I'm honored to speak at the Best in Business breakfast at this challenging time for national economic policy.

This is my second move to Atlanta. My first introduction to Atlanta was the summer of 1978. My wife and I found a vibrant and welcoming city that deserved the title "capital of the New South."

My wife—now deceased—was a Southerner from Virginia. This week would have been our 35th wedding anniversary. Part of my affection for this place and the South in general derives from my many great years with her including 10 years here in Atlanta.

I remember many amusing stories about her Virginia upbringing, but one—a story from her college years—seems to fit the current circumstances.

She attended Hollins College in Roanoke, Va. There, she took an art history course from a professor she described as brilliant, passionate about art, but a little odd in dress and mannerisms. We all have a mental image of such a college professor. When it came time for the final exam in the course, he passed out a sheet with this very concise assignment. The exam question read, "After the visual feast comes the dyspeptic sequelae. Discuss."

Translated, that phrase refers to indigestion. And the discomfort (or worse) we sometimes feel after a big meal seems an apt way to describe conditions in the housing sector and the debt capital markets. This morning, I will discuss recent events in housing and capital markets. I'll also share with you some principles I use to help guide my thinking on Federal Reserve actions in times like these.

The housing downturn spreads to capital markets
Since I became Atlanta Fed president in March, I have devoted particular attention to the sharp and persistent downturn in the housing sector both nationally and in the Southeast.

For instance, the nation's inventory of new homes for sale has increased sharply this year and is now almost eight months' supply at the current pace of sales. Housing permits in July declined nationally by around 24 percent from a year earlier.

The problems with housing are also evident in housing finance—the mortgage market. I know you are all very much aware of the subprime mortgage market—the epicenter of recent turmoil in financial markets. Let me provide a little background.

Our nation has more than $10 trillion of mortgage debt. About 60 percent is securitized. In other words, these individual mortgages are no longer held as assets on the books of banks or other mortgage originators but have been pooled. The pools have been structured as securities that have been sold and traded in a vast and growing global market.

Buyers have included structured investment vehicles (SIVs) fully or partially devoted to subprime mortgage securities, money market funds, hedge funds, foreign banks, insurance companies, pension funds, and other investment funds. Exposure to the U.S. mortgage market has been distributed globally. In fact, we don't know exactly where all the exposure to this class of securities rests.

The linkages are complex, but here is my synopsis of recent market turmoil. Since mid-2006, home price appreciation slowed, and recently prices have fallen in some markets. Earlier in 2007, markets perceived that subprime mortgage credit quality was deteriorating markedly. Delinquencies among subprime borrowers have been rising and are expected to continue to rise as many borrowers have difficulty refinancing. The initial low rates on their adjustable-rate mortgages are resetting to higher rates that imply much higher monthly payments. At the same time, stagnant housing prices have eliminated their option of refinancing at lower rates or selling their house at a profit.

The spike in delinquencies has affected not only the mortgage holders but also other segments of financial markets, including the market for asset-backed commercial paper. As background, the commercial paper market links investors directly with corporate borrowers without intermediation by banks. About half the current commercial paper market is so-called SIVs that invest in financial assets. Holders of the asset-backed commercial paper obligations of SIVs came to recognize the increased risk and, in many cases, refused to roll over or refinance the short-term debt of these borrowers.

In turn, the securities that included significant amounts of the subprime mortgages became hard to value. The secondary market for these securities shrank dramatically. I would describe this development as a closed loop. Valuation uncertainty reduced secondary market trading. Little or no trading made it even more difficult or impossible to value the securities by market price.

Faced with these valuation difficulties, broader market participants have become wary of classes of structured debt securities beyond subprime. For instance, markets for jumbo prime mortgages also experienced liquidity problems.

Investment funds believed to be heavily exposed to subprime mortgage–backed securities and other structured debt securities have faced some redemptions and cancellation of borrowing facilities used to acquire the securities in the first place. This development forced sales of other classes of securities in their portfolios, and
Many investment funds bought these securities "on margin" (using debt), and this fact is important. By employing leverage, many funds pursued enhanced returns. But now we're seeing firms try to improve their liquidity by reducing debt and lowering their exposure to risky assets. This process—called deleveraging—appears to be widespread across the financial system.

The risk of a financial crisis is affecting a market—the leveraged loan market used by private equity deal sponsors. This market has backed up markedly—loan commitments intended for syndication have not closed because of weak distribution prospects. By some estimates, more than $400 billion of such financings are in backlog.

Equity markets have experienced more volatility at least in part because of an increasingly uncertain environment for corporate earnings and the stalling of buyout activity.

