules it will be unable to implement TARP-like policies.

As shown in Figure 3, the policy during previous system-wide financial crises has been to provide financial institutions with public funds injections and/or emergency loans from the Fed, but these options are largely prohibited or restricted by Dodd-Frank.

First of all, under the orderly liquidation authority (OLA) rules in Title II of Dodd-Frank, all financial institutions put under receivership must be liquidated, and absolutely no taxpayer funds may be used to prevent the liquidation of any financial institution (Section 214(a)). Furthermore, any funds expended in the liquidation of a financial company have to be recovered either from the disposition of that company's assets or via assessments on other financial companies (Section 214(c)). Furthermore, no government institution may take any action aimed at subverting the purposes of Title II (Section 212(b)).

Second, Section 13(c)(4)(G) of the Federal Deposit Insurance Act used to allow for the FDIC, under an exception to that Act's minimum cost principal, to provide support to financial institutions covered by deposit insurance in the form of capital injections or debt guarantees in the event of systemic risk. The FDIC used this in the latest financial crisis, when it assisted Wachovia and Citigroup, and also provided wide-ranging debt guarantees to financial institutions using the Temporary Liquidity Guarantee Program (TLGP). That section was modified by Section 1106(b) of Dodd-Frank, however, and the provision of exceptional assistance in the event of systemic risk is limited only for purposes of winding up covered financial institutions placed in receivership.

Third, even under Dodd-Frank, in order to avoid or alleviate potential adverse impacts on the US financial system or economy from a worsening of liquidity in financial markets, the FDIC is allowed to establish a debt guarantee program that broadly guarantees the debt of both solvent insured depository institutions and the holding companies of solvent uninsured institutions (including affiliates), but it cannot provide equity (Sections 1104 and 1105).

In addition, in step with the creation of this program, the Treasury Secretary can request the FDIC and FRB to render a decision regarding whether a liquidity event justifying the use of the guarantee program exists, and must concur on the terms and conditions of the guarantee. Furthermore, upon consultation with the President, the Treasury Secretary determines the maximum amount that the FDIC can guarantee, and the President submits a report to Congress, which Congress must approve.

Figure3: Responding to a system-wide financial crisis

	US in the 1930s	Japan from the 1990s	US in 2007–2009	US under Dodd-Frank Act
Deposit insurance	FDIC created in June 1933	Expanded	Expanded	Expanded
Debt guarantees for financial institutions		Introduced as temporary measure (no time limit on insurance for deposits for settlement)	Introduced as temporary measure (TGLP in November 2008)	Limited to general programs covering solvent banks and bank holding companies
Capital injections	Implemented in March 1933	Implemented in 1996; reopened in March 1998	Implemented in October 2008	Prohibited
Nonperforming asset purchases and loss sharing		Oct 1998 to Mar 2005	PPIP introduced in March 2009	Can only be used as a tool for orderly resolution
Temporary nationalization (Creditor and counterparty protection)		October 1998, Long-Term Credit Bank December 1998, Nippon Credit Bank November 2003, Ashikaga Bank	September 2008, Fannie Mae Freddie Mac	Prohibited
Equity and emergency loans from central banks	Section 13 (3) of Federal Reserve Act added in 1932	22 instances from 1995	TSLF, PDCF, AMLF, CPFF, MMIFF, TALF, Maiden Lane I-III	Limited to general programs covering solvent borrowers

Source: Nomura Institute of Capital Markets Research

Fourth, Section 13(3) of the Federal Reserve Act on emergency loans from the FRB, a paragraph added by the Emergency Relief and Construction Act during the Great Depression in 1932, was used as the basis for a number of schemes implemented during the latest financial crisis, the first of those being assistance with JPMorgan Chase's acquisition of Bear Stearns, but this paragraph was changed by Section 1101 of Dodd-Frank. The change dictates that these loans can no longer be used to help specific financial institutions in distress, but rather must be part of a widely used program or facility aimed at providing liquidity to the financial system, and requires the FRB to establish procedures to prohibit the use of these loans by insolvent borrowers. Furthermore, establishment of such program or facility requires the prior approval of the Treasury Secretary, and must be reported to Congress.

