

5E

EDUCATOR

**THE FINANCIAL
TURMOIL
EXPLAINED**

**PRACTICAL
LESSONS
FOR YOUR
CLASSROOM**

**NEW AT THE FED
IN ECON ED**



Welcome!

Dear Educators,

The Federal Reserve Bank of Richmond is pleased to present our new electronic newsletter, the *5E Educator*. The Enterprising, Effective, Enthusiastic, Exceptional, Economics Educator that is! We hope this newsletter will provide you with practical information and resources for your classroom.

On the following pages you will find educational opportunities for teachers and students, Web resources and publications to use in your classroom, all provided free of charge to you by the

Federal Reserve System. Each issue of the *5E Educator* will include content designed to increase your understanding of economics and a lesson plan geared toward either elementary, middle or high school students.

We invite you to take a look, and please feel free to write or e-mail with your questions and comments.

Sincerely,
*The Economic Education
Specialists at the Federal Reserve
Bank of Richmond*

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[www.richmondfed.org/
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The Recent Financial Turmoil and the Fed's Response

Federal Reserve Chairman Ben Bernanke

Excerpt from a speech given by Chairman Bernanke on October 15, 2007, entitled "The Recent Financial Turmoil and its Economic and Policy Consequences"

The past several months have been an eventful period for the U.S. economy. In financial markets, sharpened concerns about credit quality induced a retrenchment by investors, leading in some cases to significant deterioration in market



functioning. For some households and firms, credit became harder to obtain and, for those who could obtain it, more costly. Tightening credit conditions in turn threatened to intensify the ongoing correction in the housing market and to restrain economic growth.

The Origins and Evolution of the Financial Turmoil

Since early [2007], investors have become increasingly concerned about the credit quality of mortgages, especially subprime mortgages. The rate of serious delinquencies has risen notably for subprime mortgages with adjustable rates, reaching nearly 16 percent in August [2007], roughly triple the recent low in mid-2005.

At one time, most mortgages were originated by depository institutions and held on their balance sheets. Today, however, mortgages are often bundled together into mortgage-backed securities or structured credit products, rated by credit rating agencies, and then sold to investors. As mortgage losses have mounted, investors have questioned the reliability of the credit ratings. The loss of confidence in the credit ratings led to

a sharp decline in the willingness of investors to purchase these products. Liquidity dried up, prices fell, and spreads widened.

As the strains in financial markets intensified, many of the largest banks became concerned about the possibility that they might face large draws on their liquidity and difficult-to-forecast expansions of their balance sheets. These concerns prompted banks to become protective of their liquidity and balance sheet capacity and thus to become markedly less willing to provide funding to others, including other banks. As a result, both overnight and term interbank funding markets came under considerable pressure. Interbank lending rates rose notably, and the liquidity in these markets diminished.

The U.S. subprime mortgage market is small relative to the enormous scale of global financial markets. So why was the impact of subprime developments on the markets apparently so large? To some extent, the outsized effects of the subprime mortgage problems on financial markets may have reflected broader concerns that problems in the U.S. housing market might restrain overall economic growth. But the developments in subprime were perhaps more a trigger than a fundamental cause of the financial turmoil. The episode led investors to become more uncertain about valuations of a range of complex or opaque structured credit products, not just those backed by subprime mortgages. To be sure, these developments may well lead to a healthier financial system in the medium to long term: Increased investor scrutiny of structured credit products is likely to lead to greater transparency in these products and more rigor in the credit-rating process. In the shorter term, however, these developments do imply a greater measure of financial restraint on economic growth as credit becomes more expensive and difficult to obtain.

The Federal Reserve's Response to the Financial Turmoil

Fortunately, the banking system is healthy. Nevertheless, the market strains were serious, as

I have discussed, and they posed risks to the broader economy. The Federal Reserve accordingly took a number of steps to help markets return to more orderly functioning.

The Federal Reserve's initial action was to increase liquidity in short-term money markets through larger open market operations — the standard means by which it seeks to ensure that the federal funds rate stays at or near the target rate set by the Federal Open Market Committee (FOMC). The vigorous provision of funds through open market operations succeeded in damping pressures in overnight funding markets. Yet signs of broader financial stress persisted. On August 17, the Fed took further action when the Federal Reserve Board cut the discount rate — the rate at which it lends directly to banks — by 50 basis points, or 1/2 percentage point. Loans through the discount window differ from open market operations in that they can be made directly to specific banks with strong demands for liquidity. (In contrast, open market operations are arranged with a limited set of dealers of government securities.)

The Federal Reserve's actions to ease the liquidity strains in financial markets were similar to actions that central banks have taken many times in the past. Promoting financial stability and the orderly functioning of financial markets is a key function of central banks. Indeed, a principal motivation for the founding of the Federal Reserve nearly a century ago was the expectation that it would reduce the incidence of financial crises by providing liquidity as needed.

