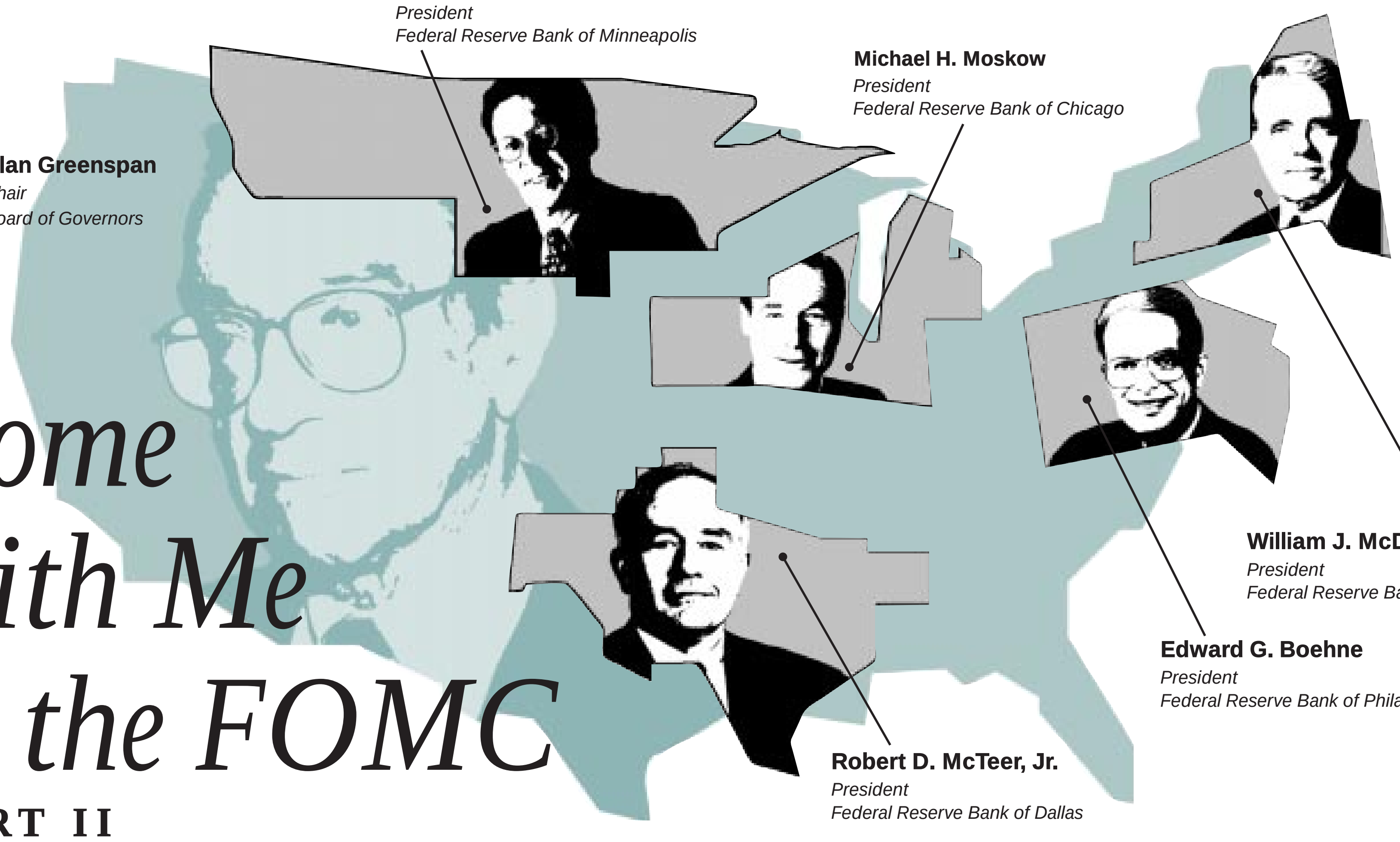
On RESERVE

A resource for economic educators from the Federal Reserve Bank of Chicago

Number 43, April 1999



Come with Me to the FOMC

PART II

"A disordered currency is one of the greatest political evils." – *Daniel Webster*

The previous issue of On Reserve, *contained an edited portion of a speech by Federal Reserve Governor Laurence Meyer titled "Come with Me to the FOMC." The issue covered basic information about a typical meeting of this important body. It discussed the usual "sequence of events" involved in the first part of the meeting, the "go-around." It also included a basic economics lesson about monetary policy.*

This issue of On Reserve *continues with the remaining edited and updated portion of the speech. In this section, we read about how the policy options are presented, how the vote is taken and how the policy directive for the Open Market Desk is worded. The first half of this article is available by contacting the Federal Reserve Bank of Chicago, and requesting a copy of* On Reserve *#42. The entire speech is also available on the Board of Governors Website under "Speeches."*

The Policy Options

We join the FOMC after the morning go-round. The Committee reassembles to hear the policy options by the Director of Monetary Affairs, who also serves as Secretary of the FOMC. The policy options were detailed and circulated to the Committee in advance in a document called the Blue Book, again to reflect the color of its cover. The earlier outlook discussion has laid the groundwork for the policy decision. It has focused on where the economy is relative to full employment, how fast the economy is growing relative to its long-term trend, and whether inflation pressures are building. The staff forecast has provided one view of whether current policy is consistent with the Fed's objectives of full employment and price stability.