2. In the event that a major US financial institution becomes distressed

What does this mean if a major US financial institution becomes distressed? It is conceivable that if it were still sufficiently solvent, and there were concerns over a

liquidity crisis in the financial system overall, including at other financial companies, the FRB could establish a program or facility for emergency loans pursuant to Section 13(3) of the Federal Reserve Act, but given the huge amount of funds that would be needed to provide liquidity support to a major financial institution, there is a risk that Treasury Secretary approval would not be easily obtained. In some cases, time would be critical in getting funding, but the FRB can no longer make a quick decision on its own. Given the likely questions from Congress, it is also conceivable that both the Treasury Secretary and the Fed Chairman would be hesitant to make such a decision, especially when the large amount of funds identified as needed by the Fed could be seen as a rescue of the firm rumored to be in trouble.

When that major financial firm is an insured depository institution or its holding company (or affiliate) and is solvent, the FDIC can establish a widely usable debt guarantee program and use it to assist that financial firm, but in this case the Treasury Secretary must consult with the President, and the President must report to, and gain approval from, Congress. Given the strong anti-Wall Street mood that has recently prevailed, there is a risk that Congress will not easily give the go-ahead.

If the situation continues to worsen without effective liquidity support, there is a possibility that said major financial firm would have to be orderly liquidated under Title II as a "failing financial company representing a critical risk to US financial system stability."⁷

In this case, the FDIC would become receiver, allowing it to spend the funds needed for an orderly liquidation. Ideally, a bridge financial company would be established, to which the assets and liabilities of the company being liquidated would be transferred, critical financial transactions and agreements would continue to be honored, and an orderly liquidation would be pursued so as not to substantially affect the financial system.

This also has some serious risks, however. To avoid turmoil, it is particularly necessary to protect short-term creditors, as explained below. If certain conditions are met, Dodd-Frank allows for additional payments to creditors⁸. FDIC rules on orderly liquidation do not allow additional payments to long-term (over 360 days) creditors⁹, which seems to be another way of saying that short-term creditors will be protected. Under Dodd-Frank, however, for such payments to be approved, they must maximize profits from the sale of assets¹⁰; preventing turmoil in the financial system is not an explicit objective of protecting short-term creditors.

⁷ For more on the below points regarding the treatment of short-term loans when OLA is invoked, as well as the next section on the problem of a monetary contraction caused by losses on short-term loans, see "The Case for Regulating the Shadow Banking System," a paper presented at the Brookings-Nomura-Wharton Conference on Financial Markets by Morgan Ricks, a visiting assistant professor at Harvard Law School.

⁸ Section 210 (b)(4), (d)(4) and (h)(5)(E) of the Dodd-Frank Act.

⁹ Federal Deposit Insurance Corporation, Certain Orderly Liquidation Authority Provisions under Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Final Rule, 76, Fed. Reg. 41626, Section 380.27 (15 July 2011).

¹⁰ Section 210 (h)(5)(E) of the Dodd-Frank Act.

In a document released in January 2011 explaining its provisional rules, the FDIC noted that its distinction between long-term unsecured senior debt and short-term debt does not imply that the latter receives additional payments. It said that there is virtually no reason to expect holders of short-term debt to receive additional payments, and in nearly all cases they would have the same treatment as long-term creditors, i.e., would be subject to pro rata repayments.

In the event that no additional payments are received, the largest repayments under receivership in an orderly liquidation cannot exceed the amount received in the event of Chapter 7 liquidation¹¹, and thus it is likely that holders of CP and other short-term unsecured creditors will suffer a loss.

The FDIC decides whether to continue agreements with secured short-term creditors, such as with repos, by 5:00 PM on the day following its appointment as receiver¹². If continued, the FDIC will notify the counterparty by that time. If not continued, the provider of the repo can cancel the agreement and requisition its collateral. In this case of course, because it is not always the short-term debt that is secured, creditors who have invested in repos as an alternative to deposits are exposed to both liquidity risk and price risk¹³.

