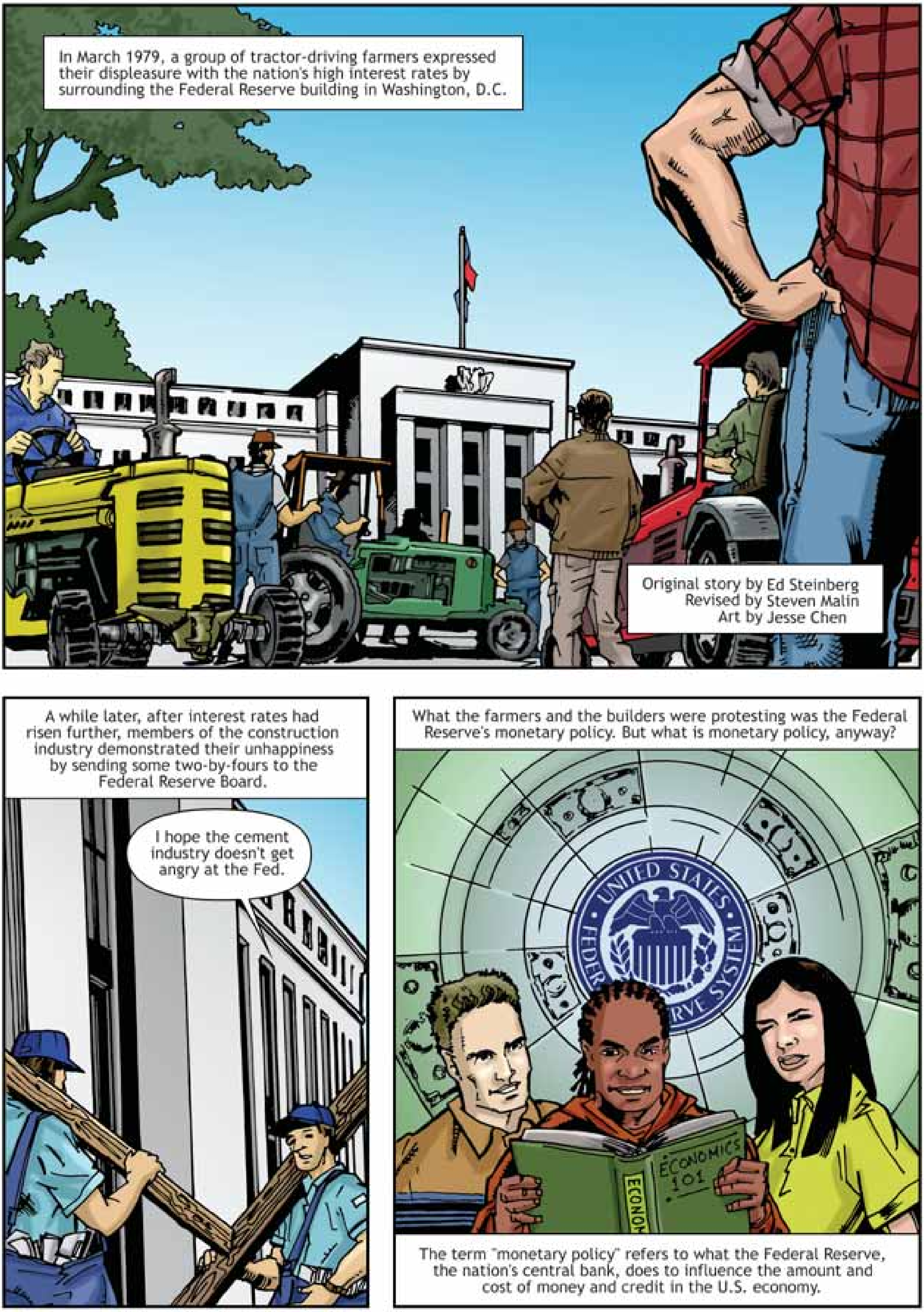
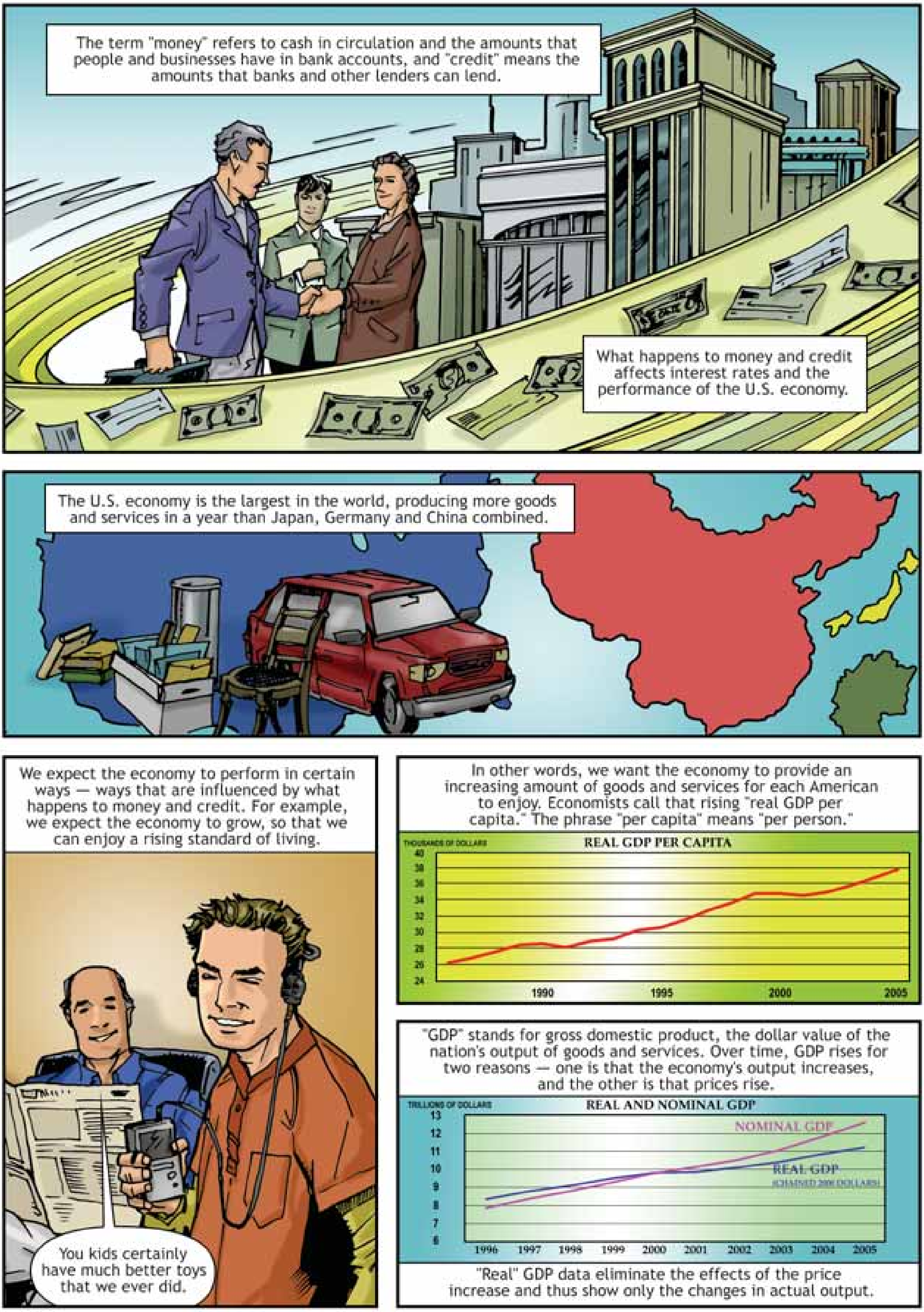
THE STORY OF MONETARY POLICY