The Director's presentation will outline policy options, with the emphasis on the plural. A particular course of action is not presented to the Committee. Rather the Director will offer options and provide a coherent rationale for each of the options. This has not always been the practice, however. Today, it would be a remarkable incident if there was any disagreement among the Board staff around the FOMC and none of the staff venture their views about the appropriate course of policy.

The Blue Book might discuss as many as three options. Option A is always a decline in rates. Option B is always no change in the target funds rate. And option C is always an increase. Depending on the circumstances, the book may explicitly offer only two options. That is, in cases where it appears clear that the decision will either be to hold rates constant or to increase them, the staff will not offer an option of a decline. But, the FOMC is free to make any decision it wants, whether or not the staff has identified that option. In addition, the staff options will also indicate an amount of change — typically 25 basis points, or one quarter percentage point, but sometimes 50 basis points.

The second policy decision that will be made at the meeting is more subtle — a decision between what is referred to as a symmetric and asymmetric posture. This involves two issues. First, how likely is a change in policy in the period between this and the next meeting? A symmetric directive implies less chance of a change between meetings than an asymmetric directive. Indeed, some would interpret an asymmetric directive as providing more leeway for the Chairman to change policy during the period between meetings. A symmetric policy is more limiting of the Chairman's discretion. But, in any case, the FOMC will expect to be consulted — in the form of a telephone conference call — in advance of any policy move. A second interpretation of the directive is information on whether the next policy move is more likely to be up than down. This is like a reminder to the Committee that a policy action might be in the offing.

After the staff presentation of policy options, the Chairman offers Committee members the opportunity to question the Director of Monetary Affairs on issues related to the policy options. Then the Committee is ready for the second go-round, this one on policy. The difference in this case is that the Chairman goes first. He will lay out his view of the outlook and then bridge to his policy prescription. This presents the link from the earlier outlook discussion to the current policy decision and gives the Chairman the opportunity to lead the Committee, both toward the position he is advocating and toward a consensus. This is followed by each of the members, in no prescribed order, laying out their views on the policy decision. They comment on both the target funds rate and whether the posture should be symmetric or asymmetric. When the decision is quite clear, there may be very little discussion during this go-round, with members mainly indicating their agreement with the position recommended by the Chairman. In cases where the decision is less clear, there will be individual presentations.

Many differing views are presented in the outlook go-round and, where circumstances justify it, in the policy go-round. There is encouragement for each member to clearly present his or her own perspective.

1 *Taking the Vote*

Now the critical moment is approaching, the time to vote. Here two traditions come into play. The first is that the Chairman is always expected to be on the winning side of a policy vote. There has not been a case within memory where the Chairman has not been on the winning side of a policy vote of the FOMC. The Chairman is likely to have a good idea of how Governors are leaning, even before the meeting. Board members occasionally discuss the appropriate course of policy at their regular weekly meetings when they consider requests of Reserve Banks for changes in the discount rate, especially on those occasions preceding FOMC meetings. In addition, the economic and policy situation naturally comes up in informal individual discussions between Board members. Moreover, as all the FOMC members give their views on the economy during the first part of the meeting, one can often infer their vote — though there are surprises from time to time.

A second tradition is to try to reach a consensus on the policy decision. It is quite common for there to be differences of opinion and yet a unanimous vote. This would be the case, for example, where the question was one of timing rather than of principle. Unanimous votes are common. One or two dissents are not unusual, but more than two dissents at a meeting are rare.

Because of these two traditions — that the Chairman is always on the winning side of a vote and that the Committee strives to reach a consensus — the Chairman's presentation at the start of the policy go-round is very important. It is the key moment, other than the vote itself at the meeting. There is a special sense of anticipation here because the Chairman often will provide some new data or some new insight in support of his position. Indeed, the Chairman is the most likely of the Committee members to challenge the group with a new way of thinking about recent developments. The Chairman presents a very forceful and clear argument for a specific policy recommendation.

The recommendation, nevertheless, might be more decisive in the direction and size of the move than with respect to whether the posture should be symmetric or asymmetric. The focus of the comments that follow are why members agree, would prefer another course but can accept, or strongly disagree with the Chairman's recommendation.