Information deficit and repricing of risk

The current conditions of the capital markets—particularly the debt capital markets—have been described as a credit crunch, a liquidity squeeze, a liquidity crisis becoming a solvency crisis, a crisis of information, and a repricing of risk. I'd like to comment on two of these interpretations, namely, the information deficit and the repricing of risk.

The markets are indeed experiencing a significant information deficit. Market participants are struggling to discover, one, the true performance of subprime pools, two, where exposure to these and other structured instruments ultimately rests, three, the risk, therefore, associated with trading and borrowing counterparties, and, four, the linkages between asset classes, funding markets, and institution-to-institution exposures.

The opaque nature of our current financial world is the result of a long trend of replacing direct bank lending with less transparent investment vehicles in securities markets. In the coming weeks we will see more disclosure of institutional gains and losses as well as performance trends of portfolios and securities. But I believe clarity will take more time.

Second, in my view, we're witnessing more than just a repricing of risk. The credit markets of recent years feasted on a low cost of capital through leveraged investing and aggressive financing structures at both the retail and wholesale levels. I believe we're also seeing a broad retreat from higher-risk practices, such as

- no document/no equity mortgages,
- covenant-light leveraged buyouts, and
- the carry trade—in other words, borrowing in one currency to invest unhedged in debt instruments in another.

I believe we've been experiencing the unpleasant process of the financial world changing its ways after a prolonged period of relatively cheap credit and in consequence, high leverage. What we've been going through is an intense adjustment in both price and practice, and this process may be continuing.

How did all this come about? Underlying these developments was a financial world awash with funds (or liquidity) looking to be invested. Low interest rates were a worldwide phenomenon during and after the 2001 recession. Despite many central banks raising short-term rates since 2004, long-term rates have remained relatively low. Low rates—combined with the ample liquidity provided by globally integrated capital markets—provided an environment for financial innovation. We also saw aggressive practices and the use of leverage.

Economic performance and price stability

Until a few weeks ago, the liquidity conditions continued, and the outlook was good, on balance. Global growth was (and remains) strong. After a weak first quarter, U.S. growth was expected to rebound strongly in the second quarter, which is what occurred.

With the exception of declines in housing-related industries such as construction, building supplies and mortgage servicing, employment growth overall was maintained through the first half of the year. But new employment data released last Friday reflected downward revisions for June and July, with moderating job growth in services industries. In August hiring declined for the first time in four years.

Readings from July show that consumer spending remained strong, and business investment during the second quarter picked up momentum. The most serious negative aspect was—and is—the housing sector.

My colleagues at the Federal Reserve and I have been watching for signs of spillover from the housing and mortgage market adjustment into other sectors of the economy, especially consumer spending. Weakening home prices, less available credit, and higher interest rates could cause a slowdown in home equity withdrawal for consumption. The reduction in overall household wealth could pull down overall household spending.

Last Thursday, I said in a speech that I had not seen conclusive signs of weakness in the broader economy. Friday's data, however, show employment was beginning to soften back in June. This news should be evaluated with recently positive reports in retail sales. I'm processing this information along with other timely information as I prepare for next week's Federal Open Market Committee (FOMC) meeting.

At our August 7 meeting, the FOMC described economic growth as "moderate." At that time, the statement said, "the Committee's predominant policy concern remains the risk that inflation will fail to moderate as expected."

This statement reflected the importance of the Fed's ongoing efforts to lean against inflation pressures. In a sequence of 17 rate hikes, the Fed increased the federal funds rate from 1 percent in June 2004 to 5.25 percent in June 2006, where it has since rested.

I believe these efforts have yielded measurable success. Inflationary pressures have softened somewhat in recent months. Inflation expectations remain well contained. By some measures, the pace of inflation is now around 2 percent.

In my view current readings of inflation represent progress, but not victory. I would like to see inflation sustained at a somewhat lower rate—with emphasis on "sustained."
If inflation is allowed to accelerate, bringing it back down will be costly and painful. High and unstable inflation can distort economic decision making and—once ratified by public expectations—is difficult to reverse. By contrast, low and stable inflation fosters an economy that's conducive to rational business activity and resistant to exogenous shocks.

Looking back to a month ago, it seemed—all in all—we had ongoing economic expansion and declining inflation.

**A change in circumstances**

Then, after our last FOMC meeting, deteriorating conditions in financial markets changed the economic outlook. On August 17, the FOMC statement said that "the downside risks to growth have increased appreciably." The balance of risk to the economy seems to have shifted. We're facing greater uncertainty in the economic outlook.

As you know, I'm a new central banker and policymaker. But I bring to this new role experience in the financial sector touching on a wide range of business lines, asset classes, and types of institutions. I know during a feast there is a strong incentive for market participants to meet the competition and seek competitive advantage by pushing the risk-reward envelope.

