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"Financial Crises, and the Future of Global and Asian Banking"

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It is a great pleasure to have been invited to participate in this session on financial crises and the future of global and Asian banking. I am particularly honored to be sharing the podium with Professor Takatoshi Ito, whose research interests have paralleled my own in studying the impact of banking problems in Japan; and Dr. Prasarn Trairatvorakul, Governor of the Bank of Thailand and thus a colleague in central banking.

As always, I should note that the views I express today are my own, not necessarily those of my colleagues on the Federal Reserve's Board of Governors or the Federal Open Market Committee (the FOMC).

The important role that financial institutions play in macroeconomic stability – or *in*stability – has been reaffirmed in recent years. Large global banks amplified economic problems in 2007 and 2008, and contributed to the pervasiveness and severity of the recession experienced around the world. Since that time, many banks have taken the opportunity to improve their capital ratios and reduce their risk, and regulators have been focused on achieving a more stable financial system, not just on supervision of individual institutions.[1]

Indeed, global banks can provide some significant benefits because they are less susceptible to local economic problems, can introduce state-of-the-art technology and risk management tools, and provide highly competitive rates for firms to finance global trade. Despite enhanced risk-management strategies and the attention many global banks have given to improving their financial resilience, these banks still have the potential to adversely impact[2] global financial stability and economic outcomes – through their capacity to rapidly amplify and transmit significant financial shocks across sovereign and continental borders. So the banks are certainly worthy of the additional study and attention they are now receiving.

Today I plan to briefly cover three related topics. First, I would like to discuss the economic outlook, with particular attention to recent economic trends in the United States. Second, I will examine the interconnectedness of global financial institutions. Third, I will briefly review how intertwined banking markets showed themselves to be in 2007-2008 – with an eye to what we might expect should we experience a significant financial shock emanating, for example, from Europe.

The Economic Outlook

Before talking about these banking issues, I think it is important to provide some economic context to our discussion. In the U.S., the 2007-2009 recession led to significant excess capacity,

particularly in the labor market. Although the unemployment rate has declined since it reached its peak in October of 2009, significant excess capacity remains.

Recent data from both the United States and China are consistent with a slowdown in economic growth, and it looks like Europe is in a recession – with some European countries experiencing sharply negative growth. Based on recent incoming data, many economists have been downgrading their forecasts for the United States. Consistent with this trend, members of the Federal Open Market Committee – which sets monetary policy in the United States – recently released (in June) forecasts for the U.S. economy which show deterioration from the April economic forecast.

The projections shown in **Figure 1** represent the central tendency of the forecasts provided by the Fed Governors and the Federal Reserve Bank presidents. The three highest and three lowest forecasts are dropped to provide the central tendency. As the figure indicates, the central tendency has shifted, and now reflects an expectation that economic growth will be positive but quite weak. Consistent with that forecast, the FOMC participants now expect little improvement over the remainder of the year in the unemployment rate from its current level of 8.2 percent. In terms of inflation, the expectation is that personal consumption expenditure (PCE) inflation will be well below our target of 2 percent – with lower oil and commodity prices, a stronger dollar, and very subdued labor costs all contributing to the lower inflation estimate.

Despite this rather gloomy collective forecast, I actually have been more pessimistic than my colleagues. My forecast for GDP is below the central tendency, my forecast for unemployment is above the central tendency, and my forecast for inflation is at the bottom of the range of the central tendency. My pessimism is rooted in an expectation of weakness in investment, net exports, and government spending. That weakness is driven in part by concerns about economic and financial

conditions in Europe, combined with restrained state and federal government spending as the U.S. (like many other countries) grapples with large budget deficits.

In particular, my discussions with bankers, exporters, and business managers indicate more restraint by firms in investing in capital, and in hiring employees, as the firms wait for some of the economic uncertainty to be resolved. However, a quick resolution for European sovereign debt concerns and banking problems may remain elusive,[3] and the same for the large deficit problems in many countries. This suggests that slow growth is likely to continue for quite some time.

Figure 2 shows business fixed investment in the United States during the most recent four quarters. As you can see, with concerns over Europe heating up in the last two quarters, business fixed investment has slowed. Firms have become more tentative, which I expect will, unfortunately, continue. One reason for my pessimism is the recent weakness in orders for capital goods, for example aircraft.