When the policy go-round has been completed, the Chairman summarizes his sense of the consensus. For example: No change in the funds rate (option B) and a symmetric directive. Next the directive to be voted upon is read by the deputy secretary, conforming to the outcome of the discussion. The directive identifies the target funds rate and whether policy is symmetric or asymmetric. The directive is, in effect, the instructions to the Manager of the System Open Market account at the Federal Reserve Bank of New York. He is to conduct open-market operations between meetings so as to achieve the intended funds rate as closely as possible. Recently, the wording of the directive was changed to make it more transparent. Previously, it instructed the Manager, for example, to tighten reserve positions slightly, somewhat, or significantly. These corresponded to a 25 basis point, a 50 basis point, and a 75 basis point increase respectively. The revised practice is to report in the directive precisely the outcome of the vote — a 25 or 50 basis point increase or whatever.

The directive also indicates whether there is a bias with regard to the direction of possible adjustments to policy between meetings or subsequently. The existence or absence of a bias is indicated by use of the words, “more likely” or “equally likely” with regard to potential changes in the federal funds rate operating objective. For example, a directive biased toward restraint would note that the prospective developments were “more likely” to call for an increase than a decrease in the federal funds rate.

Now it's time for the Deputy Secretary to poll the Committee. The Chairman votes first, the Vice Chairman second, followed by the other voting members in alphabetical order. (The current voting Presidents are featured in the graphic on the first page). This is the first and only occasion when the Reserve Bank presidents are treated differently depending on whether or not they are voting at that meeting. Up until this point, all have participated on equal terms in the discussions. Of course, when the chairman gives his sense of the consensus, he is assessing the consensus of voting Committee members only.

Finally, if there is a change in policy, it will be announced, at 2:15 p.m. The announcement indicates the new intended federal funds rate and also provides a brief rationale for the policy change. The Committee has delegated the wording of the announcement to the Chairman, but he will read it to the Committee and take account of members' suggestions. If there is no change in either the target federal funds rate or the policy bias, the announcement is simply, “The meeting ended at 12 noon. There is no further announcement.”

A recent change governs whether there is an announcement when there is a change in policy bias, but no change in the federal funds rate target. In this case, there may or may not be an announcement, depending on whether the Committee wants to communicate to the public a “major shift” in its views about the balance of risks or the likely direction of future policy.

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2 *Other Issues*

This covers the mechanics of the meeting. But there are also subtle issues of interest. One of them concerns setting the stage for subsequent meetings and decisions. This article has described the discussion as focused on whether to change the federal funds rate. But, sometimes, a major part of a presentation focuses on subsequent meetings and decisions. Decisions to change policy have a way of evolving from one meeting to the next. The seeds are sown at one meeting and harvested at the next. Members listen intently to the input of the other Committee members, but they are gathering input into the formation of a decision for the next meeting. And, presentations may try to emphasize the factors that may shape the decision at the next meeting. Thus the FOMC process must be thought of in a dynamic sense. One meeting helps to shape the decision of the next meeting.

Many Committee members have probably had the same experience as one has reported on several occasions. A friend may come up before a meeting and say: “I understand that an FOMC meeting is coming up in the next couple of days. What do you think the Chairman will do with rates?”

Now there are two issues here. First, members would never comment on what their vote will be or speculate on what the Committee's vote will be or indicate what the Chairman's position might be. So it is sometimes irritating to have anyone even ask this question. The second issue this raises is whether the Chairman controls the outcome to the point where no one else on the Committee matters. While this is clearly an exaggeration, it would be just as silly for a member to respond: "What do you mean? I have one vote, just like the Chairman." This is true, of course. But the reality is that the Chairman, especially a highly respected Chairman like the present one, has a disproportionate influence on the outcome. Members will voice some disagreement with the Chairman's view of the outlook or policy recommendation in the go-rounds, but many of those will vote with the Chairman in the end. That partly reflects the importance of consensus and partly reflects the respect accorded the Chairman. But there is a limit to how the Chairman's influence can be extended. And a good Chairman never oversteps this boundary. A good Chairman sometimes has to lead the FOMC by following the consensus within the Committee.

A Two-Day Meeting

Let's take a quick look in on a two-day meeting. The two-day meetings occur in February and July and precede the Federal Reserve's semi-annual report on monetary policy and the Chairman's testimony on monetary policy. To prepare for these, the Board members and Reserve Bank presidents submit their forecasts for real and nominal GDP growth, for CPI inflation, and the unemployment rate. These are presented to the Congressional committees and incorporated into the policy report and testimony before the Congress in terms of ranges and central tendencies which exclude the highest and lowest forecasts. The two-day meetings take place from about 2:30 p.m. until about 5:30 or 6 p.m. on the first day and conclude with a meeting from about 9 a.m. until about noon or so the next day. The meetings include a discussion of the target ranges for monetary aggregates, also to be included in the monetary policy report and the chairman's testimony, and may also include some other topic related to longer-run strategic policy. The Blue Book explicitly includes longer-term, specifically five-year, forecasts and alternative scenarios to help the Committee assess the policy requirements for achieving the Fed's long-run objective.