The Federal Reserve's efforts to provide liquidity appear to have been helpful on the whole. To be sure, the volume of loans to banks made through the discount window, though it increased for a time, has been modest. However, collateral placed by banks at the discount window in anticipation of possible borrowing rose sharply during

August and September, suggesting that some banks viewed the discount window as a potentially valuable option. On the other hand, no amount of liquidity provision by the central bank can be expected to solve the problems regarding the valuation of complex securitized assets or to reverse the credit losses on subprime mortgages. These underlying difficulties will be resolved only over time by financial markets.

Conclusion

In coming months, the Federal Reserve, together with other agencies both here and abroad, will perform comprehensive reviews of recent events to better understand the episode and to draw lessons for the future. For now, the Federal Reserve will continue to watch the situation closely and will act as needed to support efficient market functioning and to foster sustainable economic growth and price stability.

The full version of this speech can be accessed online at:

<http://www.federalreserve.gov/newsevents/speech/bernanke20071015a.htm>

Editor's note: Since the delivery of this speech, the Fed has taken further steps to ensure that adequate liquidity is available to the financial system. Among these are the creation and implementation of a Term Auction Facility, Term Securities Lending Facility and Primary Dealer Credit Facility. Each of these programs is designed to provide additional liquidity to the financial system.

To learn more visit:

<http://www.federalreserve.gov/monetarypolicy> and click on Policy Tools.

Lesson Plans for Your Classroom

The following lesson was written by an economic education specialist at the Federal Reserve Bank of Richmond. Our purpose is to provide K-12 teachers with easy-to-implement ideas for teaching the content presented in our lead article. Follow the link to access the full text of this lesson.

Using the Fed's *Beige Book* to Learn About the U.S. Economy

Ever wonder how investors and the general public can gain insight into the next FOMC meeting? Check out the *Beige Book*, a great overview of the economy of each of the Federal Reserve Districts. Follow the link below for an interactive lesson that immerses your students in the economic conditions of each Federal Reserve District.

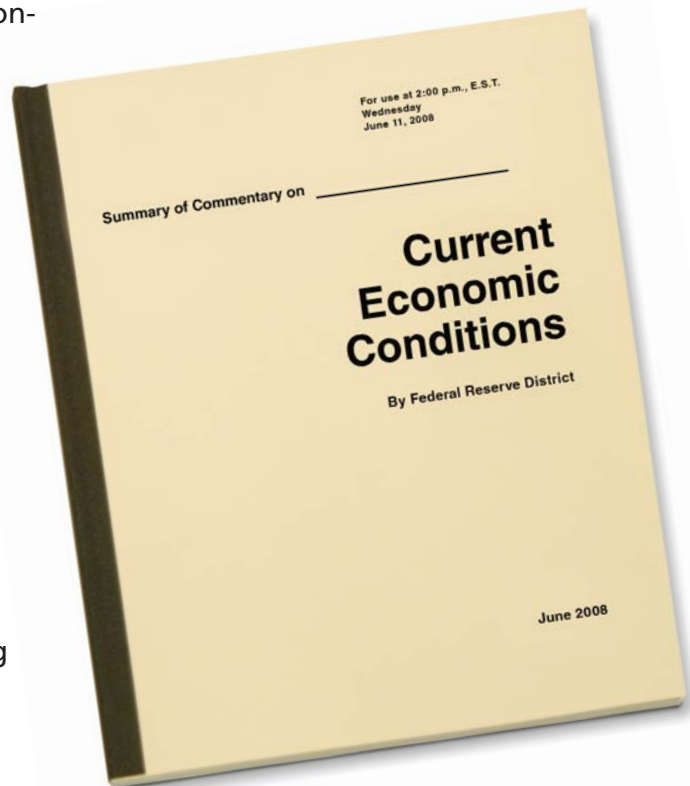
Recommended for: High school

Concepts:

- Federal Open Market Committee
- Monetary Policy
- Structure of the Federal Reserve System
- Unemployment
- Inflation
- Economic Growth
- *Beige Book*
- Credit Tightening

Special thanks to Kathryn Zepp-Imhoff of Frederick County Public Schools and Catherine Pace of Midlothian High School for field testing this lesson.

[View this lesson](#)



We welcome comments and feedback on these lessons and your recommendations for future lesson plan topics.

Workshop Opportunities in the 5th Federal Reserve District

Demystifying the Fed

Date: June 25, 2008

Location: Baltimore Branch of the Federal Reserve Bank of Richmond, Baltimore, Maryland

502 South Sharp St., Baltimore, Md.

Presented in partnership with the Maryland Council on Economic Education, this workshop is for Maryland high school social studies teachers. Featured speaker will be Andy Bauer, regional economist with the Federal Reserve Bank of Richmond, Baltimore Branch.