Some of this pushing of limits amounts to sustainable innovation. Many of these innovations served desirable ends and allocated greater risk to those investors who had an appetite for it. The subprime mortgage market has brought the American dream of home ownership to many people who previously could not qualify for mortgage loans. These developments, on balance, have been a good thing. But some pushing of limits, in my view, will prove to have been imprudent excess.

The causes and possible consequences of the current turmoil in financial markets were discussed widely the week before last at the Kansas City Fed's annual conference in Jackson Hole, Wy. The conference focused on housing, housing finance, and monetary policy and was attended by central bankers, academics, financial practitioners, as well as members of the press. As expected, analysis and opinion were varied, and policy prescriptions ran the gamut from strong intervention to cautious and watchful monitoring of developments.

In his remarks at the conference, Fed Chairman Ben Bernanke reiterated that the Fed stands ready to take whatever action is needed. His remarks followed previous actions to inject liquidity into the financial system through open market operations and the discount window.

I believe the essence of our current challenge is to balance three interconnected and potentially conflicting concerns: timely action in response to risks to the total economy, preservation of gains achieved on the inflation front, and overall financial system stability.

**A matter of principles**

When confronted with complexity, uncertainty, and fluidity as we're currently experiencing, my approach is to ground my thinking and judgments in organizing principles. Let me share with you how I think about policy in times like these.

First, there is the principle of market discipline. Markets must be allowed to work. The risks and rewards of market participation should play out—to the extent possible—without interference. Policy should enable natural market functioning. Market participants should expect and actually experience accountability for their decisions through natural market processes. It is not the role of monetary authorities to change the risk-reward tradeoff of investment instruments and markets.

Unwarranted intervention in financial markets raises concerns about moral hazard. This problem could occur if investors come to believe that—because of likely Fed intervention—they are immune from severe downside risk. Intervention can distort risks and create incentives to take exaggerated investment positions.

Whether or not to intervene in markets is a judgment call. Although I believe that Fed intervention is appropriate if markets are clearly not working properly, I am aware of the potential pitfalls of such interventions. Caution may cause some observers to argue that the central bank is insufficiently preemptive in its actions. But I believe the Fed's longer-term objectives are well served by a deliberate and measured response to financial market turbulence. Such a response should distinguish, as much as possible, between liquidity actions aimed at keeping markets orderly and monetary actions aimed at cushioning the economy from the impact of financial market instability.

A second principle, however, is that the Fed has a responsibility to promote financial system stability. This responsibility at times may require actions that might seem to run counter to the first principle. If done effectively, there need be no necessary conflict between actions taken to ensure the orderly functioning of markets and the principle of allowing markets to efficiently allocate gains and losses.

Just last month, as investors became more and more reluctant to accept debt associated with subprime mortgages, markets began to seize up. Markets suffered illiquidity and essential transactions were not taking place. In some instances, lenders could not lend, borrowers could not borrow, traders could not trade, and accountants could not value positions.

One of the Fed's tools is providing liquidity. For several successive days in mid-August, the Fed injected liquidity through its daily open market operations. Then, on August 17, the Fed's Board of Governors announced a 50 basis point reduction in its primary credit discount rate for loans to financial institutions. This action (along with others) reduced the premium for borrowing from the central bank.

Markets responded favorably to these actions, but further volatility cannot be ruled out. As the FOMC said August 17, "the Committee is monitoring the situation and is prepared to act as needed to mitigate the adverse effects on the economy arising from the disruptions in financial markets."

My third informing principle is sustained focus on fundamental purposes and responsibilities. In the Fed's case, these are our long-run mandates to foster maximum sustainable growth and stable inflation. I believe it's important to keep in mind the longer-run implications of policy—what happens tomorrow, the day after tomorrow, and beyond. Allegiance to core institutional purpose has served the country well for many years.

**A balancing act**

To recap: My first principle is let markets work. The second principle is the central bank has a responsibility to promote orderly conditions in financial markets, stepping in as necessary to avoid severe system disruption. The third principle is to make sure the second principle doesn't undermine our long-term mission.

There are certainly tensions to be resolved in applying these principles, and formulating measured responses to circumstances requires good judgment, particularly in transitional periods. I believe we are in such a period now.
So, after the feast comes the dyspeptic sequelae. Fancy phrasing, but a simple notion. Housing and financial markets have feasted on a period of low rates and easy credit. I'm confident that market conditions eventually will settle down. As we move forward, my voice in Fed deliberations will be aimed at balancing response to immediate problems with concern for the best outcome for the long run.