We will take a brief look at a typical February meeting. It begins differently from the other meetings. The Chairman opens the meeting by calling for nominations for Chairman of the FOMC for the coming year. The procedure is then to turn the meeting over to the next most senior Board member — or the Vice Chair of the Board if there is one — for the election process. The Federal Reserve Act does not automatically make the Chairman of the Board of Governors the Chairman of the FOMC. When the senior Board member asks for nominations, there is typically a couple of seconds of silence. But it quickly passes, and someone nominates the Chairman, who is then unanimously elected Chairman. Next, the Chairman asks for nominations for Vice Chairman. Once again, tradition triumphs over opportunity and the President of the Federal Reserve Bank of New York is unanimously elected Vice Chairman of the FOMC. The next job is to elect a Manager of the Open Market Desk and designate a Reserve Bank to carry out open-market operations. As usual, the Manager of the Open Market Desk at the Federal Reserve Bank of New York is re-elected and the Federal Reserve Bank of New York is once again designated as the Bank to carry out open-market operations. In addition, the Committee considers and generally reconfirms the various directives, rules, and procedures governing its deliberations and operations in domestic markets and foreign currencies.

Next comes the forecast and outlook go-round, as in the case of one-day meetings, though the presentations are typically more elaborate at these meetings, and the question and answer period is typically longer. At the beginning of the second day, the meeting starts with a consideration of ranges for the monetary aggregates. The Full Employment and Balanced Growth Act of 1978, in addition to setting full employment and price stability as the Fed's dual mandate, requires the Fed to set ranges for monetary and credit aggregates. Arthur Burns, the Chairman of the Board at the time, successfully discouraged the Congress from writing into the statute specific money and credit aggregates for which ranges would have to be set. The Fed currently sets ranges for the growth of two measures of the money supply (M2 and M3) and for total debt of the nonfinancial sector.

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A Lesson on Money

One way to understand the role of monetary aggregates in the monetary policy process is via the famous equation of exchange. It is an identity that states that M*V = P*Q. M is the money supply and V is the velocity of money, defined as the ratio of nominal GDP to the nominal money supply, or the number of times money "turns over" in the evolution of nominal income. If the demand for money is stable, V will not necessarily be constant, but would be related in a reasonably predictable fashion to a small number of other economic variables, most importantly, to the level of interest rates. For simplicity, let's assume that V is constant. Then there will be unique relationship between the nominal money supply and nominal income. Open-market operations then can be conducted to yield a desired path of reserves that in turn will result in an approximately equivalent growth rate for the money supply. The growth in the money supply, in turn, will insure the same rate of growth for nominal income.

The growth of nominal income, in turn, is approximately equal to the sum of the growth rates in real GDP and the inflation rate. This is your mathematics lesson for the day: the growth rate of a product (in this case, nominal income, P times Q) is approximately equal to the sum of the growth rates of the two components. On average, the growth in real GDP is independent of the rate of money growth. Let's say its long-run average rate is about two percent. Then, on average and in the long run, the rate of inflation will equal the rate of money growth less the economy's trend rate of real GDP growth. Hence, a target for money growth effectively imposes what we refer to as a nominal anchor for the economy (the rate of nominal income growth), and also pins down the long-run rate of inflation. This connection between money growth and nominal income and, in the long run, inflation, clearly identifies a potentially important role for monetary aggregate targets, particularly in the long run when any short-run variation in velocity may net out.

Unfortunately, velocity is not constant and, more importantly, is not always even a stable function of the interest rate. When the demand for money is unstable, V will be unstable, the simple relationship between money growth and nominal income will break down, and the usefulness of money growth targets in pinning down inflation in the long run evaporates.

The velocity measure corresponding to M2 (V2) did have a reasonably stable pattern through much of the postwar period and indeed did not exhibit a consistent trend. However, this stability broke down early in the 1990s. Over recent years, the velocity of M2 has shown renewed stability, but this has also been a fairly calm period for the macroeconomy and there remains some uncertainty about the fundamental stability of V2. As a result, M2 has not resumed an important role in the implementation of monetary policy. Nevertheless, the Fed is required by statute to set ranges for the growth of money and credit aggregates. The Fed has developed a practice of fulfilling this requirement that allows for a potential long-run role for the monetary aggregates, but also reflects the diminished role of the monetary aggregates in short-run monetary policy decision-making. The Fed sets the range, not to reflect the policy it intends to implement over the coming year, but to correspond to the rate of growth that would be appropriate in the long run in an environment of price stability and normal velocity behavior.

