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Bank of Japan

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**What Should We Learn from the Eurozone Crisis?  
– A Regulatory-Reform Perspective –**

*Speech at the Institute of International Bankers  
2012 Annual Washington Conference*

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## **1. Introduction: Two “Once-in-a-Century” Crises Just Three Years Apart**

Let me begin by thanking the Institute of International Bankers for inviting me to join the leading international bankers today. I am delighted and honored to have the opportunity to deliver this speech at the 2012 Annual Washington Conference.

It is a great pleasure for me to return to Washington D.C. from Tokyo after 30 years of absence, especially as it is just two weeks before the Cherry Blossom Festival officially begins. I vividly remember the Festival on the Mall in 1982 when I lived here. In fact, this year is special not only for me but also for all Washingtonians and Tokyoites. This year marks the centennial anniversary of the gift of these 3,000 cherry trees from Tokyo to Washington D.C. in 1912. The Washington cherry trees have rooted strongly, survived the elements, and withstood the test of time. Their blossoms come into full bloom every spring so as to make us feel eternal peace and serenity, regardless of economic cycles, market swings, and in particular, financial crises.

Alan Greenspan once described the “Lehman Crisis of 2008” as a “once-in-a-century type event.”<sup>1</sup> And now we are facing the “Eurozone Crisis of 2011.” Some say the potential magnitude of the fallout from this latter crisis may approach that of the former unless appropriate measures are devised and implemented promptly. Thus, we have experienced two once-in-a-century events within three years. Indeed, this is quite extraordinary. However, if we look closer at these two crises, we find they are not necessarily isolated events (or in statistical terms, they are not independent.) Rather a certain factor was active behind both events: important regulatory changes in the United States around 2004. These regulatory changes are seen as having led to excessive leveraging in the United States, culminating in the collapse of Lehman Brothers. But what is relatively less well known is that these regulatory changes provided fertile ground for the excessive risk taking of European financial institutions as well, making these institutions vulnerable to potential shocks after the Lehman Crisis, when the sovereign risks of a small periphery country surfaced. This vulnerability is the source of the contagion fears we have observed.

In this speech, I examine the current Eurozone Crisis from the perspective of how to devise and implement a regulatory framework appropriate for financial stability and economic activity. In particular, I have two issues in mind.

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<sup>1</sup> As reported by AFP, September 14, 2008.

The first issue is that regulatory changes often have unintended and sometimes large cross-border impacts in the increasingly integrated world of finance. One country's deregulation may cause excessive risk taking not only by that country's financial institutions, but also by those in other countries, and in some cases, the impact is larger for foreign institutions than domestic ones.

The second issue I wish to raise is that the effectiveness of regulatory changes is crucially dependent on economic conditions at the time those changes are introduced. Thus, there is a non-trivial possibility of implementing the right policy, but at the wrong time. And by the same token, appropriate sequencing is also dependent on economic conditions.

In Section 2, I first explain how the U.S. regulatory changes, most notably deregulation on the leverage of investment banks, affected the behavior of European financial institutions. It is not at all likely that regulators intended this effect, so this is a classic example of the unintended cross-border impact of regulation. I also argue that the timing of this regulatory change was not quite right: deregulation took place exactly when European financial institutions, as well as their U.S. counterparts, had begun to search for yield and to take risks, which turned out to be excessive.

In Section 3, I examine what we should learn from the Eurozone Crisis, and examine the current issues of regulatory reform from this perspective. I argue that we should not indulge ourselves in the wishful thinking of a quick return to "normality". In advanced countries, we are likely to face severe and prolonged balance sheet adjustment under the unfavorable conditions of population ageing. Bearing this in mind, I also argue that what is needed is appropriate sequencing of regulatory reform when banks are deleveraging, not leveraging. Finally, I will touch upon the cross-border issue raised by the Volcker Rule in the Dodd-Frank Act, which is another example of the unintended cross-border impact of financial regulation. There, appropriate implementation is the key to avoiding unintended side-effects that may be quite hazardous to some countries.

## **2. The Eurozone Crisis and US Regulatory Change: Unintended Pull of “Excessive” European Risk Taking**

### **2.1. Genesis of the Eurozone Crisis**

The euro currency is a “grand experiment”: centralizing monetary policy to one central bank, yet leaving fiscal sovereignty to individual member countries, of which there were originally 11, now expanded to 17. This experiment is itself a “process”: the euro was adopted not because the prerequisites of the optimal currency area had been met, but under the premise that continuing efforts, for example, increasing labor market mobility and flexibility, would eventually lead to the true “conversion” of economic conditions while maintaining the identity of member countries. Unfortunately however, various imbalances, especially in trade and finance, have been accumulated on the way. These imbalances have led to the current sovereign debt crisis, since the appropriate adjustment mechanism has been lacking, given that exchange rate adjustment is ruled out by definition.

Nobody denies that the current Eurozone financial problems have been caused by the region’s sovereign debt crisis. And the sovereign debt crisis is the direct result of worsening public finances caused by massive fiscal stimulus programs to support the economy and capital injections to failing financial institutions after the Lehman Crisis of 2008. However, the current Eurozone crisis is at least partly due to excessive risk taking by many European financial institutions *before* the Lehman Crisis, especially in the U.S. financial markets, and in particular in those of structured products.

Several years before the Lehman Crisis, notably after 2004, European financial institutions accelerated their search for yield and expanded their balance sheets. Chart 1 shows the total assets of the financial institutions of Germany, France, Italy and Spain, relative to their position in 2004. A notable acceleration of expanding balance sheets is found in European financial institutions, except for German ones.