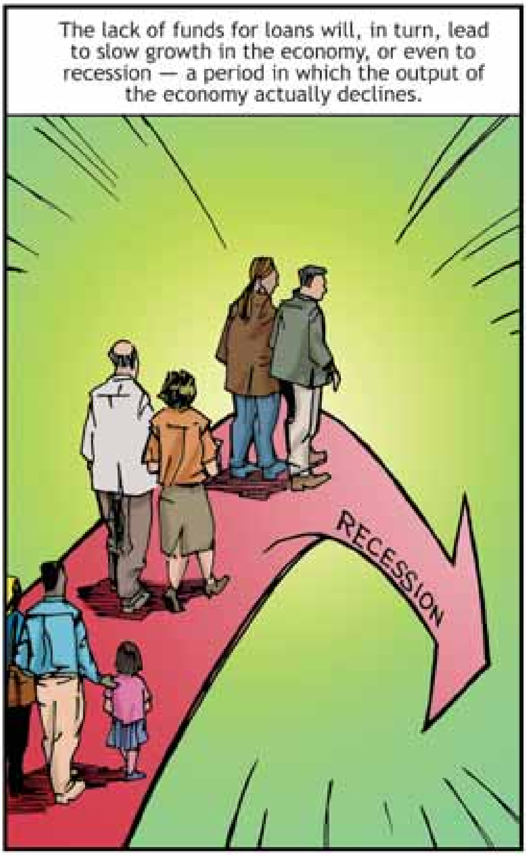
FEDERAL RESERVE BANK OF NEW YORK


In March 1979, a group of tractor-driving farmers expressed their displeasure with the nation's high interest rates by surrounding the Federal Reserve building in Washington, D.C.
Original story by Ed Steinberg
Revised by Steven Malin
Art by Jesse Chen
A while later, after interest rates had risen further, members of the construction industry demonstrated their unhappiness by sending some two-by-fours to the Federal Reserve Board.
I hope the cement industry doesn't get angry at the Fed.
What the farmers and the builders were protesting was the Federal Reserve's monetary policy. But what is monetary policy, anyway?
UNITED STATES
ECONOMICS 101
The term "monetary policy" refers to what the Federal Reserve, the nation's central bank, does to influence the amount and cost of money and credit in the U.S. economy.


The term "money" refers to cash in circulation and the amounts that people and businesses have in bank accounts, and "credit" means the amounts that banks and other lenders can lend.
What happens to money and credit affects interest rates and the performance of the U.S. economy.
The U.S. economy is the largest in the world, producing more goods and services in a year than Japan, Germany and China combined.
We expect the economy to perform in certain ways — ways that are influenced by what happens to money and credit. For example, we expect the economy to grow, so that we can enjoy a rising standard of living.
You kids certainly have much better toys that we ever did.
In other words, we want the economy to provide an increasing amount of goods and services for each American to enjoy. Economists call that rising "real GDP per capita." The phrase "per capita" means "per person."
THOUSANDS OF DOLLARS
REAL GDP PER CAPITA
40
38
36
34
32
30
28
26
24
1990
1995
2000
2005
"GDP" stands for gross domestic product, the dollar value of the nation's output of goods and services. Over time, GDP rises for two reasons — one is that the economy's output increases, and the other is that prices rise.
TRILLIONS OF DOLLARS
REAL AND NOMINAL GDP
NOMINAL GDP
REAL GDP
(CHAINED 2000 DOLLARS)
13
12
11
10
9
8
7
6
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
"Real" GDP data eliminate the effects of the price increase and thus show only the changes in actual output.


We want the economy to grow, not only to give us a rising standard of living, but also to provide jobs for people who enter the labor force each year.
I guess now we have to go look for jobs.
Growth is one of our economic goals. Another is price stability. We want to avoid an inflationary economy — where you have a sustained and rapid increase in the price level.
2004 BEST OUTFITS
SALE 9.95
2005 BEST OUTFITS
SALE 24.95
2006 Best Outfit
Sale 36.99
Inflation is undesirable for several reasons. One is that inflation is unfair and makes some people worse off because their incomes don't rise as rapidly as prices.
It seems every year a larger share of my pension goes for rent and food, and I have less and less left over for other things.
I got a 3% raise, but with prices up 5%, I'm worse off than I was before.
Inflation also hurts people who lend money at interest rates that are lower than the rate of inflation.
I could have bought more with what I lent you last year than I can with what you're paying me back now.
Another way in which inflation hurts is by making it harder for businesses to plan.
With the prices of steel and other materials up so much, these bikes may cost more to make than I can sell them for.
The uncertainties that inflation creates can discourage investment, thus slowing economic growth.

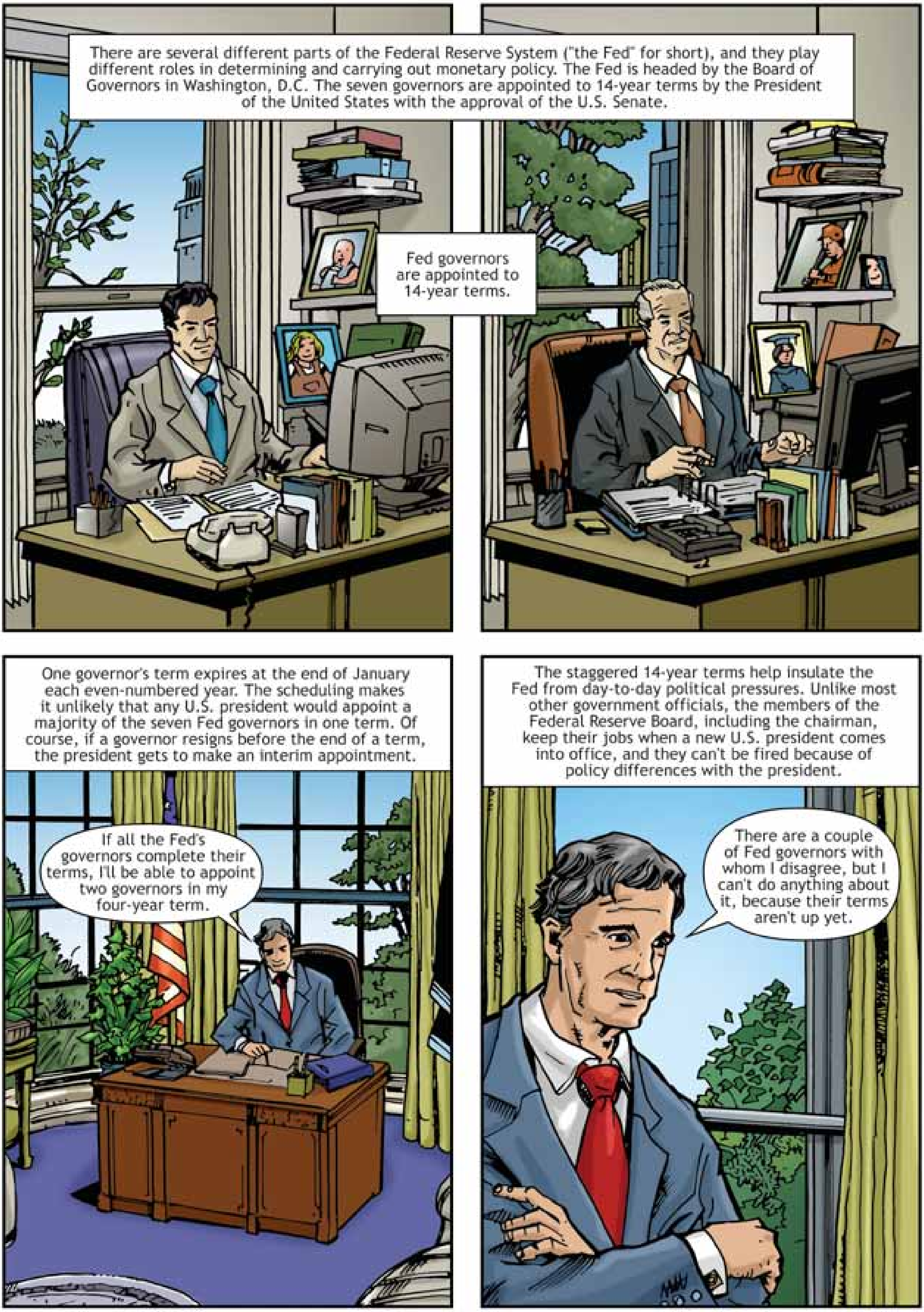

Inflation sometimes feeds on itself; one set of price increases leads to another.
I have to raise prices to cover my costs, but when workers see prices going up, they'll ask for raises, leading to a vicious cycle.
If unchecked, inflation can lead to hyperinflation, in which prices rise extremely rapidly.
APPLES 1.99/Lb NOW 3.99/Lb
Hyperinflation has occurred a number of times — for example in Hungary after World War II, Argentina in the 1980's and Brazil in the 1990s. Some episodes of hyperinflation have led to great social unrest.
BRING PRICES DOWN
CITIZENS against HYPER-
Money and credit must grow at a pace that allows economic activity to expand at a sustainable rate without excessive price increases.
MONEY
CREDIT
If money and credit grow too slowly, people and businesses will not be able to get the loans they need for new homes and equipment.
I'd really like to expand my business, but I can't afford to pay the higher interest rates you're charging during this period of slow money growth.
BUSINESS LOANS
2-YEAR...10%
5-YEAR...15%
20%