The current M2 target range is from one percent to five percent. The width of the target range also reflects the degree of uncertainty about money growth relative to nominal income, even under the best of circumstances. The midpoint is three percent. If trend real GDP growth were two percent for example — about a consensus estimate of the average growth rate expected over the long run — a three percent rate of growth of nominal income would leave long-run inflation at about one-half percent for the GDP price index, a rate of inflation just about equal to the consensus estimate of measurement bias for that index. That is, the midpoint of the target range is about equal to true price stability. The range for M3 is higher because, on average, M3 has grown faster than M2. Even if V2 continued its recent stability, money growth would probably not be the primary focus of short-run monetary policy decisions. Even before the recent episode of instability of M2, the Fed, most of the time, implemented monetary policy by setting a federal funds rate target, even when it said it was adjusting the tightness of reserve positions! This preference for interest-rate targets reflected some ongoing concern about whether velocity was ever stable enough to be a guide for the conduct of short-run policy decisions and also a desire on the part of the Fed to smooth interest rates. Under a money supply target, where open-market operations are directed to a path of reserves consistent with a money growth target, interest rates might be quite volatile on a day-to-day basis. Nevertheless, in the 1970s and early 1980s, monetary aggregates had a much more important role in the setting of monetary policy than they do today. The FOMC, during this period, often moved the federal funds rate directly in response to deviations of money growth from the midpoints of their target ranges.

You may now know more than you ever wanted to know about the FOMC. Some students feel that way about macroeconomics at the end of one of their classes! But you now know more than many decision-makers in this country. And that can be of great help as you make decisions.

Bibliography for Teachers — *A Summary of Recent Articles from the Federal Reserve System*

You Can't Always Get What You Want:
A Special Issue on Economic Literacy
Various Authors
The Region
Federal Reserve Bank of Minneapolis
December, 1998

The Federal Reserve Bank of Minneapolis, long an innovator in economic education in the Federal Reserve System, has come up with a great publication. This very comprehensive issue of *The Region* has a number of articles that will interest any economics teacher, or anyone interested in the economic literacy of U.S. students. Under titles such as "Why Johnny Can't Choose" and "From Morality to Moscow", the Minneapolis Fed examines the current state of economic understanding and teaching and poses some interesting questions. *Free.*

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woodrow.mpls.frb.fed.us/pubs/region

Monetary Policy and the Great Crash of 1929:
A Bursting Bubble or Collapsing Fundamentals
Timothy Cogley
FRBSF Economic Letter
Federal Reserve Bank of San Francisco
March 26, 1999

"In recent years, a number of economists have expressed concern that the stock market is overvalued. Some have compared the situation with the 1920s, warning that the market may be headed for a similar collapse. Indeed, some suggest that lax monetary policy contributed to the Great Crash and have argued that current monetary policy is also dangerously lax." So begins Cogley's article. In it, he argues that many who take this position have misinterpreted the lessons of the 1929 Crash, and that the market collapse was due to collapsing economic fundamentals, augmented by the Fed's holding to a tight monetary policy too long. This article is definitely worth the time of any teacher of economics and/or American History. *Free.*

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www.frbsf.org/econrsrch/wklyltr/indx.wl.html

Will Increasing the Minimum Wage Help the Poor?
David Neumark, Mark Schweitzer, and William Wascher
Economic Commentary
Federal Reserve Bank of Cleveland
February 1, 1999

Early in this article, the authors state, "It is natural to assume that raising the minimum wage will help poor families with working members. Economists' estimates of the unemployment effects of minimum wages are usually characterized as small, suggesting that the main effect of minimum wage is to raise the earnings of low-wage workers in low income families. However, the link between the relatively small unemployment effects of minimum wages commonly estimated by economists and the effects of minimum wages on low-wage workers is not as straightforward as it may seem." With that, the authors delve into a topic that is the subject of recurring debate in the U.S. Their findings add some new dimensions to a debate that many educators will have thought exhausted. *Free.*

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Materials for the Classroom

Public Debt, Private Asset
This is an updated version of a popular Chicago Fed publication. This version has new data, improved graphics, as well as sections on Treasury auctions and the Federal government's surplus. A larger listing of additional readings is also included. Available in quantity, free. Orders should be sent to: Public Information Department, Federal Reserve Bank of Chicago, P.O. Box 834, Chicago, IL 60690-0834 or from the Chicago Fed Website at www.frbchi.org

Equilibria
Although we've highlighted this resource before, the most recent issue makes it worth mentioning again. *Equilibria* is the newsletter for educators published by the Federal Reserve Bank of Richmond. With its four-color magazine layout, it is definitely the most impressive looking newsletter in the Federal Reserve System. It's content and layout also put it at or near the top (present publication providing a notable competitor). This issue discusses some very interesting topics including the economics of language, some excellent book reviews, and for you science-fiction fans, "The Bank at the End of the Universe." Subscription is free. Orders should be sent to: Public Affairs Department, Federal Reserve Bank of Richmond, P.O. Box 27622, Richmond, VA 27622 or via e-mail at equilibria@rich.frb.org