Here the grand experiment of the euro played a pivotal role. Based on the European Union's financial services directives, a single market was being formed in terms of financial markets and financial business in general. Competition intensified among financial institutions, and this squeezed their profits. A remarkable convergence of

sovereign interest rates highlighted declining risk premiums in financial markets (Chart 2), though in retrospect this proved unsustainable. Moreover, there were challenges from growing capital markets in Europe, where indirect financial intermediation had traditionally dominated. Fund business also accelerated in Europe as the net assets of asset management funds expanded after 2004 (Chart 3).

European financial institutions expanded their claims not only to borrowers within Europe, including those in their own countries, but also to those outside the region. For example, Spain increased its claims on Latin American countries and France expanded those on the United States. According to the BIS International Consolidated Banking Statistics compiled by the Bank for International Settlements, European financial institutions, which traditionally had a major presence in cross-border claims, continued to boost volume and market share, especially after 2004 (Chart 4). A look at the statistics by country for non-Eurozone assets shows that both Spain and France experienced remarkable increases after 2004 (Chart 5). Even Germany showed a noticeable increase.

## **2.2. 2004: Inflection Point of the Cross-Atlantic Financial Markets**

Looking back at the history of European financial institutions' risk taking behavior, the widespread acceleration around 2004 is remarkable. There seem to be no particular events or regulatory changes in the Eurozone that can fully explain this acceleration. So, what happened in 2004?

In fact, 2004 is the inflection point of the U.S. financial markets as well. The size of U.S. investment banks' balance sheets ballooned after 2004 (Chart 6). Likewise, the balance sheets of special purpose vehicles (SPVs), which are off the balance of, but virtually supported by their "parent" commercial banks, accelerated sharply to a degree that exceeded even those of the investment banks. SPVs increased their assets, including investment in securitized products, against a backdrop of favorable funding conditions, which I explain shortly. The massive expansion of the balance sheets of SPVs together with the "activism" of investment banks contributed significantly to the astonishing growth in the size of this so-called shadow banking system.

One factor that explains this remarkable increase in risk taking activity is the seemingly benign financial conditions of the “Great Moderation” at that time. Massive capital inflows from emerging economies contributed to lowering interest rates in the United States during the period.<sup>2</sup> After joining the WTO in 2001, China expanded its current account surplus, playing an increasingly important role in financing the U.S. current account deficit. A large portion of securities investment from China went to U.S. Treasuries and agency debt markets (Chart 7),<sup>3</sup> contributing to the decline not only in interest rates but also in their volatility (Chart 8). The sustained volatility decline after 2004 was remarkable, and likely contributed to the perception of declining risk, thereby encouraging the risk taking that turned out to be excessive after all.

However, this so-called “savings glut” argument cannot explain why risk taking accelerated exactly in 2004, since the savings glut emerged well before 2004. What happened exactly in 2004? This question leads us squarely to the regulatory changes in the United States in 2004.

In 2004, the net capital rules on U.S. investment banks were relaxed (the so-called Bear Sterns exemption).<sup>4</sup> Specifically, investment banks with capital of US\$5 billion and above were allowed to increase their leverage by applying for an exemption from the standard net capital rule. The relaxation partly reflected rising calls from the industry, which had faced severe business conditions in the early 2000s and was seeking to strengthen profitability through greater leverage. The increasingly sophisticated risk management of these institutions, as it was described at the time, was also cited as one rationale for this deregulation.

Moreover, in 2004, regulatory changes with respect to Fannie Mae and Freddie Mac

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<sup>2</sup> According to the "global savings glut" argument, capital inflows from countries with a current account surplus, such as China, brought about a decline in U.S. interest rates and thereby played a role in forming housing bubbles. Although the U.S. Federal Reserve raised policy rates in 2004 against a background of clear signs of an economic recovery, long-term interest rates remained stable at low levels, which the then Federal Reserve Chairman, Alan Greenspan, described as a "conundrum."

<sup>3</sup> At the time, agency debt was under implicit government guarantee.

<sup>4</sup> When their holding companies were placed under the umbrella of the Securities and Exchange Commission in 2004, U.S. investment banks were exempted from the standard SEC net capital rule.

reduced federal mortgage pools and thus opened a large profit opportunity for private-label RMBS. Many commercial banks jumped at this opportunity to set up their own SPVs. These two regulatory changes, coupled with economic and financial conditions that turned much more favorable after 2004, induced aggressive risk taking, which in retrospect turned out to be grossly excessive, as shown in the previous charts (see again Chart 6).

### **2.3. Triple Vulnerability of European Institutions**

With profits being squeezed at home, European financial institutions tried to take advantage of these newly-opened and seemingly profitable opportunities in the U.S. markets. European investment in the U.S. securities market expanded. A clear difference was observed between European and Chinese securities investment: Europeans invested in credit products, while Chinese invested in safer assets, U.S. Treasuries in particular (Chart 9). This extraordinary expansion of European investment in risk assets is often argued as being at least partly responsible for the formation of the U.S. credit bubble. This is clearly an unintended effect of the 2004 regulatory changes.

This excessive risk taking of European financial institutions in the U.S. markets led to their “triple” vulnerability to economic shocks.

The first vulnerability is a sizable exposure to legacy assets. A large portion of lower-quality assets such as those related to subprime loans were held by European financial institutions, and even today these institutions face the challenge of dealing with these legacy assets.

The second vulnerability is their heavy reliance on wholesale dollar funding. A distinctive feature of European financial institutions has been their relatively high loan-to-deposit ratio, compared with their Japanese and U.S. counterparts. Consequently, in expanding their balance sheets, European financial institutions have become increasingly reliant on market-funded liquidity. Looking at the funding structure of French financial institutions, for example, the ratio of funding other than deposits by residents has been rising noticeably since 2004 (Chart 10). This caused a

significant problem when U.S. institutional investors such as money market funds became increasingly nervous about counterparty risk in the Eurozone.