Indicating just how weak employment has been, **Figure 3** compares the monthly change in U.S. employment during the most recent and past three recoveries. As you can see, compared to the average of the last three recoveries, employment data have come in quite weak. Employment growth is slower now – in the third year of recovery – than it has been at the same point in any of the previous three recoveries. In fact, just in the past three months employment growth in the U.S. has slowed fairly noticeably. Admittedly, the rate of growth is just one facet of the employment situation – employment-level comparisons are important, and currently sobering. I will turn to that a bit later, but for now will just observe that these growth rate indicators are not a positive sign. Apparently, firms have become more tentative in the face of growing global economic uncertainties. The slowdown in employment growth not only hinders our ability to get to full employment, but also weakens the consumer side of the economy even more, going forward. This suggests a self-fulfilling

dynamic at work as concern over a potentially significant slowdown in the future reduces current growth, as firms invest less capital and hire fewer workers than they would in the absence of these uncertainties.

Banking Interconnectedness

Given my concerns that economic growth will disappoint, what are the implications for global banking? I would highlight first the high degree of interconnectedness between and among global banks, particularly among U.S. and European banks. In New England, where I reside, three of the five largest banks active in the region are foreign – from the U.K., Canada, and Spain. This is not just a New England feature, as foreign and in particular European banks are very active in both retail and wholesale markets throughout the United States.

Figure 4 lists the ten largest foreign banking organizations in the United States by total U.S. assets. Five are European banks, three are Canadian, and two are Japanese. Several of the largest banking organizations have subsidiaries that have substantial retail franchises in the United States. In addition, the total assets of branches and agencies of three of the banks exceed $100 billion, likely indicating very significant "wholesale" operations, since most branches and agencies have virtually no retail deposit accounts in the United States because they cannot be FDIC insured.

While several Japanese banks have had a significant presence in the United States, their role has diminished over the past 15 years. And no other Asian banks are among the largest banks operating in the U.S.

Figure 5 presents the assets of the ten largest U.S. broker-dealers owned by foreign banking organizations. The chart shows that European firms have a very significant presence in the United States. The six largest foreign-owned broker-dealers are all European, and all have assets over $100

billion. These foreign-owned broker-dealers provide a variety of market-making and underwriting activity. This means that many European banks are highly interconnected with the U.S. financial system. Again, with the exception of one Japanese bank, the Asian bank presence in the U.S. is not nearly as significant as the European presence.

Figure 6 plots some broad stock indices for the U.S., Europe, China, and Japan. The indices for the U.S. and Europe move very closely together throughout the crisis period – and while they continue to move closely together, more recently the European index has drifted lower. In contrast, while all the stock indices experienced sharp declines in the fall of 2008, over time the Asian indices are generally not as tightly connected with those of the U.S. and Europe.

Figure 7 plots the 26-week trailing correlation of U.S. and European stock index returns over the last six years. The chart shows a very high and consistent correlation between the stock indices, indicating a very close link between U.S. and European markets. **Figure 8** plots the 26-week trailing correlation of the returns of U.S. and European bank stocks. They too show a high degree of correlation, which has remained relatively stable. Given the close trade and financial ties between the U.S. and Europe, this may not be surprising.

European stocks were badly impacted by the financial shock from the U.S. during the last financial crisis. Were there to be a serious financial shock from Europe, these correlations suggest it is quite likely that it would have a large impact on financial stocks and the broader stock market in the United States. Such stock price declines could impact households and businesses on both sides of the Atlantic, and problems in Europe could potentially cause a more significant retrenchment by European financial institutions operating in the United States.[4]

What about Asia?

As I mentioned earlier, historically Asian banks have not been as integrated with the United States as European banks. While Asian banks have certainly been impacted by the global slowdown and reduction in international trade, their lesser degree of interconnectedness compared to European banks means one might not expect to see as tight a link to financial problems emanating from the United States for Asian banks.

Figures 9 and 10 show the correlations between U.S. large (global) bank stock returns and those of Japan and China. During the early stages of the financial crisis in 2007, there was a very low correlation between bank stock returns in the United States and Asia. However, that correlation has risen over time, although it still remains below the correlation between U.S. and European global banks.