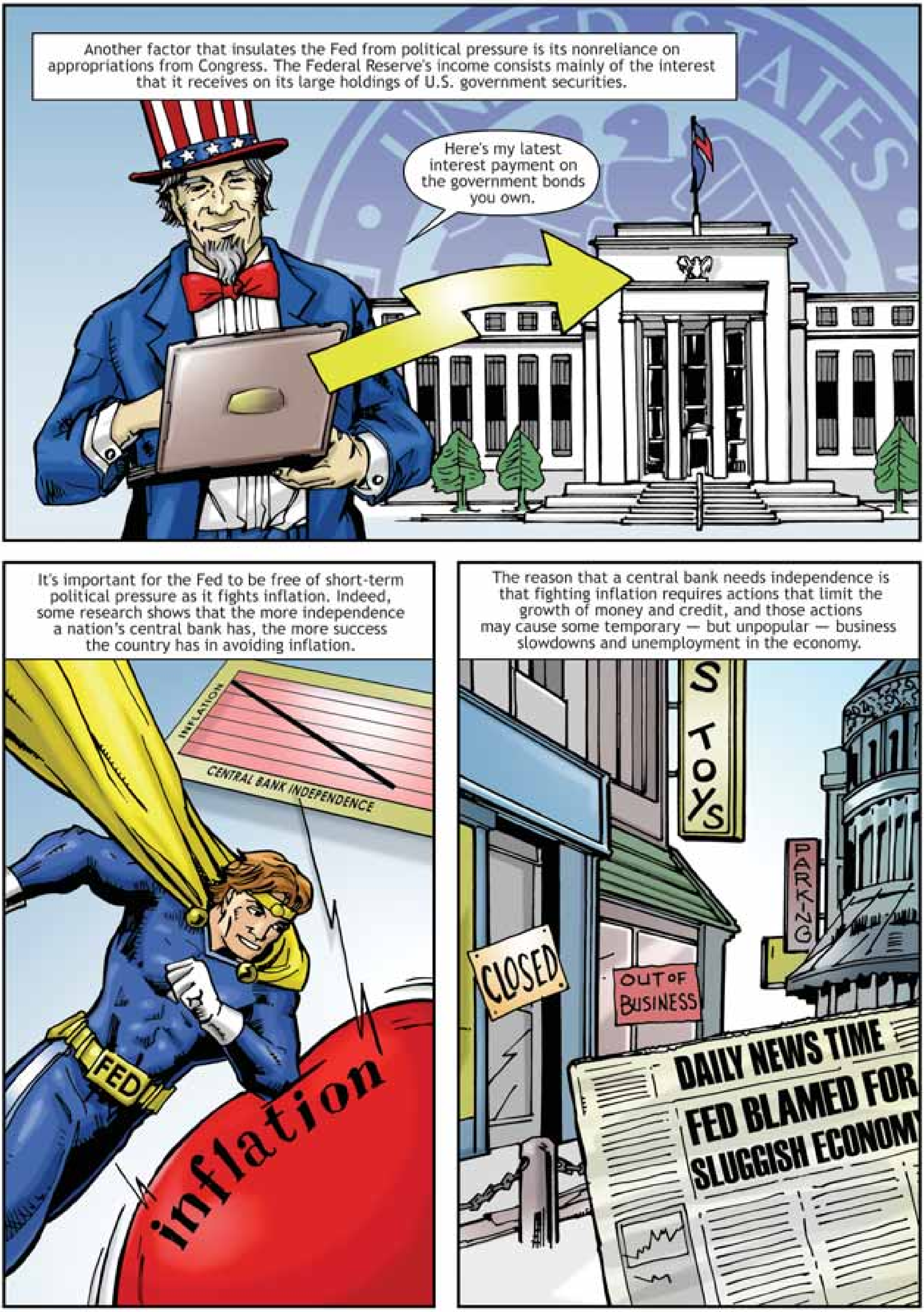

The lack of funds for loans will, in turn, lead to slow growth in the economy, or even to recession — a period in which the output of the economy actually declines.
RECESSION


The rise in unemployment that occurs during a recession brings hardship to many people.
These days, the Fed's free comic books are the only reading material I can afford.
DEPARTMENT OF LABOR


If money and credit increase too rapidly, the result will be inflation.
Boss, the customers are all coming to the store with a lot of money. Should I raise the price of the basketball?
Sure, the balls are inflatable.
STUDENT GRADE
PRO QUALITY


The responsibility for making sure that the nation's money supply grows at the appropriate rate lies with the nation's central bank, the Federal Reserve.
FEDERAL RESERVE


There are several different parts of the Federal Reserve System ("the Fed" for short), and they play different roles in determining and carrying out monetary policy. The Fed is headed by the Board of Governors in Washington, D.C. The seven governors are appointed to 14-year terms by the President of the United States with the approval of the U.S. Senate.
Fed governors are appointed to 14-year terms.
One governor's term expires at the end of January each even-numbered year. The scheduling makes it unlikely that any U.S. president would appoint a majority of the seven Fed governors in one term. Of course, if a governor resigns before the end of a term, the president gets to make an interim appointment.
If all the Fed's governors complete their terms, I'll be able to appoint two governors in my four-year term.
The staggered 14-year terms help insulate the Fed from day-to-day political pressures. Unlike most other government officials, the members of the Federal Reserve Board, including the chairman, keep their jobs when a new U.S. president comes into office, and they can't be fired because of policy differences with the president.
There are a couple of Fed governors with whom I disagree, but I can't do anything about it, because their terms aren't up yet.


Another factor that insulates the Fed from political pressure is its nonreliance on appropriations from Congress. The Federal Reserve's income consists mainly of the interest that it receives on its large holdings of U.S. government securities.
Here's my latest interest payment on the government bonds you own.
It's important for the Fed to be free of short-term political pressure as it fights inflation. Indeed, some research shows that the more independence a nation's central bank has, the more success the country has in avoiding inflation.
INFLATION
CENTRAL BANK INDEPENDENCE
FED
inflation
The reason that a central bank needs independence is that fighting inflation requires actions that limit the growth of money and credit, and those actions may cause some temporary — but unpopular — business slowdowns and unemployment in the economy.
TOYS
PARKING
CLOSED
OUT OF BUSINESS
DAILY NEWS TIME
FED BLAMED FOR
SLUGGISH ECONOM

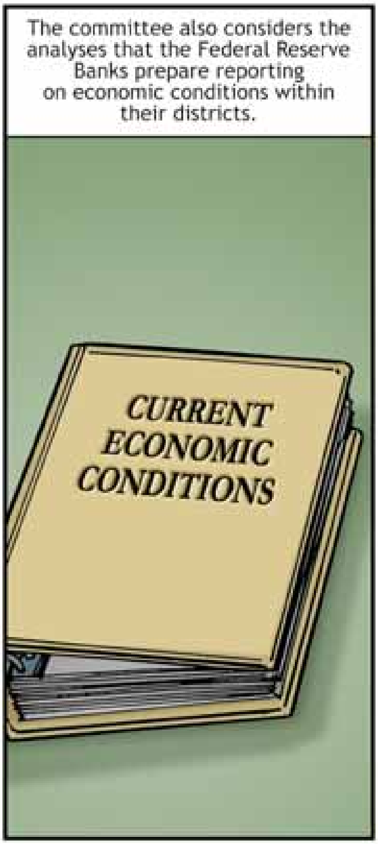
While the Fed's decision making is independent, the head of the Federal Reserve is required by law to present testimony explaining the Fed's monetary policy plans to Congress twice a year. Congress invites the chairman to testify at other times, too.