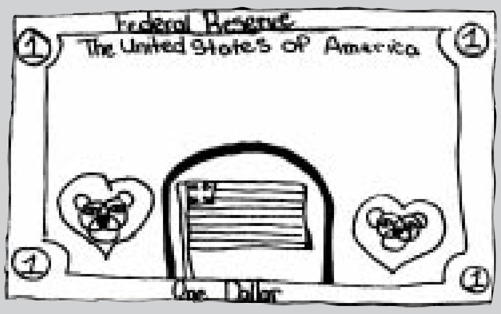
Entrepreneur and the Economy
This is the latest addition to the Federal Reserve Bank of Dallas' Everyday Economics series. The publication focuses on the role of the entrepreneur in today's economy in a lively and interesting way. The graphics are vivid and exciting. This publication can be easily used in junior high through college levels. Available in quantity, free. Orders should be sent to: Public Information Department, Federal Reserve Bank of Dallas, 2200 Pearl, Dallas, TX 75201-2272 or from the Dallas Fed Website at www.dallasfed.org

Fundamental Facts about U.S. Money
This is a very popular publication by the Federal Reserve Bank of Atlanta. Updated in 1999, this new version includes information on the newly designed currency and provides interesting background on how currency and coin are produced, as well some interesting figures on denominations in circulation. Available in quantity, free. Orders should be sent to: Public Affairs Department, Federal Reserve Bank of Atlanta, 104 Marietta, NW, Atlanta, GA 30303-2713 or from the Atlanta Fed Website at www.frbatlanta.org

Design-a-Dollar

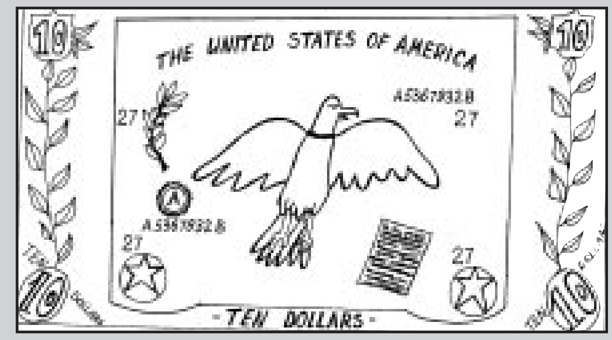
Below are the winning drawings from our recent Design-a-Dollar activity. We received many drawings from schools across the Seventh Federal Reserve District. All the drawings were very good and the judging was the most difficult part of the activity. The students whose drawings appear below each received a $50 savings bond. Because of the high quality of the submissions, all students received a certificate of recognition and a souvenir of shredded currency from the Federal Reserve Bank of Chicago. Congratulations to all the participants.

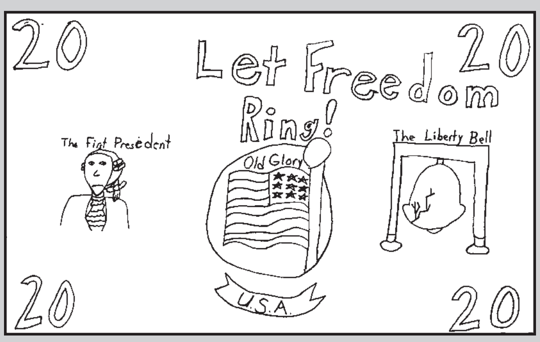
Our winners were:



Sedall Asante, *Mrs.Sugrue/Ms.Willis, Goudy School, Chicago, IL*

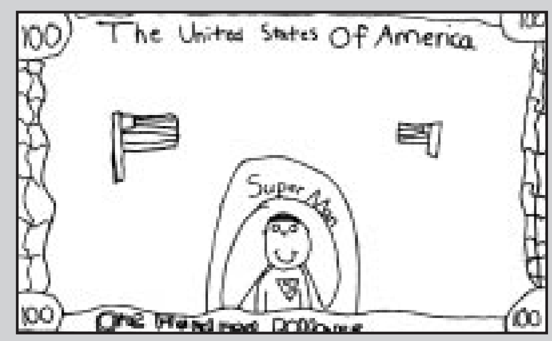
Kristina Buzin, *Ms.Weiner, McCutcheon Elementary School, Chicago, IL*

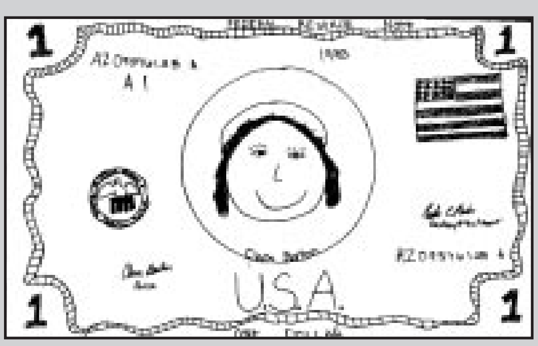




Kathyrn Cesarz, *Mrs. Van Hecke, St. Mary Parish Elementary School, Hales Corners, WI*