In addition, if the FDIC attempts additional payments to short-term creditors to take account of systemic risk, at issue is whether those payments can be smoothly funded using loans from the Treasury Department. Although such loans must meet the terms requested by the Treasury Secretary¹⁴, if the covered financial company is very large and could require the injection of several tens of billions of taxpayer dollars, the Secretary would of course have to take into account the political implications.

Furthermore, the amount that the FDIC can borrow from the Orderly Liquidation Fund established by the Treasury is limited for the first 30 days to no more than 10% of total consolidated assets based on the most recent financial statement if the FDIC is unable to ascertain the fair value of the covered financial company's consolidated assets. After 30 days have passed, or after fair value has been ascertained, that limit is increased to 90% of the fair value of the total consolidated assets available for repayment¹⁵. This suggests that it would be quite difficult to quickly make sufficient additional payments to short-term creditors.

Lastly, there is the problem of determining how large of an orderly liquidation fund Treasury can establish. If the amount of funds required to liquidate a large financial

¹¹ Section 210 (d) of the Dodd-Frank Act.

¹² Section 210 (c)(10)(A) of the Dodd-Frank Act. In addition to repos, derivative contracts are normally treated as qualified financial contracts, and counterparties are unable to cancel or close-out contracts until they mature. Section 210 (c)(8)(F)(ii) of the Dodd-Frank Act.

¹³ In explanatory documentation to supplementary rules announced in January 2011, the FDIC noted that repo transactions with insufficient collateral would not be continued, and that the amount by which collateral was short would be treated as a regular credit claim. It also pointed out that one of the main causes of the financial crisis was the excessive dependence for short-term funding on repos backed by highly volatile, illiquid collateral such as mortgage-backed securities.

¹⁴ Section 210 (n)(5) of the Dodd-Frank Act.

¹⁵ Section 210 (n)(6) of the Dodd-Frank Act.

company becomes large enough to necessitate the issuance of Treasury securities above the legal limit, congressional approval is required¹⁶. The last financial crisis as well as the recent clash in Congress over raising the US debt ceiling provides evidence that such approval would not be easy to obtain.

3. An unavoidable contraction of broad money

As Milton Friedman pointed out in his analysis of the Great Depression of the 1930s, the banking crisis caused serious damage to the economy via a contraction of deposits, i.e. a contraction of the money supply. The FDIC was established to provide a federal system of deposit insurance and reduce the likelihood of bank runs. The recapitalization of banks using public funds and liquidity supplying operations by the central bank also played an important role. Furthermore, the FDIC relied on the orderly liquidation of covered depository institutions in trouble, providing exceptional assistance when systemic risk was a possibility.

What became clear from the latest crisis, however, is that a tightening of money more broadly defined, which includes short-term credit not covered by deposit insurance, is also a serious problem. Specifically, there was a tightening of the asset-backed commercial paper (ABCP) and repo markets, as well as a tightening of the markets for CP and money market funds brought by the default of CP issued by Lehman Brothers. This tightening of broadly defined money created a credit crunch while slamming the brakes on the real economy.

Immediately after the Lehman bankruptcy, TARP was implemented, the FRB made emergency loans, and the FDIC launched open bank assistance and a credit guarantee program under the systemic risk exception clause, extending its protection beyond deposits to include money market funds, the repo and CP markets.

As noted above, however, the Dodd-Frank Act now greatly restricts the ability to use exceptional measures to forestall a monetary contraction.

Furthermore, in the event of a system-wide financial crisis, the actual decision to orderly liquidate a large financial institution runs the risk of triggering the until-then simmering instability of other financial institutions and causing the entire market to seize up, thereby increasing the severity of the crisis. Dodd-Frank makes it difficult to devise effective measures to deal with this, however.

4. Living wills and doubts over early intervention

We have already noted that orderly liquidation under the Dodd-Frank Act is fatally flawed in that the resulting liquidation is not orderly but instead causes huge disruptions to the financial system and economy overall. Another problem is the concern over whether it is feasible.

¹⁶ Section 210 (n)(5) of the Dodd-Frank Act.

Former FDIC Chairman Sheila Bair also recognized that because many large banks and nonbank SIFIs have subsidiaries numbering in the thousands and conduct business in multiple countries, it can be extremely difficult achieving an orderly liquidation of a portion of their organization while at the same time avoiding the huge costs associated with a collapse of the entire company¹⁷.