The third vulnerability is sovereign risk. The Eurozone has many sovereigns within one currency area. It becomes increasingly difficult to treat all sovereigns equally in their risk weights once market participants recognize individual debts as being different in their creditworthiness. It should be noted that, although the U.S. and other countries' institutions share the first vulnerability, the second and third are unique to the Eurozone.

### **3. Looking Forward: What Should We Learn from This Episode?**

#### **3.1. This Time May Truly Be Different: Severe Balance Sheet Adjustment under Unfavorable Conditions**

Now, I would like to examine what we should learn from the current Eurozone Crisis in terms of financial regulation, and examine the current issues of regulatory reform from this perspective.

Global regulatory reform since the Lehman Crisis of 2008 has clearly been focused on the “prevention” of another crisis. Several advanced economies are to introduce new regulatory frameworks for the purpose of preventing financial institutions' excessive risk-taking. A typical example is the Dodd-Frank Act in the United States.

The tale of U.S. financial markets after 2004, which I have just described, shows how loose regulations went wrong and resulted in bitter consequences. In this regard I fully understand the rationale of such regulatory reforms. Having said that, I am afraid that the global debate on these reforms has sometimes been based on the “wishful thinking” of a quick return to normality, that is, on the assumption that the new regulatory frameworks would be implemented in the normal times that are supposed to prevail in the immediate wake of a brief crisis.

The Bank of Japan repeatedly cautioned against such wishful thinking, having experienced prolonged problems after Japan's financial crisis in the 1990s. The Bank warned that downward pressure stemming from financial crises is likely to be persistent,



and any signs of recovery observed shortly after the crisis could be a “false dawn.” It also emphasized the risk of bank deleveraging and balance sheet adjustment, especially when the adverse impacts of the crisis remain. Indeed, what we had to tackle after the crisis was not leveraging and excessive risk-taking by the banking sector, but deleveraging and malfunctioning of credit intermediation. Moreover, we had to deal with these problems under severe constraints on macro-policies, with interest rates close to the zero-bound and fiscal balance deteriorating.

Unfortunately, developments in the global economy after the Lehman Crisis seem almost to have confirmed our fears. Moreover, many advanced economies are now experiencing both the downward pressures associated with financial fragility and the structural adjustment pressures from population ageing.

Suppose the contrary. When advanced economies were not under severe pressure from population ageing, counter-cyclical fiscal policies were broadly effective because market participants were able to believe that any deterioration in fiscal balance should be temporary and, consequently, a large-scale increase in sovereign risk premiums was avoided. However, the fundamental fiscal balance of many advanced economies is now broadly expected to worsen as a result of population ageing and reduced growth potential. In such an environment, the policy effects of fiscal easing are likely to be substantially reduced by an increase in sovereign risk premiums.

Thus, I would say “this time may truly be different”, mainly because many advanced economies have to tackle widely ranging challenges, including population ageing and the consequent decline in potential growth rate, more intense constraints on fiscal policy and the persistent balance sheet adjustment pressures stemming from the financial crisis. Indeed, in “peripheral” Euro-zone countries, on which markets are now focusing, financial crises and population ageing have been taking place almost simultaneously (Chart 11). We should all be aware that, as a consequence, most of the new regulatory frameworks are to be introduced not in “a normal time after crisis” as expected, but in a stressed time.

### **3.2. Implementation of Regulatory Reform: Crisis Prevention versus Crisis Response**

Finding ourselves in such a difficult economic and financial environment, we should bear in mind that the best “prevention” may not be the best “response” to a crisis. Although public capital injections into banks or blanket guarantees of deposits might give rise to moral hazard, these measures are sometimes necessary in order to contain immediate spillover. Similarly, increasing capital buffers may contribute to maintaining a bank’s solvency over the medium term, but increasing banks’ capital burden in a stressful time might create an adverse feedback loop of intensified capital constraints, weak bank lending and economic slowdown, thus accelerating the bank deleveraging that could lead to a devastating credit crunch.

Although we are intellectually tempted to consider *what* policy tools are available to help promote financial stability, it is practically more important to consider *when* to use these tools. Particularly, inappropriate sequencing of policy measures might intensify the risk of adverse feedback loops in stressed times, even though individual measures could be effective in normal times. Moreover, we should be extremely careful to avoid miscommunication through the inappropriate timing of policy announcements, especially when we introduce crisis prevention measures in an environment where emergency responses to the on-going crisis are still crucial.

In view of the on-going Eurozone crisis, we have to monitor carefully how European banks react to the new regulatory environment in which tighter capital regulations are expected. Needless to say, after the substantial leveraging of European banks before the crisis as I explained, orderly and gradual deleveraging should be viewed as the “intended” consequences of tighter regulation. Nonetheless, in order to evaluate the impact of the Eurozone problem on the global economy, it is necessary to assess whether and to what extent European banks intensify their deleveraging overseas, given the various pressures they face within their home jurisdictions. I believe such assessment is what “macro-prudence” is required to do.

### **3.3. The Volcker Rule and Unintended Cross-Border Impacts**

We are now tackling the difficult issue of implementing new regulations for crisis prevention while economic and financial conditions are still fragile. As a typical and familiar example of such difficulties, I would like to raise a couple of points concerning the Volcker Rule stipulated in the Dodd-Frank Act.

First of all, I should make it clear that I fully agree with the fundamental reasoning behind the Volcker Rule. Indeed, speculative activities by some financial institutions under the “originate-to-distribute” type business model were the main driver of the recent crisis, as explained before. Based on such appropriate recognition, the Dodd-Frank Act asks financial industries to make a thorough assessment of their business models, and to modify them if necessary.