Figures 11 and 12 show the correlations between European bank stock returns and those of global banks in Japan and China. They also have been rising over time. These rising stock return correlations may in part reflect a rising degree of interconnectedness between Asian financial institutions and their U.S. and European counterparts over the last six years.

The Bank for International Settlements provides data that highlight why the correlations may be increasing. **Figure 13** shows that U.S. and U.K. banks have been increasing their presence in Asia and that other European banks have significant exposures as well.[5,6]

Turning to exposures to Europe, **Figure 14** shows that U.S. banks have increased their claims[7] in Europe. This raises the possibility that the correlation between returns in the U.S. and Europe could be nearly as tight in the event of a European disruption as they proved to be during the U.S. financial crisis. Only Japan and Taiwan currently provide data on foreign claims in Europe, but they also are at relatively high levels. It should be noted that both in this graph and the previous, the

conversion of two investment banks into bank holding companies causes a significant break in the U.S. series in the first quarter of 2009 – most noticeable on Figure 14 where there is a sharp increase in that period. Nonetheless, even after accounting for that break, the trend is the same, and the level of exposure is quite high.

In sum, while Asian banks did not have a high correlation with U.S. and European bank stock returns during 2007 and early 2008, Asian banks are likely to be more impacted now should a significant shock occur in Europe. European bank presence in Asia has been rising, and Japan and Taiwan have relatively large claims in Europe.[8] In short, I would say that as interconnectedness increases globally, it will be difficult for any one region to insulate itself from financial strains or crises elsewhere in the world.

Concluding Observations

In summary and conclusion, I would note that recent data have been consistent with a slowdown in economic activity in many parts of the world. This likely reflects a widespread concern that global trade may be disrupted if there is an international financial shock, and that businesses are postponing hiring and investment decisions until the global outlook is more certain.

While a large financial shock would impact the global economy, global banks have the potential to amplify that shock. While Asian global banks' stock returns were not highly correlated with those of U.S. and European global banks in the last crisis, the correlation has been on the rise over the past six years. Beyond the obvious trade impact if problems were to get worse in Europe, the concern is increased due to financial markets and global banks becoming more interconnected.

Figure 15 compares employment from its pre-recession peak in the U.S., Europe, and Japan. While U.S. employment has been gradually increasing during the recovery, it remains well below the

pre-recession peak. While the declines in Europe and Japan were not as dramatic, there has been little improvement overall in the employment situation during the recovery. Given global employment and fiscal challenges, the global economy remains quite vulnerable to financial shocks. This vulnerability highlights why it is particularly important at this time to reduce the probability, and mitigate the severity, of any potential financial shock.

Thank you again for inviting me to speak with you today.

NOTES:

[1] That is, macroprudential in addition to just microprudential supervision.

[2] And, of course, be impacted by.

[3] Encouraging signs did emerge in the last ten days. As *The New York Times* reported, "This week's economic summit among European leaders has exceeded expectations. New ground has been broken in an agreement that would allow Europe's joint rescue funds to be used to recapitalize struggling banks in European Union member states and that would establish a single bank supervisory mechanism under the European Central Bank." June 29, 2012: http://www.nytimes.com/2012/06/30/business/global/daily-euro-zone-watch.html?_r=1&ref=world

[4] Of course, the patterns of exposure in European versus U.S. banks would have an impact on how such a retrenchment played out. European banks clearly held mortgage-related assets and other assets that were sensitive to U.S. disruption. The degree and manner in which U.S. banks hold assets that would be sensitive to European disruption could differ. However, later in this talk I discuss correlation and with Figure 14 I note that U.S. claims on European assets have risen.

[5] It also highlights that European banks have larger overall claims in Asia than U.S. banks.

[6] Among European countries, the U.K. has been increasing its presence in Asia, while other European countries have reduced their presence. Among European countries, the U.K. presence is slightly higher than that of the rest of Europe combined.

[7] Claims include loans, securities holdings, and equity holdings, and reflect the bank's foreign exposure to that country. Claims include exposures held in the home country bank, as well as those held in branches or subsidiaries in the host country.

[8] One major transmission mechanism for a European financial shock would be through contagion associated with the assessment of risk in general. A significant rise in the risk spreads in the U.S. need not be a bank phenomenon (it could just be rising common exposures – everyone at risk is increasingly at risk from a global downturn), but it could have large real effects.