One way to deal with this problem is to establish a resolution framework for global financial firms. Progress is gradually being made in this regard, one example being the consultative document regarding a SIFI resolution framework published by the Financial Stability Board (FSB) in July 2011.

Even the FSB, however, rules out in principle any resolution requiring the bailout of financial firms. The more that other countries follow the US example and close off the possibility of bailouts, the more difficult it will become to forge effective international agreement on a global resolution framework.

This is because if a global financial institution becomes at risk of bankruptcy, whether its home country implements emergency fiscal and financial measures to constrain the turmoil will make a big difference in the ultimate size of the losses suffered by overseas counterparties and creditors. If the home country does not provide some sort of relief measures, it will have a major impact on other countries and further complicate the debate over how best to share the pain. This becomes clear upon considering the differences in the international impact from the Lehman bankruptcy compared with that from the crises precipitated by Bear Stearns, Fannie Mae, Freddie Mac, and AIG.

Meanwhile, if it were the presence of large, complex financial firms that made orderly liquidation difficult, one conceivable approach would be to break such firms up or force them to simplify their operations. In other words, commit to improving resolvability. In the US, draft legislation to break up large financial institutions was rejected in the process of debating Dodd-Frank, but previous FDIC Chairman Sheila Bair, following up the statement noted above, made the case that the FDIC and FRB need to leverage their authority related to living wills included in Dodd-Frank to pursue the rationalization and simplification of financial institutions before the next financial crisis occurs.

As long as there are no objective criteria regarding the optimal size and structure of the financial institutions, however, it will probably be difficult for regulators to compel organizational changes. FRB Governor Daniel Tarullo has argued that a living will that silos distinct functions to the maximum extent possible (increasing the autonomy of each function and organization to make it less likely that the crisis will propagate across organizational lines) is likely to make the organization less efficient, thereby increasing the cost of financial services to both households and corporations¹⁸.

¹⁷ Remarks by then FDIC Chairman Sheila C. Bair, "We must resolve to end too big to fail," before the 47th Annual Conference on Bank Structure and Competition sponsored by the Federal Reserve Bank of Chicago, 5 May, 2011.

¹⁸ "Industrial Organization and Systemic Risk: an Agenda for Further Research", Speech by FRB Governor Daniel K. Tarullo at the Conference on the Regulation of Systemic Risk, Federal Reserve Board, Washington, D.C. 15 September, 2011.

This should be kept in mind, given that there are moves to implement living wills on a global level, based on the FSB proposal.

Another emphasis outside of the realm of living wills is on the need for early intervention in financial firms. For example, Section 166 of Dodd-Frank stipulates early remediation requirements for SIFIs, and allows for the use of forward-looking indicators as a basis for action.

Because equity capital ratios are a lagging indicator, the prompt corrective actions based on them under the previous regime meant that the crisis response was too late, and the new approach seems to be a result of having reflected on this. Nevertheless, although preventative measures based on clear-cut grounds are necessary, if intervention is overly discretionary it will probably raise doubts over how suitable such an approach is. A mechanism reliant on regulatory discretion must be thought out quite carefully, since it also runs the risk of regulatory forbearance in a situation when intervention is called for¹⁹.

For example, the FDIC issued a report arguing that the orderly liquidation of Lehman Brothers would have been possible under Dodd-Frank²⁰, but there is reason to doubt that regulators would have exercised their authority to pursue early recapitalization of Lehman Brothers, which had a Tier 1 capital ratio 10.7% and a capital ratio of 16.1% at end-March 2008, purely because Bear Stearns was in crisis, although that is the scenario outlined in that report.

Furthermore, as we have repeatedly noted, it is important to remember that during a system-wide financial crisis, the mere act of early intervention in a particular financial firm may trigger a market-wide panic.

IV. Suggestions for Japan

1. Euro zone crisis validates Japan's stance

Based on its experience with financial crises since the 1990s, Japan has warned the rest of the world against becoming too optimistic over an early recovery from the latest financial crisis²¹. Japan's financial regulators also contributed to the global debate over the tightening of Basel regulations with a recommendation to take the direction of the economy into account and to set aside a sufficiently long transition period.