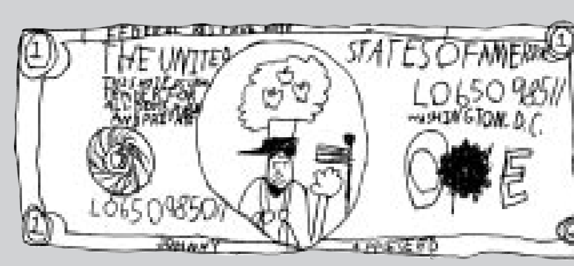
Michael Giannoni, *Ms. Shaver, Matteson Elementary School, Matteson, IL*

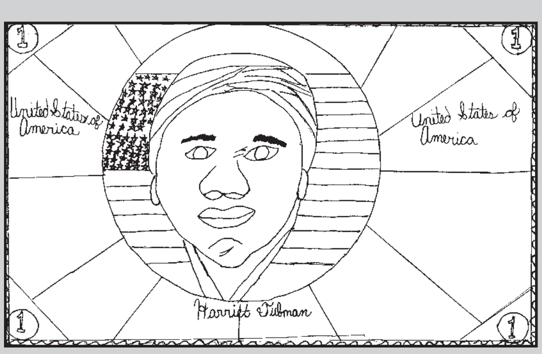




Dawn Lemke, *Mrs. Van Horn Canterbury Elementary School, Crystal Lake, IL*

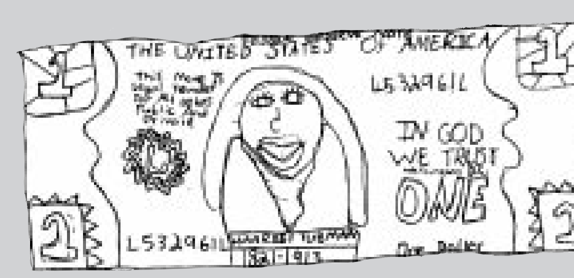
Emily Lerner, *Ms. Hansen, Arcadia Elementary School, Olympia Fields, IL*

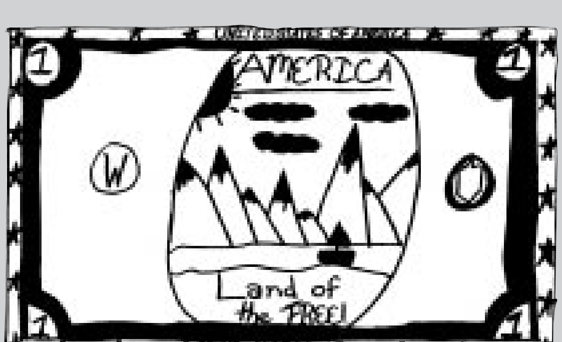




Cayla McKibbage, *Ms. Nemeth, Belle Reynolds Elementary School, Oakfield,WI*

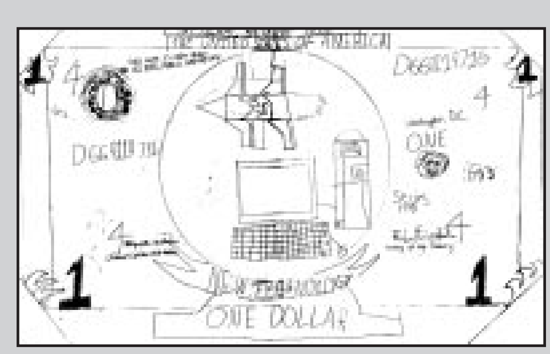
Kelechi Nwabara, *Mrs. Hansen, Arcadia Elementary School, Olympia Fields, IL*





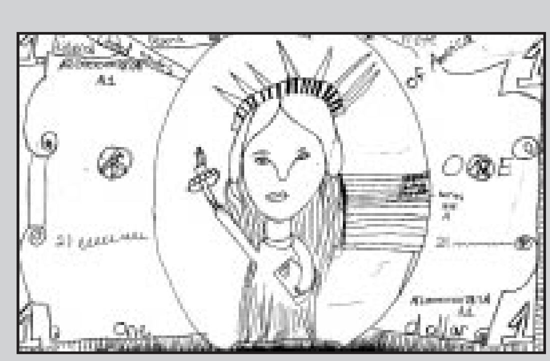
Steffani Reed, *Ms. Jindra***,** *Saint Pius X Elementary School, Wauwatosa, WI*

Michael Simon, *Ms. Santo/Mr. Henrich***,** *Wheatland Elementary School, Naperville, IL*



Kimberly Simon, *Mrs. Van Horn Canterbury Elementary School, Crystal Lake, IL*

Jessica Walsh, *Mrs. Van Horn Canterbury Elementary School, Crystal Lake, IL*



Teacher Workshops in the Seventh District

ILLINOIS

The Center for Economic Education at Governors State University and the Federal Reserve Bank of Chicago
"Economics is Elementary," Chicago, July 7 – 9; "Money, Banking and the Federal Reserve," Chicago, July 12 - 14;
"Earning, Spending and Saving: Economics and the Consumer," Chicago, July 20 – 22, 1999. Graduate credit available. 708-534-4925.