At the same time, in view of the on-going Eurozone crisis, I would like to emphasize that policymakers should be extremely careful to avoid any unintended consequences when introducing new rules, especially in terms of possible negative impacts on overseas sovereign debt markets at this juncture. Moreover, central banks are required to be attentive to the liquidity of sovereign debt markets, which are the core of the monetary policy transmission mechanism.

The Volcker Rule is intended to restrict proprietary trading by banking entities for the purpose of short-term gain. However, the Rule could have significant implications for important market-making activities as well as for market liquidity, depending on how related regulations are written and how they are actually implemented. According to the proposed regulations, U.S. government bonds and most other U.S. agency obligations are exempt from the Rule. Obviously, the U.S. authorities are keen to ensure smooth transactions for these securities, and are well aware of the importance of market-making activities for that purpose.

Market liquidity is no less important for the securities of non-U.S. governments. However, the proposed regulations do not exempt government obligations of other countries, including Japan, Canada and European countries. Thus, if the Volcker Rule were to be strictly implemented as proposed, it could adversely affect the liquidity of

overseas sovereign debt markets.

Another issue is that short-term foreign exchange swaps could also be subject to the Volcker Rule under the proposed regulations. This means, dollar liquidity that has been provided through foreign exchange swaps could be curtailed, causing difficulties for the dollar funding of financial institutions. This could also be a concern for many financial institutions, especially when the global condition of foreign-currency funding is tightened.

I understand that the proposed regulations take into consideration the possible implications for market-making and other important activities by way of several exemptions. But these exemptions seem to be applied under strict and complicated conditions, and often allow ambiguous interpretations. As a result, some market participants seem uncertain as to how the Volcker Rule would impact both sovereign debt markets as well as funding conditions.

At a time when tension is heightening in European sovereign debt markets, a prudent assessment of the potential impact of the Dodd-Frank Act on other countries is crucial, especially in terms of the liquidity of sovereign debt markets and the short-term funding of financial institutions. Needless to say, we should not expect any law to be a perfect solution in this difficult environment, but well-articulated guidance by the authorities and well-balanced implementation of the law is of the utmost importance.

#### **4. Concluding Remarks: Prudent Implementation of the Prudential Measures**

In this speech I have argued that regulatory changes often have unintended and sometimes considerable cross-border impacts in the increasingly integrated world of finance, as evidenced by the leveraging rule and other regulatory changes of 2004 on European financial institutions, and now possibly by the Volcker Rule on non-U.S. financial institutions. However, what is at stake goes beyond these cross-border effects: the effectiveness of regulatory changes is crucially dependent on underlying economic conditions when they are introduced. Financial regulations are in their very essence prudential measures. Even more importantly, we need prudent implementation

of these prudential measures.

Thank you for your attention.

# What Should We Learn from the Eurozone Crisis? ~A Regulatory-Reform Perspective~

**Kiyohiko G. Nishimura**  
*Deputy Governor of the Bank of Japan*

## (Chart 1) Notable Acceleration of Expansion in Financial Institutions' Assets, Especially in France, Italy and Spain

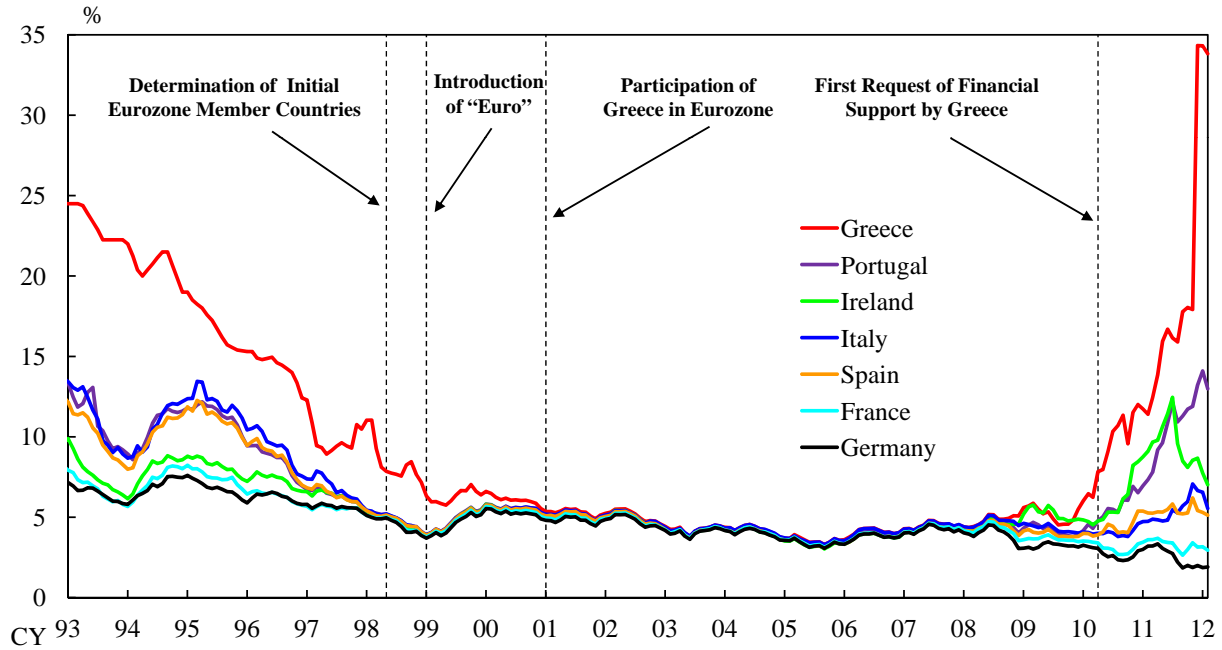
Total Assets of European Financial Institutions



Note: "Regulation change" indicates that U.S. authorities eased the regulation on the leverage ratio of U.S. Investment Banks in 2004 (the same shall apply hereinafter).