The recent worsening of the euro zone crisis appears to have validated Japan's cautious stance and its approach toward regulatory reform based on that stance.

¹⁹ Edwards, Jonathan M., *FDICIA v. Dodd-Frank: Unlearned Lessons About Regulatory Forbearance?* Harvard Business Law Review, Vol. 1, Spring 2011.

²⁰ FDIC, "The Orderly Liquidation of Lehman Brothers Holdings Inc. under the Dodd-Frank Act", FDIC Quarterly, Volume 5, No.2, 2011.

²¹ One example is the reference to false dawns in "Way out of economic and financial crisis—lessons and policy actions", a speech by Mr. Masaaki Shirakawa, Governor of the Bank of Japan, at the Japan Society, New York, 23 April 2009.

In managing financial crises, Japan has drawn upon its own trial and error in the 1990s while also referencing outside proposals, including from the G7 countries, to put together a framework for systemic risk exception, offering protection to creditors via preventative capital injections into solvent financial firms combined with the temporary nationalization of insolvent financial firms. In addition, the Bank of Japan has clarified the principles upon which it will manage its special loan program. This presents evidence that Japan has, since well before establishing its current system, adhered to a stance of not allowing its financial crises to propagate to the rest of the world, while combining that with the implementation of bold measures.

Japan's proposal to the World Bank during the latest financial crisis to establish a fund for recapitalizing banks in developing countries also appears to have been a suitable initiative. Since then, with the euro zone crisis having deepened, there have been more voices arguing for the need to recapitalize the banks with public funds, including in the US, where bailouts with public funds have been ruled out.

Although it is certainly true that bailing out the banks with public funds presents a moral hazard, we think the strongly rooted opposition to bank bailouts in Europe and the US can be attributed to the soft treatment given the rescued banks and their management, and more generally to the high compensation packages being paid to executives at financial firms. Japan's position may be of reference in this regard.

2. Future issues

As we have emphasized in this paper, the euro zone crisis has made it imperative that the banks be recapitalized with public funds, but at the same time the US has introduced rules that bar the use of public funds to rescue financial institutions or their creditors, an approach that is being implemented worldwide but that is at risk of destabilizing the global financial system. Japan must push for a change in this approach.

In addition, based on its experience with the developing country bank recapitalization fund jointly capitalized by the JBIC and the IFC, Japan could conceivably argue for the creation of backstops for financial crises that are more global in nature.

The FSB's proposal for global resolution provides for the option of a going concern resolution and does not rule out the use of bailouts by individual countries, but as pointed out in a report issued by the Basel Committee's Cross Border Resolution Group (CBRG), it is unknown whether this would actually work, given the many countries that have not yet established a mechanism for the temporary funding needed for smooth resolution²². This becomes less meaningful when considering that even when a mechanism for temporary funding is provided for, there is a risk that the

²² Although many countries have set up deposit insurance funds to cover depository institutions, very few have set up resolution funds, with most relying instead on ad hoc arrangements by the government and central bank to fund resolutions that go beyond the protection of deposit holders. Basel Committee on Banking Supervision, Resolution policies and frameworks – progress so far, July 2011.

default of short-term debt will be unavoidable under current circumstance, as is the case in the US.

Meanwhile, even in Japan there remain concerns over whether it is possible to flexibly devise measures to avoid a contraction of the money supply broadly defined (not just deposits) in the event of a financial crisis. The report from the CBRG identified as the biggest problem for now the fact that many countries have yet to establish a special resolution regime (SRR) for nonbank financial firms²³. This is something that Japan must also deal with.

²³ Financial institutions are different because when they are in crisis, a rapid decline in asset values occurs, and their large number of transaction partners causes the crisis to spread. An important goal of a normal resolution regime is the fair and orderly resolution of creditor claims, but because of this difference, financial institutions require an SRR, which also has public interest objectives, namely maintaining financial stability and protecting retail deposit holders. This gives the resolution authorities the power to suspend the early termination of agreements and to quickly transfer assets to a bridge company.