[Register for the event](#)

A National Conference for Teachers of AP Economics

Date: November 2-4, 2008

Location: Federal Reserve Bank of Richmond, Richmond, Virginia

701 E. Byrd St., Richmond, Va.

This national conference offers a forum for updates on topics of interest, demonstrations of effective teaching techniques as well as outstanding keynote speakers and networking with other AP teachers from across the country.

[Register for the event](#)

Midsized Economics

Date: November 13, 2008

Location: Baltimore Branch of the Federal Reserve Bank of Richmond, Baltimore, Maryland

502 South Sharp St., Baltimore, Md.

This workshop, cosponsored by the Powell Center for Economic Literacy and the Federal Reserve Bank of Richmond, will introduce middle school civics and economics teachers to several economic concepts including economic systems, money, banking and the Federal Reserve. Active learning strategies to teach these concepts will be demon-

strated. [There is no charge to attend. Lunch is provided.] To register contact Karen Kokernak at karen.kokernak@rich.frb.org or (410) 576-3441.

Kidsized Economics

Date: November 14, 2008

Location: Baltimore Branch of the Federal Reserve Bank of Richmond, Baltimore, Maryland

502 South Sharp St., Baltimore, Md.

The Kidsized Economics Workshop, cosponsored by the Federal Reserve Bank of Richmond and the Powell Center for Economic Literacy, is a one-day seminar for elementary school teachers. The goals are to provide the best possible training, excellent classroom materials and practical hands-on lesson plans for Maryland's educators. Powell and Federal Reserve staffs collaborate with award-winning educators to conduct this program. To register contact Karen Kokernak at karen.kokernak@rich.frb.org or (410) 576-3441.

Federal Reserve System Issues New \$5 Note

On March 13, Federal Reserve Banks began distributing the redesigned \$5 bill to banks in the United States, which will then distribute them to businesses and consumers. Consumers are not required to exchange their old \$5 bills for the new ones; both will continue to maintain their full face value.

The new \$5 bill incorporates state-of-the-art security features that are easy for cash handlers and consumers to recognize. Hold the bill up to the light to check for these features:

Watermarks: There are now two watermarks on the redesigned bill. A large number "5" watermark is located in a blank space to the right of the portrait replacing the previous watermark portrait of President Lincoln found on the older-designed bills. A second watermark — a column of three smaller "5"s — has been added to the new design and is positioned to the left of the portrait.

Security Thread: The embedded security thread runs vertically and is located to the right of the portrait on the redesign. The letters "USA" followed by the number "5" in an alternating pattern are visible along the thread from both sides of the bill. The thread glows blue when held under ultraviolet light.



Free educational materials are available to assist the public in recognizing the new design and detecting counterfeits. Since 2003, the U.S. government has offered public education and training materials on the new \$5, \$10, \$20 and \$50 bill redesigns. Materials are available to order or download in multiple languages at:

www.moneyfactory.gov/newmoney. Free lesson plans on the \$5 bill are available for download at: <http://www.stlouisfed.org/education/>

Featured Publications

E = elementary school **M** = middle school **H** = high school

New Historical Figures Bookmarks **E M H** are available; George Washington Carver, James Madison and Booker T. Washington. View bookmark activities and order bookmarks [online](#).

The Piggy Bank Primer **E** is a resource on saving and budgeting from the St. Louis Fed. It is appropriate for 6-9 year olds. Teachers can order up to 25 student workbooks and one teachers' guide. To order online go to: <http://www.stlouisfed.org/education/resourcetools> and click on the Piggy Bank Primer.

Great Minds Think: A Kid's Guide to Money **E** is a new financial literacy workbook for upper elementary students from the Cleveland Fed. Order classroom quantities by calling (216) 579-2025 or by e-mailing learningcenter@clev.frb.org.

Katrina's Classroom: Financial Lessons from a Hurricane **M H** is a four-chapter, DVD-based curriculum from the Atlanta Fed with lesson plans and student activities tied to each five-minute video segment. Developed by professional curriculum writers, each lesson plan expands and reinforces concepts aligned to national content standards in personal finance. Order [here](#).

The Great Depression Curriculum **H** was developed by the St. Louis Fed. The curriculum includes six stand-alone lessons that teachers can share with their students to help them understand this significant experience in U.S. history. You can learn more about the curriculum, view a copy of it or download it from:

<http://stlouisfed.org/greatdepression/>.

Symbols on American Money **H** is a 12-page booklet from the Philadelphia Fed that examines the various images and symbols that have been used on U.S. currency over the years. The booklet is available for [download](#) and can be ordered [here](#).