Source: CEIC.

## (Chart 2) Convergence of Interest Rates in Eurozone Member Countries through Introduction of “Euro” Currency

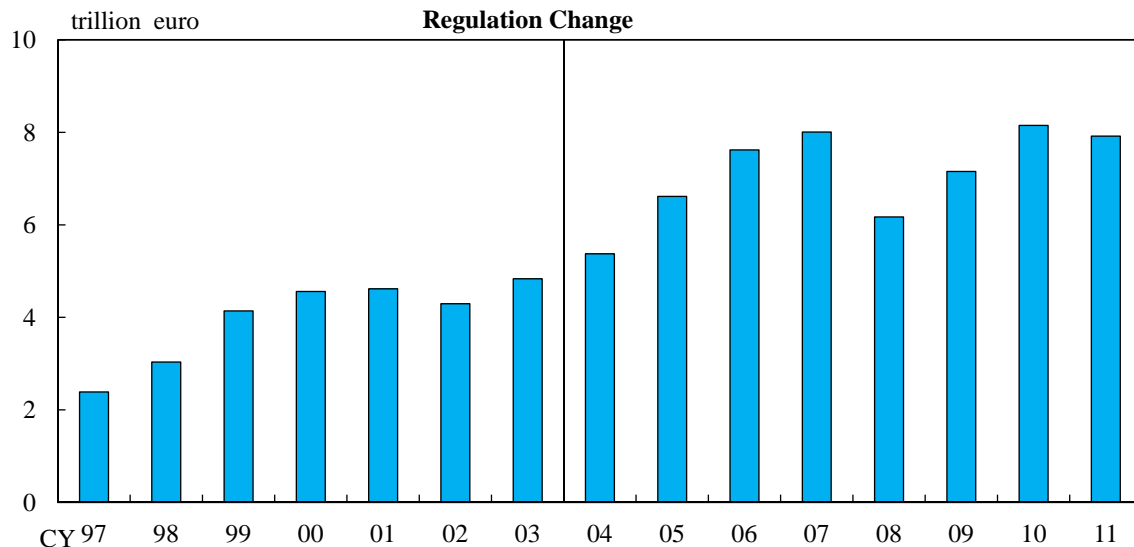


Note: The figures indicate the long-term government bond yields of each country.  
Source: Bloomberg.

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## (Chart 3) Expansion of Asset Management Business in Europe

### Net Assets of Asset Management Funds in Europe



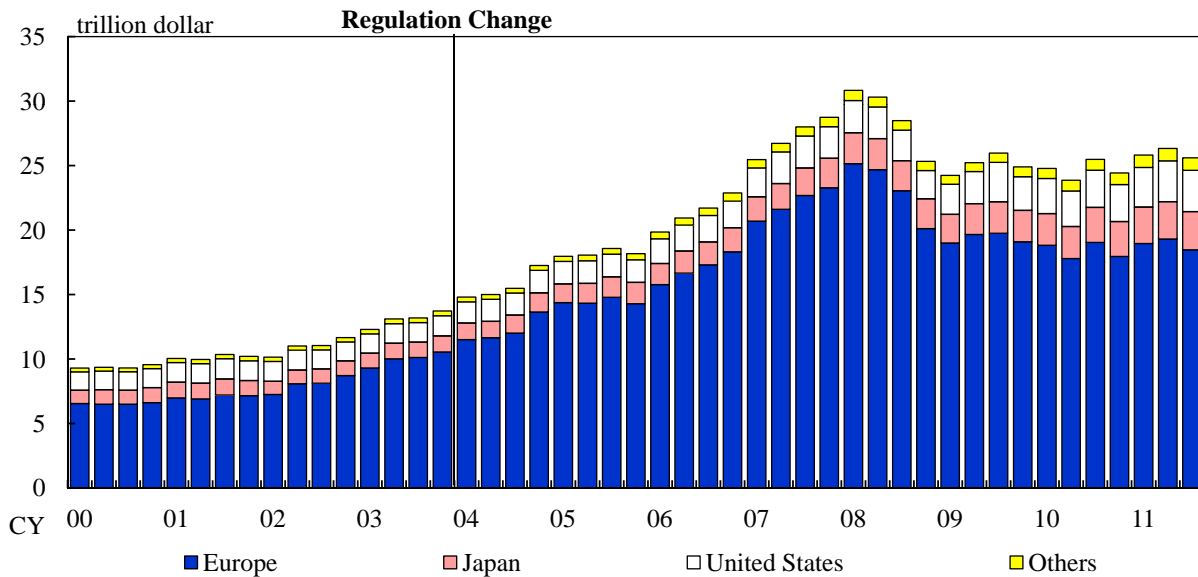
Note: The figures are the net assets of the investment funds domiciled in Europe at the end of each year.  
Source: European Fund and Asset Management Association.

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## (Chart 4)

# The Major Presence of European Banks in Cross-border Claims

Cross-Border Claims Classified by Nationality of Reporting Banks



Note : The figures are the amounts outstanding on an immediate borrower basis in 17 reporting countries whose data are available from the first quarter of 2000.