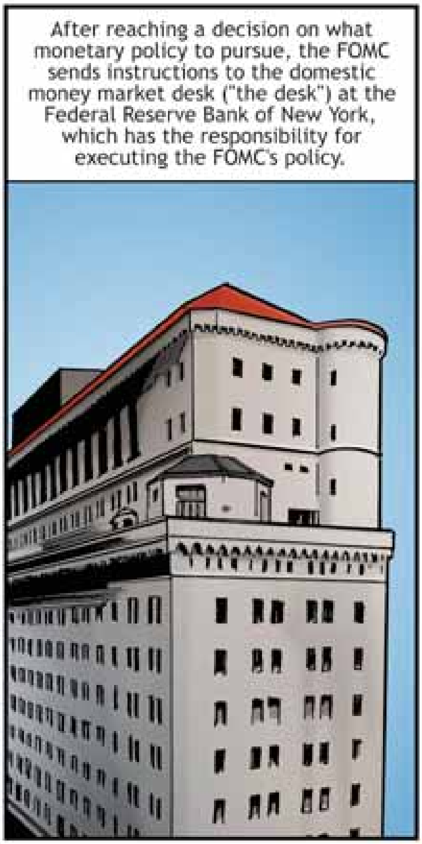
In addition to the Board of Governors, the Federal Reserve System also consists of Federal Reserve Banks around the country.

The seven members of the Board of Governors and the presidents of five Reserve Banks are the voting members of the Federal Open Market Committee (FOMC). The FOMC meets in Washington, D.C., eight times a year, to determine the course of monetary policy.

The president of the Federal Reserve Bank of New York is always a voting member and serves as vice chairman of the committee, while the presidents of the other Reserve Banks serve one-year terms on a rotating basis.

Before reaching its decision, the FOMC studies a wide variety of economic and financial data. The committee has to consider, for example, how rapidly the economy is growing and whether inflation appears to be a problem.

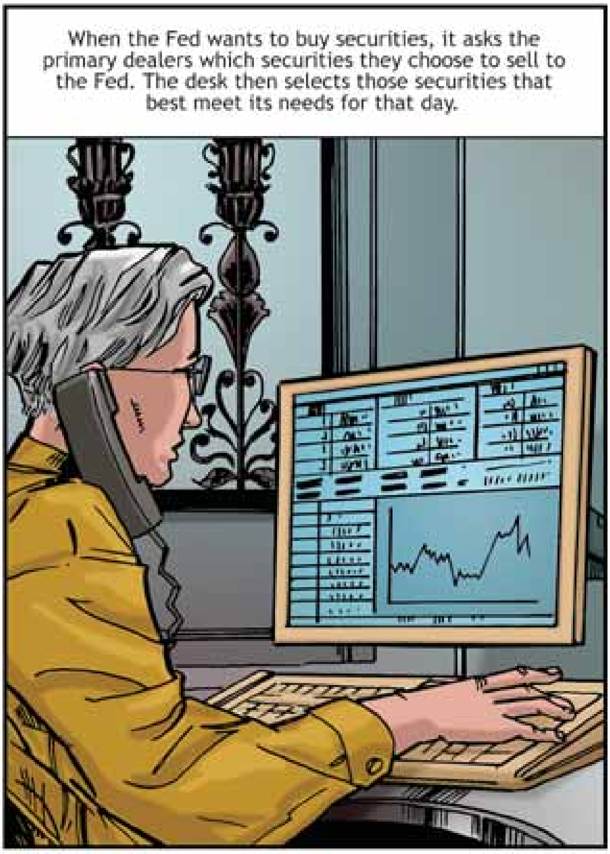

The committee also considers the analyses that the Federal Reserve Banks prepare reporting on economic conditions within their districts.
CURRENT ECONOMIC CONDITIONS


After reaching a decision on what monetary policy to pursue, the FOMC sends instructions to the domestic money market desk ("the desk") at the Federal Reserve Bank of New York, which has the responsibility for executing the FOMC's policy.

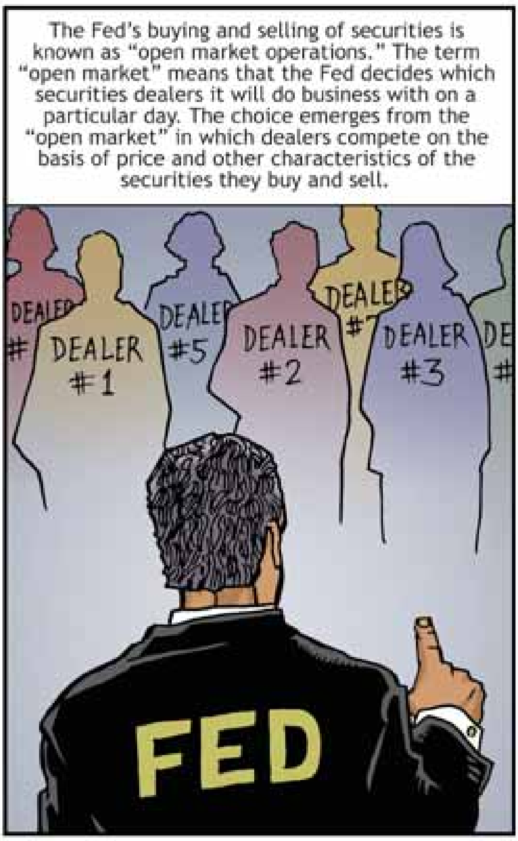

The FOMC's instructions include a target for the federal funds rate, the interest rate banks charge one another on short-term loans of excess reserves.
TARGET


The desk works to keep the federal funds rate at, or near, the FOMC's target by buying and selling U.S. government securities, which are IOU's of the federal government, and certain other types of securities. The desk conducts these transactions electronically.


The desk's transactions take place with a number of securities firms that are designated as primary dealers. These are securities dealers authorized by the Fed to engage in transactions with the desk. How does the Fed decide which primary dealers to buy securities from or sell to on a particular day?
PRIMARY
PRIMARY
PRIMARY


When the Fed wants to buy securities, it asks the primary dealers which securities they choose to sell to the Fed. The desk then selects those securities that best meet its needs for that day.


The Fed wants to know which of our government securities we'd be willing to sell.


The Fed's buying and selling of securities is known as "open market operations." The term "open market" means that the Fed decides which securities dealers it will do business with on a particular day. The choice emerges from the "open market" in which dealers compete on the basis of price and other characteristics of the securities they buy and sell.
DEALER #1
DEALER #5
DEALER #2
DEALER #3
FED

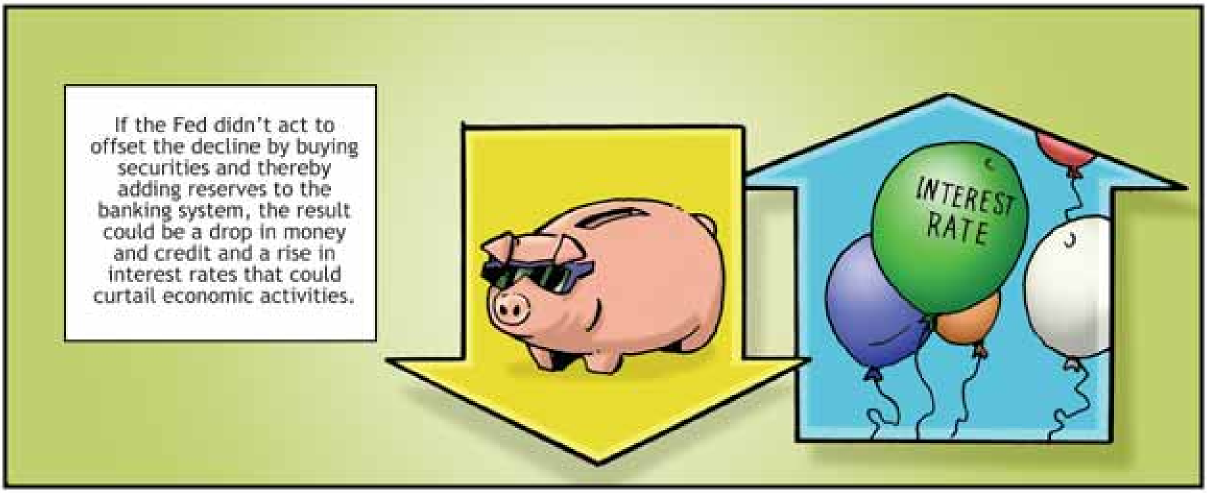

If our competitors offer more attractive securities to the Fed, we won't get the deal.