The Center for Economic Education at Governors State University
"Role of Labor in a Changing Economy," University Park, July 12 -23, 1999. Graduate credit available. 708-534-4925.

The Center for Economic Education at Northern Illinois University
"Homegrown Economics," Crystal Lake, June 14 - 15; "Economic Education," DeKalb, June 14 – August 2, 1999. Graduate credit available. 815-753-6970.

INDIANA

The Center for Economic Education at Purdue University
"International Economics," West Lafayette, June 9 - 18, 1999. Graduate credit available. 765-494-7336.

The Center for Economic Education at Indiana State University
"Personal Finance Economics, K-12," Terre Haute, June 14 - 24, 1999. Graduate credit available. 812-237-2163.

The Center for Economic Education at Indiana/Purdue University at Fort Wayne
"Topics in Economic Education - The Economics of Energy," Fort Wayne, June 14 - 25; "Topics in Economic Education - General Economic Content," Fort Wayne, June 28 - July 26, 1999. Graduate credit available. 219-481-6463.

The Center for Economic Education at Ball State University
"Energy, Economics & the Environment," Muncie, June 14 - 25, 1999. Graduate credit available. 765-285-8020.

The Center for Economic Education at Indiana University - Kokomo
"Economic Education for K-12," Kokomo, June 16 - 25, 1999. Graduate credit available. 765-455-9462.

The Center for Economic Education at Indiana/Purdue University at Indianapolis
"Money Talks: Getting the Most from Your Scarce Resources for Grades K-12," Indianapolis, June 21-30; "The U.S. in a Global Economy for Grades 3-12," Indianapolis, July 7 - 16; "Tax ene for Grades 9 -12," July 21 - 30, 1999. Graduate credit available. 317-274-8100.

The Center for Economic Education at University of Southern Indiana
"Money Matters - Personal Finance for K-12 Teachers," Evansville, July 5 - 16, 1999. Graduate credit available. 812-465-1610.

The Wilson Education Center
"Personal Finance for Grades 4-12," Charlestown, June 23 - 25, 1999. 812-256-8000.

The Center for Economic Education at Indiana University - Northwest
"Topics in Economic Education for Grades K-12," Gary, July 6 - 19, 1999. Graduate credit available. 219-980-6640.

The Center for Economic Education at Indiana/Purdue University at Columbus
"Money Matters: Teaching Basic Economics in the K-12 Classroom," Columbus, July 12 - 21, 1999. Graduate credit available. 812-348-7305.

The Center for Economic Education at Indiana University - East
"Personal Finance, K-12," Richmond, June 14 - 25, 1999. Graduate credit available. 765-973-8347.

IOWA

The Center for Economic Education at the University of Northern Iowa
"Local Labor Markets," Cedar Falls, June; "Developments in Teaching High School Economics," Cedar Falls, June;
"Developments in Teaching Middle School Economics," Cedar Falls, June, 1999. Graduate credit available. 319-273-2412.

MICHIGAN

The National Institute for Consumer Education
"Integrating Consumer and Economic Education into the Elementary School," Ypsilanti, date TBD; "Consumer and Economic Education for Secondary Teachers," Ypsilanti, date TBD. Graduate credit available. 734-487-2292.

The Federal Reserve Bank of Chicago - Detroit Branch and EconomicsAmerica of Michigan
"Economics is Elementary," Detroit, July 28 - 30; "Money, Banking and the Federal Reserve," Detroit, August 2 - 4, 1999. 248-888-1075.

WISCONSIN

The Center for Economic Education at the University of Wisconsin - Whitewater
"Economic Concepts for Teachers," Whitewater, June 15 - 23; "Distance Learning and Wisconsiní̇s Economic Standards," Whitewater, July 5; "World Economics," Whitewater, July 12, 1999. Graduate credit available. 414-472-4704.

The Center for Economic Education at the University of Wisconsin - Superior
"Wisconsin Teaching Standards," Superior, May 10; "Teaching Economics in Civics and Government," Superior, June 14 - 15; "Teaching Economics in History," June 16 - 17; "Wisconsin Teaching Standards," Superior, June 21 - 22, 1999. Graduate credit available on multi-day workshops. 715-394-8467.

The Center for Economic Education at the University of Wisconsin - Milwaukee
"Teaching High School Economics, II," Milwaukee, May 11, 1999. Graduate or undergraduate credit available. 414-229-4842.

The Federal Reserve Bank of Chicago and the Center for Economic Education at the University of Wisconsin - Milwaukee
"Money, Banking and the Federal Reserve," Milwaukee, August 10 - 12, 1999. 312-322-5109.

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Thanks to Bob Moore at the Board of Governors and Audra Sawicki of the Corporate Communications department of the Federal Reserve Bank of Chicago for suggestions and edits of the main article. Any errors or omissions are strictly the responsibility of the author.

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