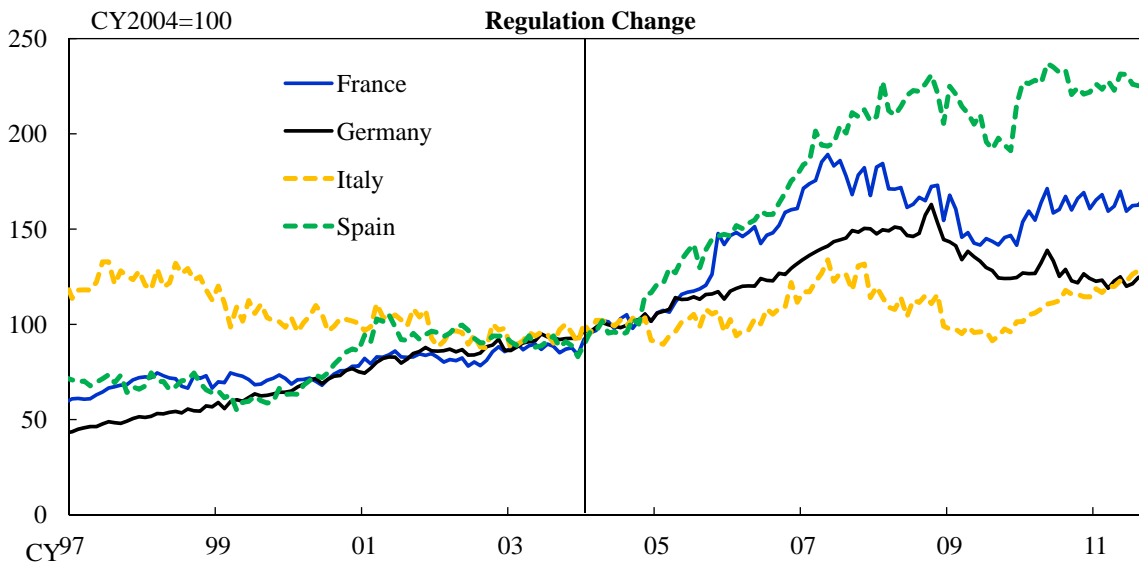
Source: BIS.

4

## (Chart 5)

# Remarkable Increase in European Financial Institutions' Non-Eurozone External Assets

Non-Eurozone External Assets Held by European Financial Institutions



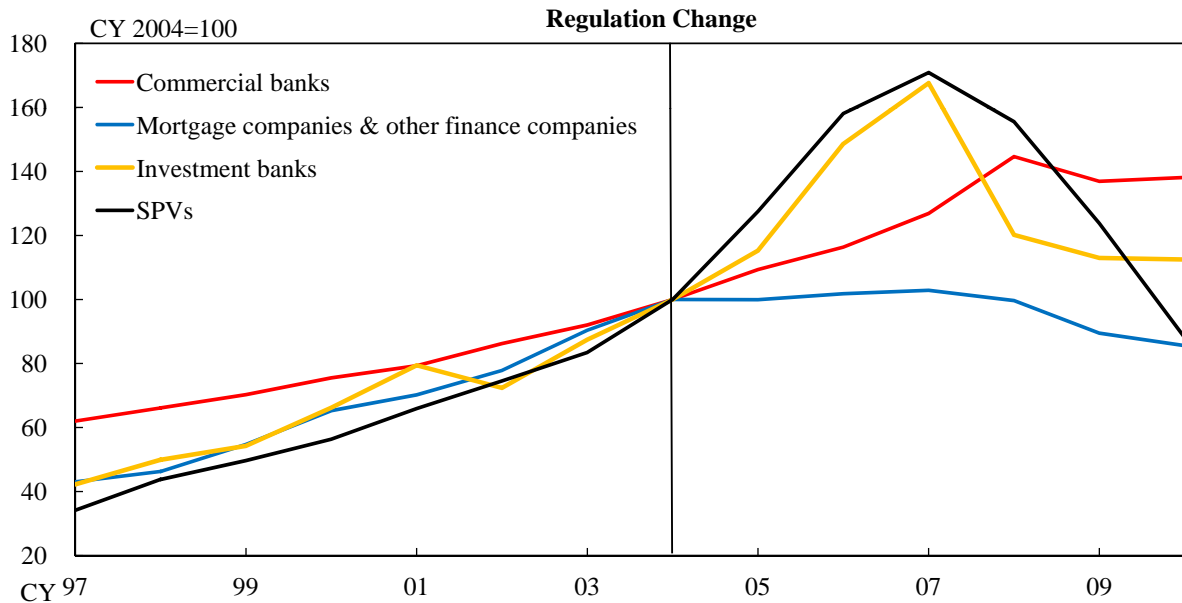
Source: CEIC.

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### (Chart 6)