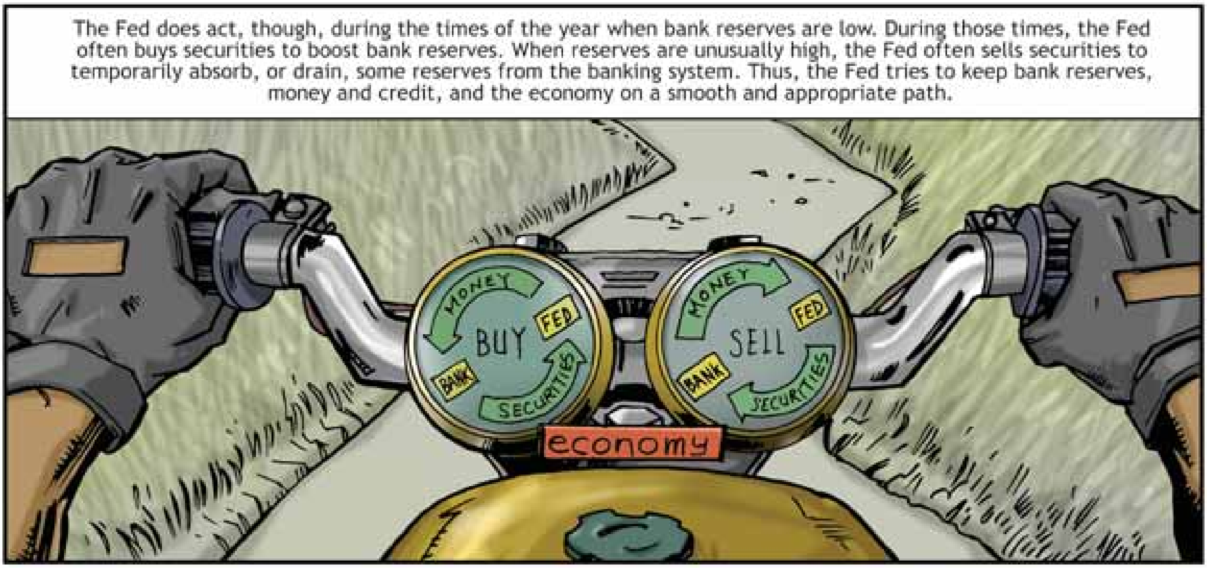

Open market operations are intended mainly to offset fluctuations in bank reserves that result from seasonal or other technical factors.
OPEN MARKET OPERATIONS
BANK RESERVES


If the Fed didn't counteract these influences, short lived, but undesirable, changes in short-term interest rates might result. One such influence might be a change in the amount of cash people want to hold.
I'd like to cash this check. Please give me six $100 bills.


The amount of cash that the public holds is not constant. It increases, for example, during busy shopping seasons.
50%
HAPPY
OFF


When people withdraw cash from banks — to go shopping, for example — banks' reserves and the amounts they can lend decline.
BANK
RESERVE


If the Fed didn't act to offset the decline by buying securities and thereby adding reserves to the banking system, the result could be a drop in money and credit and a rise in interest rates that could curtail economic activities.
INTEREST RATE

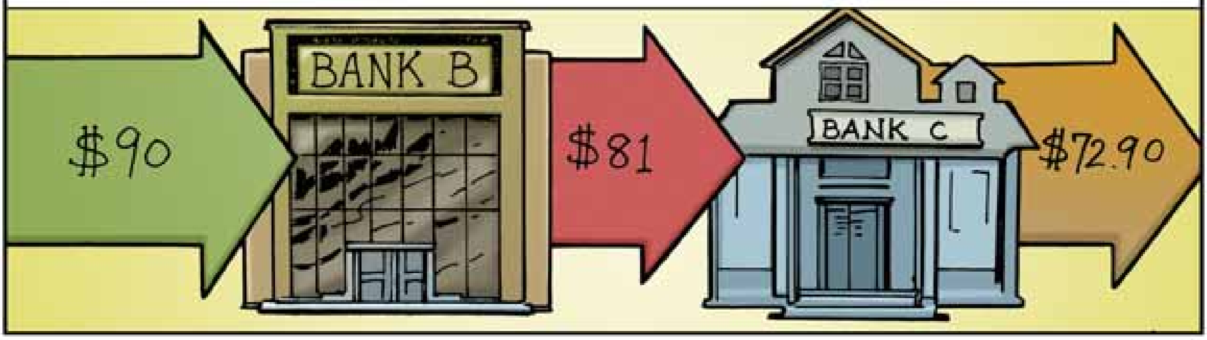

The Fed does act, though, during the times of the year when bank reserves are low. During those times, the Fed often buys securities to boost bank reserves. When reserves are unusually high, the Fed often sells securities to temporarily absorb, or drain, some reserves from the banking system. Thus, the Fed tries to keep bank reserves, money and credit, and the economy on a smooth and appropriate path.
MONEY
FED
BUY
BANK
SECURITIES
MONEY
FED
SELL
BANK
SECURITIES
economy


The Fed was especially busy buying securities in late 1999, when people took a lot of cash out of banks because of worries about possible bank computer problems in January 2000.

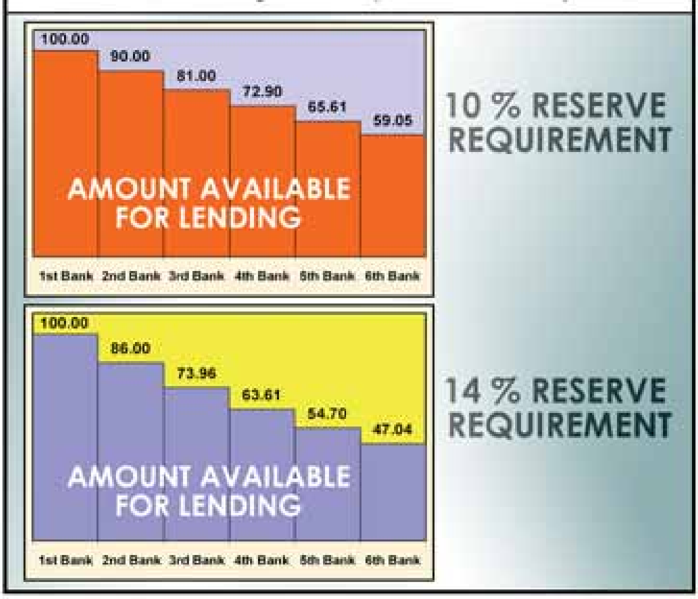

In addition to open market operations, the Fed has two other major monetary policy tools: reserve requirements and the discount rate.
DISCOUNT RATE
RESERVE REQUIREMENTS

Reserve requirements are the portion of deposits that banks have to keep either on hand or on deposit at a Federal Reserve Bank. For example, if the reserve requirement is 10%, a bank that receives a $100 deposit may lend $90 of that $100, but it may not lend the other $10.