## Sharp Increase in SPVs' and Investment Banks' Assets in U.S. after 2004

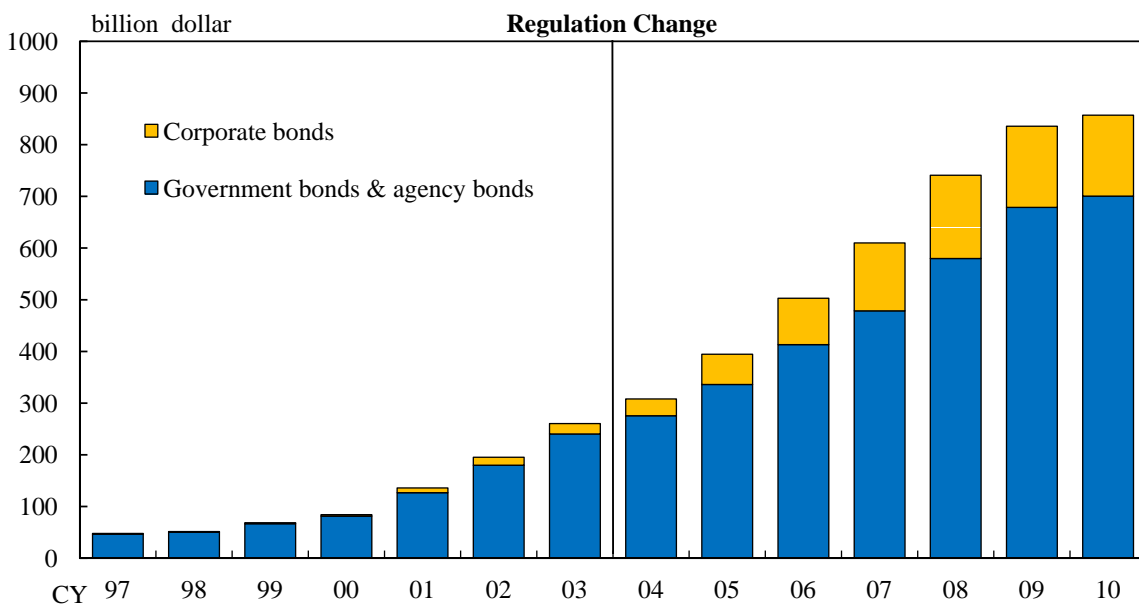


Note: The figures indicate the total financial assets.  
Source: FRB.

### (Chart 7)

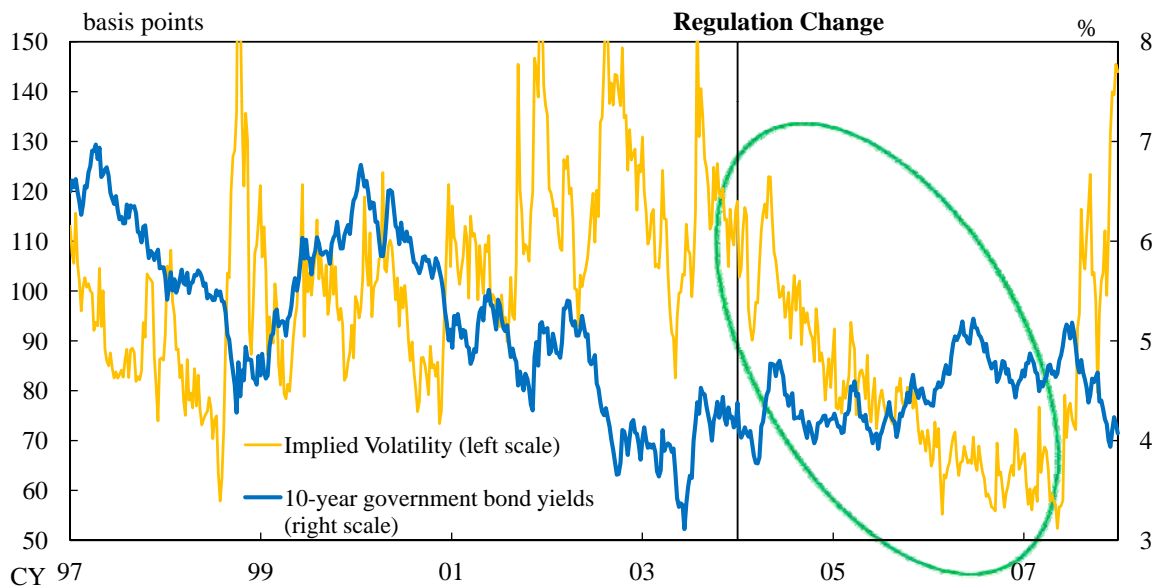
## Acceleration of Capital Flow from China, Especially into Government Bonds & Agency Bonds

Capital Flow from China to U.S.



Note: The figures are the amounts of the flows accumulated from 1990.  
Source: U.S. Department of the Treasury.

## (Chart 8) Remarkable Decline in Interest Rate Volatility after 2004



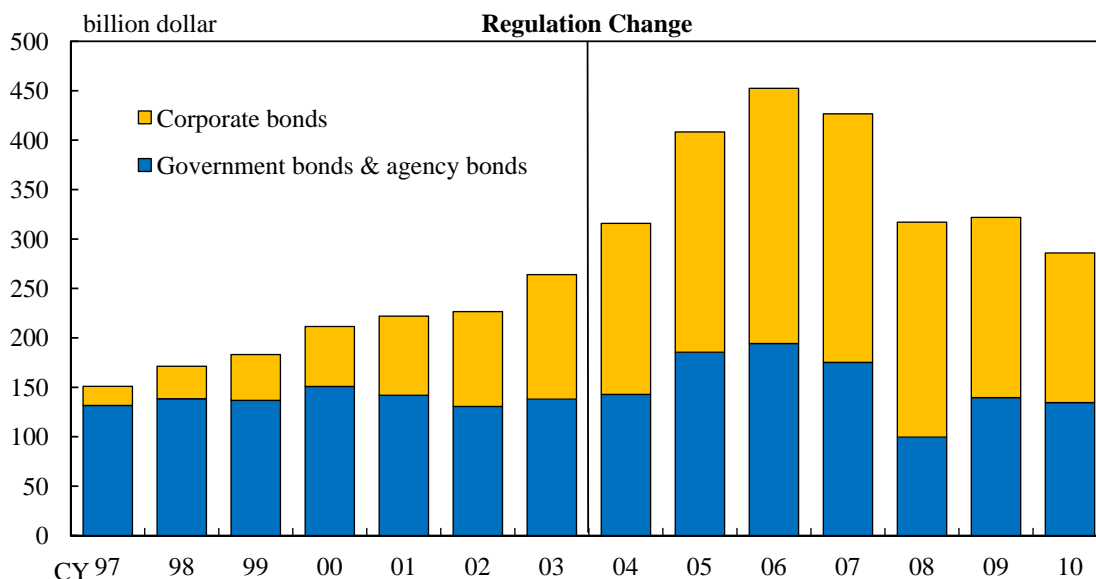
Note: The implied volatility indicates the weighted average regarding the implied volatilities of 2-year, 5-year, 10-year, and 30-year Government Bonds.