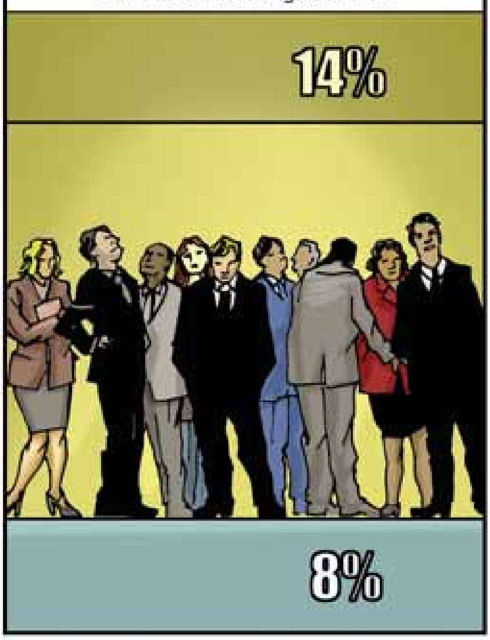
Whoever borrows the $90 is likely to pay someone who will deposit the $90 in another bank. That bank, in turn, can lend 90% of $90, or $81. Then the bank that gets the $81 deposit can lend 90% of $81, or $72.90.

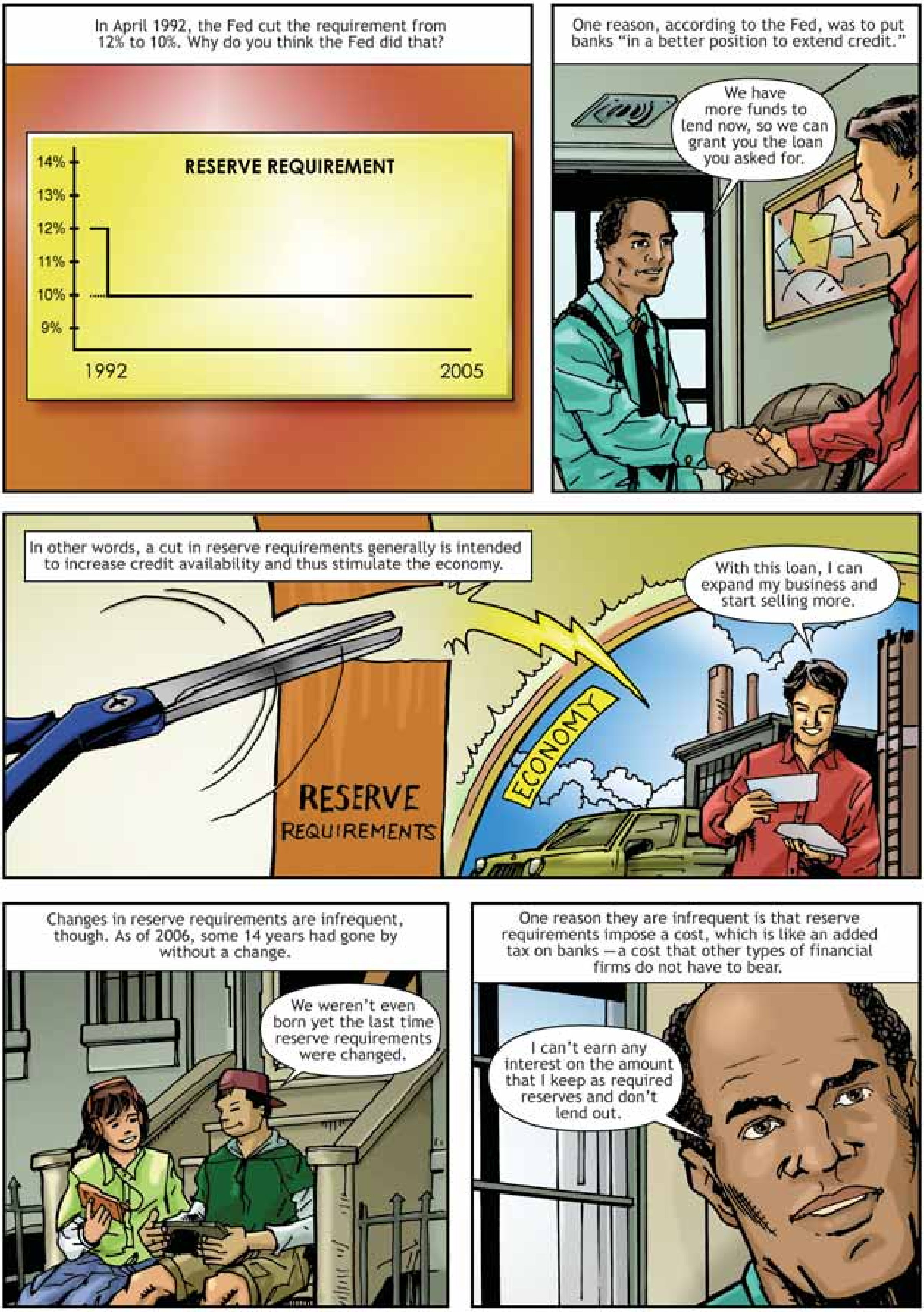


Through this process, the banking system creates money; the level of reserve requirements influences how much money banks can create. The higher the reserve requirements, the greater the restraint on bank lending. If, for example, the reserve requirement were 14%, the banks receiving the $100 deposit could lend only $86, and the bank receiving the $86 deposit could lend only $73.96.



The Monetary Control Act of 1980 authorizes the Fed's Board of Governors to set reserve requirements no lower than 8% and no higher than 14% on checking accounts.

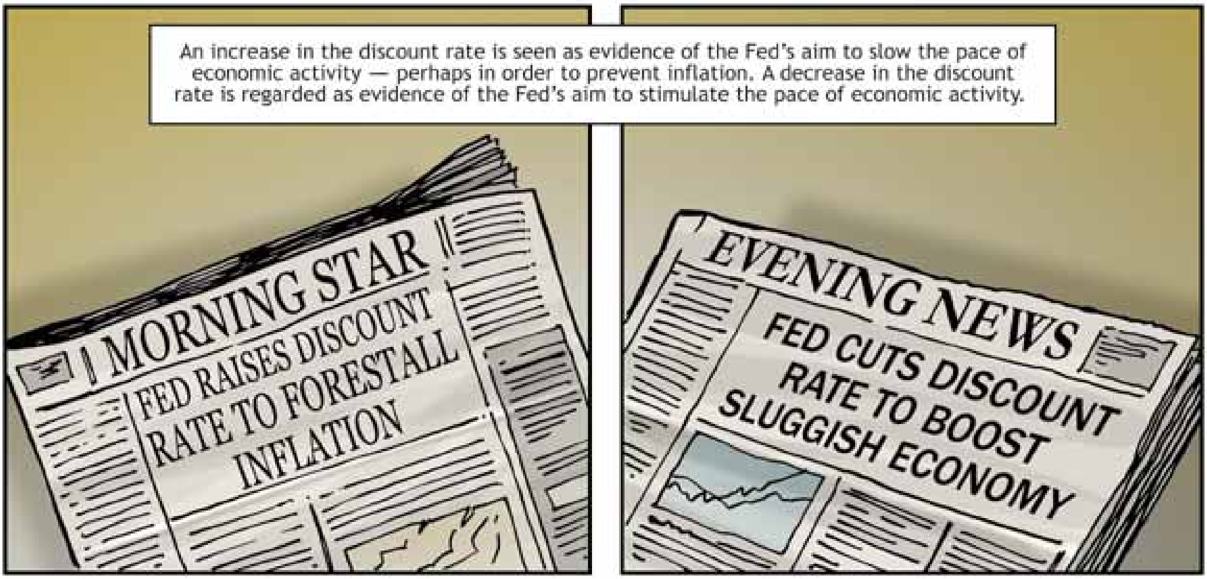


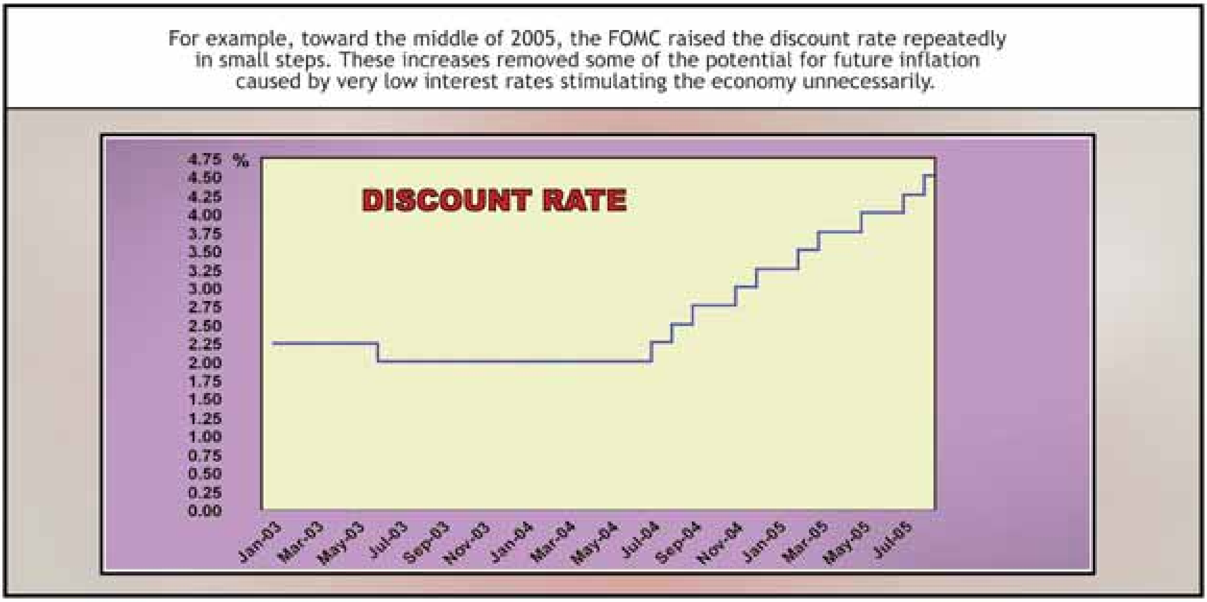

In April 1992, the Fed cut the requirement from 12% to 10%. Why do you think the Fed did that?
RESERVE REQUIREMENT
14%
13%
12%
11%
10%
9%
1992
2005
One reason, according to the Fed, was to put banks "in a better position to extend credit."
We have more funds to lend now, so we can grant you the loan you asked for.
In other words, a cut in reserve requirements generally is intended to increase credit availability and thus stimulate the economy.
With this loan, I can expand my business and start selling more.
RESERVE REQUIREMENTS
ECONOMY
Changes in reserve requirements are infrequent, though. As of 2006, some 14 years had gone by without a change.
We weren't even born yet the last time reserve requirements were changed.
One reason they are infrequent is that reserve requirements impose a cost, which is like an added tax on banks —a cost that other types of financial firms do not have to bear.
I can't earn any interest on the amount that I keep as required reserves and don't lend out.

Also, reserve requirements are an unwieldy tool to use on a day-to-day basis, because it would be complex and costly for banks to comply with frequent changes.

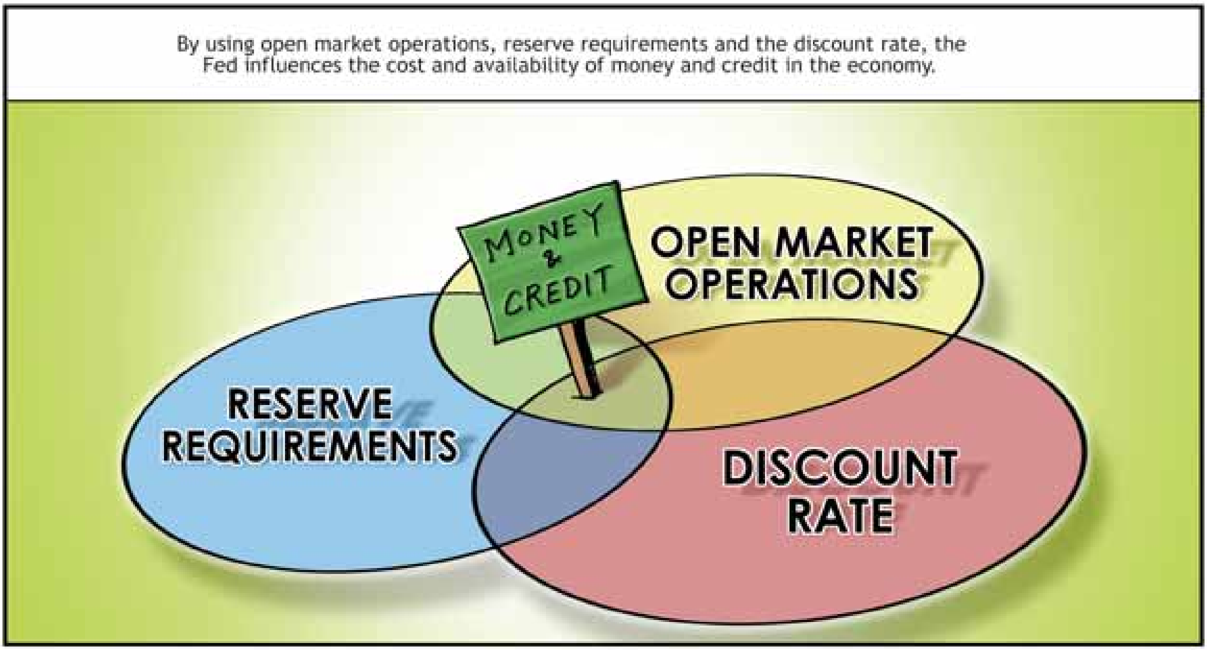
Still, reserve requirements affect how banks manage the money they lend and the deposits they take in. In turn, this influences the federal funds rate, the target of monetary policy.

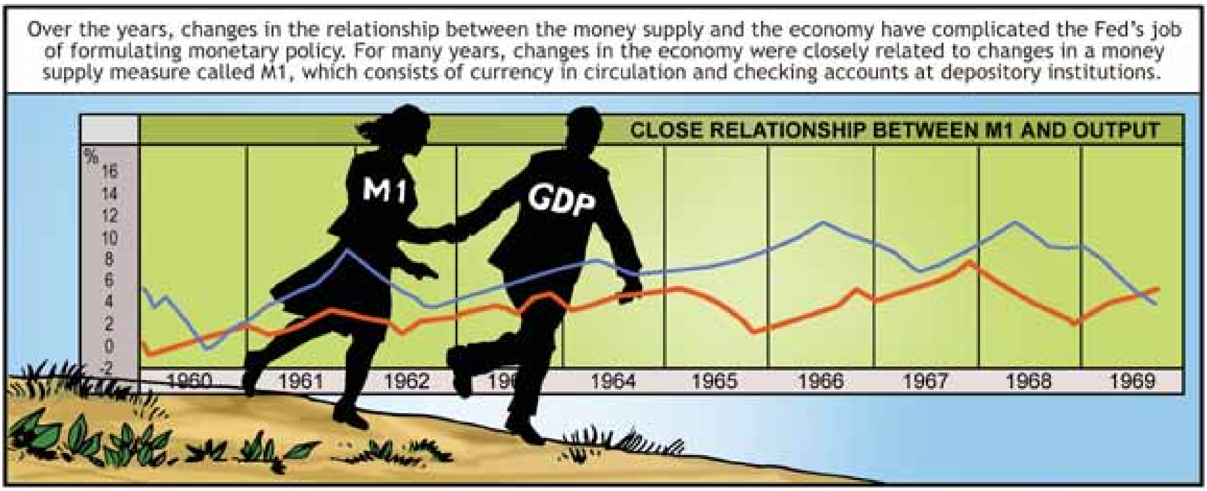
By law, the directors of each Federal Reserve Bank set its discount rate every two weeks, subject to the approval of the Board of Governors. Because the credit market is national, as a matter of practice, the discount rate is the same for all the Federal Reserve Banks.