Source: Bloomberg.

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## (Chart 9) Acceleration of Capital Flow from European Countries, Especially into Corporate Bonds

Capital Flow from Eurozone to U.S.



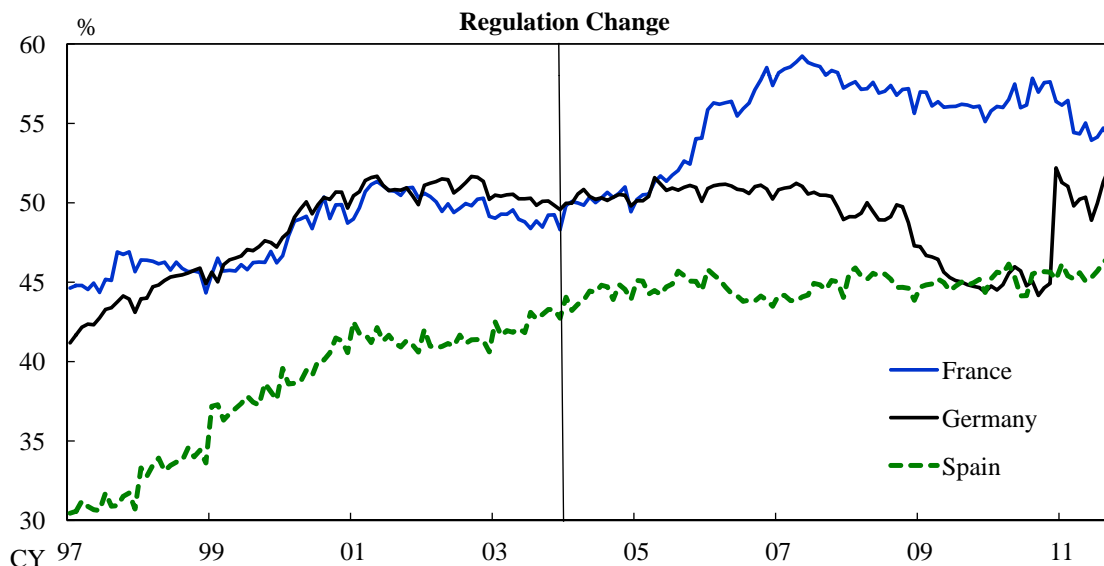
Note: The figures are the amounts of the capital flows accumulated from 1990.

Source: U.S. Department of the Treasury.

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# (Chart 10) Heightening Dependency on Market Funding by European Financial Institutions

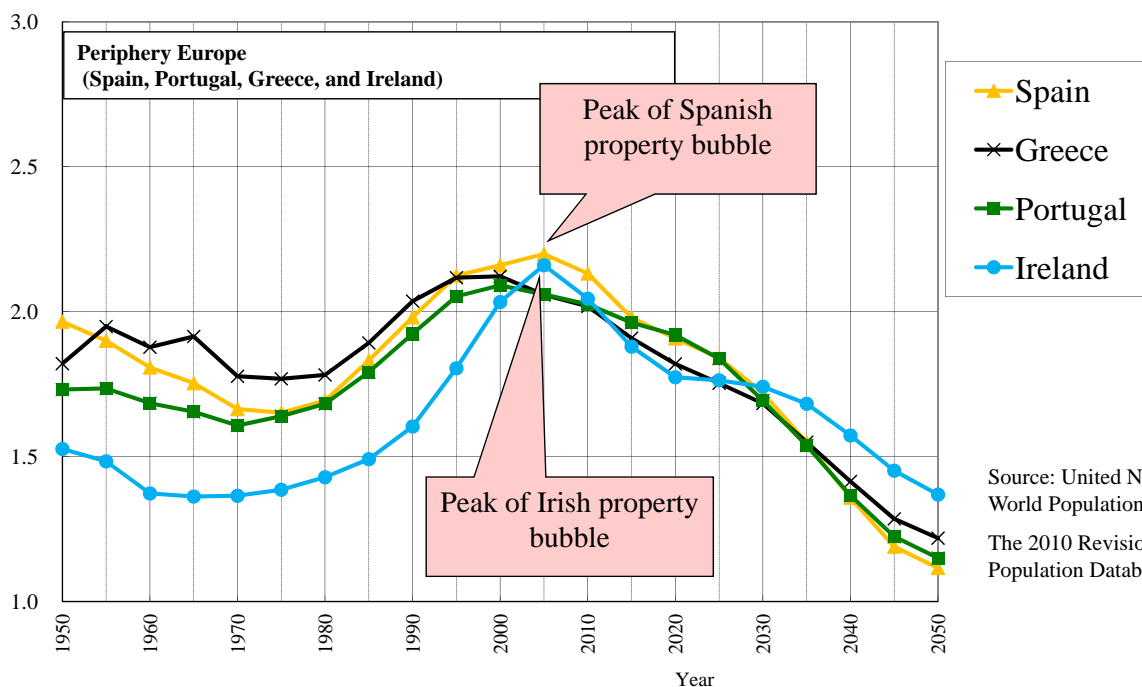
Ratio of Funding other than Deposits by Euro Area Residents



Source: CEIC.

# (Chart 11) Population Change and Bubble: Periphery Europe

Inverse Dependency Ratio: Ratio of Working-Age Population to the Rest  
= How many people of working age have to provide for one dependent person?



Source: United Nations World Population Prospects: The 2010 Revision Population Database