An increase in the discount rate is seen as evidence of the Fed's aim to slow the pace of economic activity — perhaps in order to prevent inflation. A decrease in the discount rate is regarded as evidence of the Fed's aim to stimulate the pace of economic activity.
MORNING STAR
FED RAISES DISCOUNT RATE TO FORESTALL INFLATION
EVENING NEWS
FED CUTS DISCOUNT RATE TO BOOST SLUGGISH ECONOMY


For example, toward the middle of 2005, the FOMC raised the discount rate repeatedly in small steps. These increases removed some of the potential for future inflation caused by very low interest rates stimulating the economy unnecessarily.
DISCOUNT RATE
%
4.75
4.50
4.25
4.00
3.75
3.50
3.25
3.00
2.75
2.50
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
Jan-03
Mar-03
May-03
Jul-03
Sep-03
Nov-03
Jan-04
Mar-04
May-04
Jul-04
Sep-04
Nov-04
Jan-05
Mar-05
May-05
Jul-05

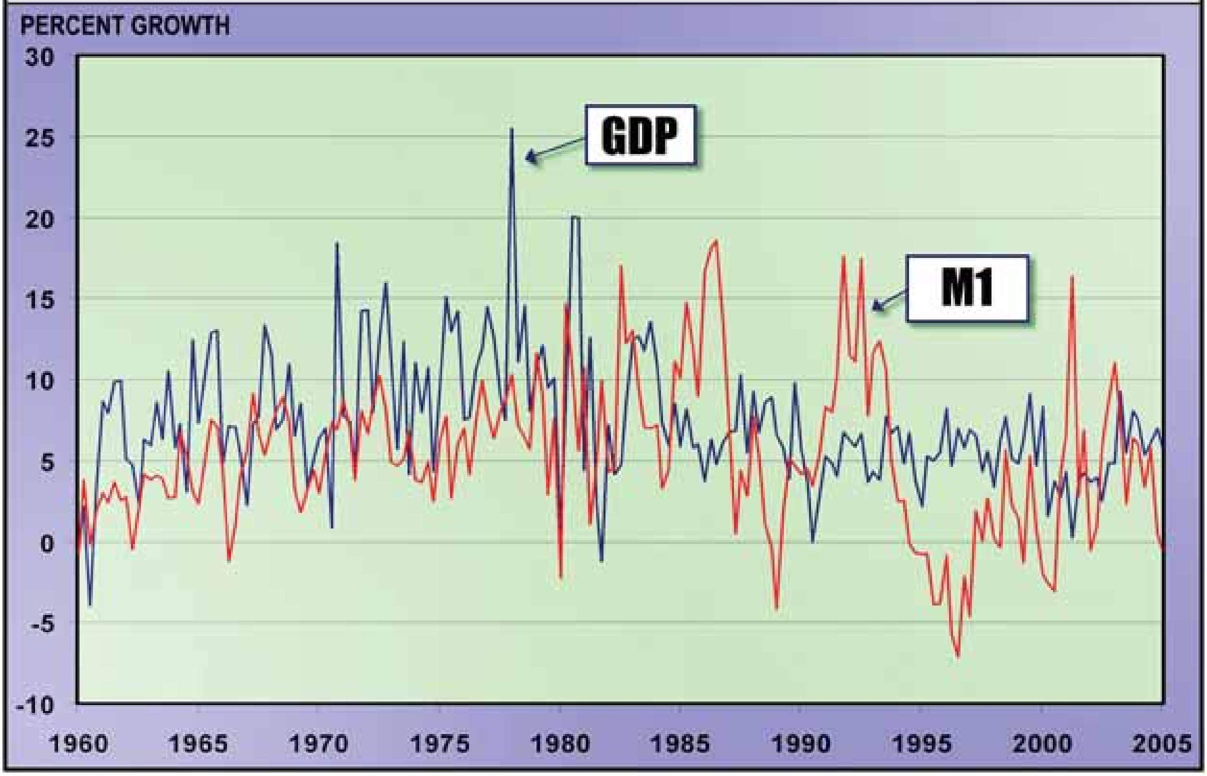

One way in which changes in the discount rate can affect the economy is through the psychological effect of announcements.
Hey, you read the papers. The Fed has raised the discount rate. I bet other rates are going to move up, too. Naturally, I have to charge you a higher rate.


By using open market operations, reserve requirements and the discount rate, the Fed influences the cost and availability of money and credit in the economy.
MONEY & CREDIT
OPEN MARKET OPERATIONS
RESERVE REQUIREMENTS
DISCOUNT RATE

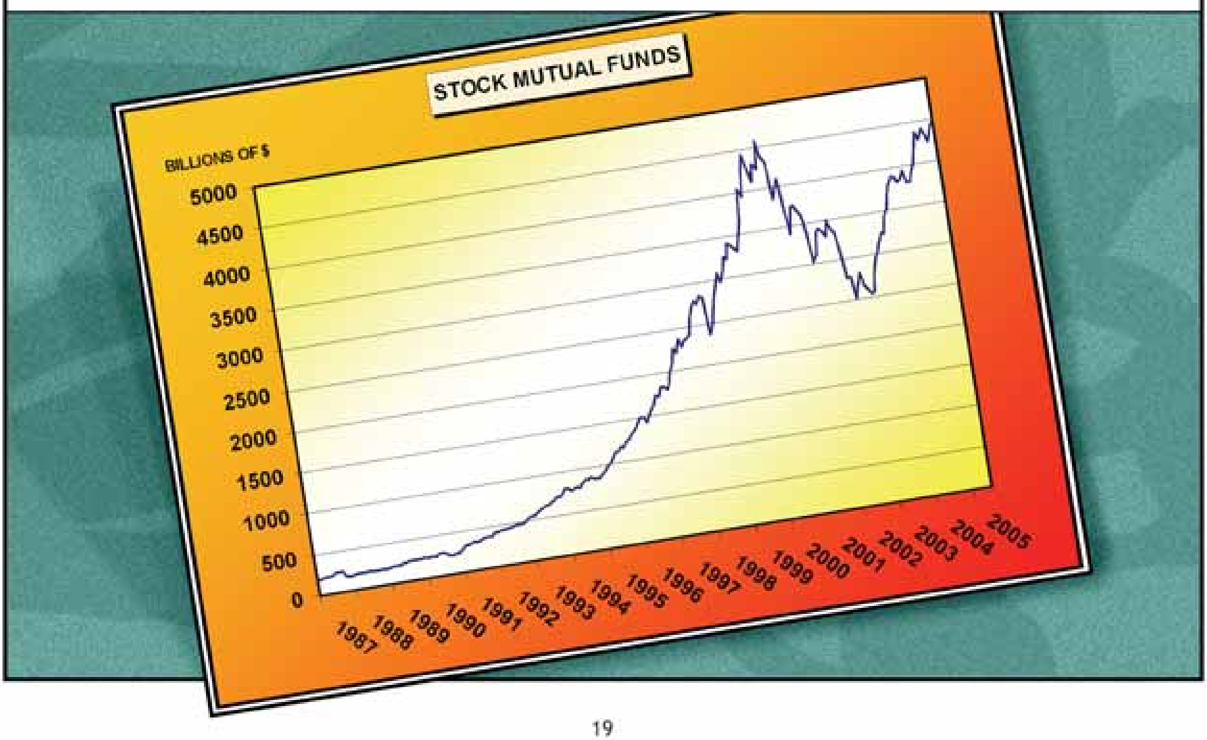

Over the years, changes in the relationship between the money supply and the economy have complicated the Fed's job of formulating monetary policy. For many years, changes in the economy were closely related to changes in a money supply measure called M1, which consists of currency in circulation and checking accounts at depository institutions.
CLOSE RELATIONSHIP BETWEEN M1 AND OUTPUT
%
16
14
12
10
8
6
4
2
0
-2
1960
1961
1962
1964
1965
1966
1967
1968
1969
M1
GDP

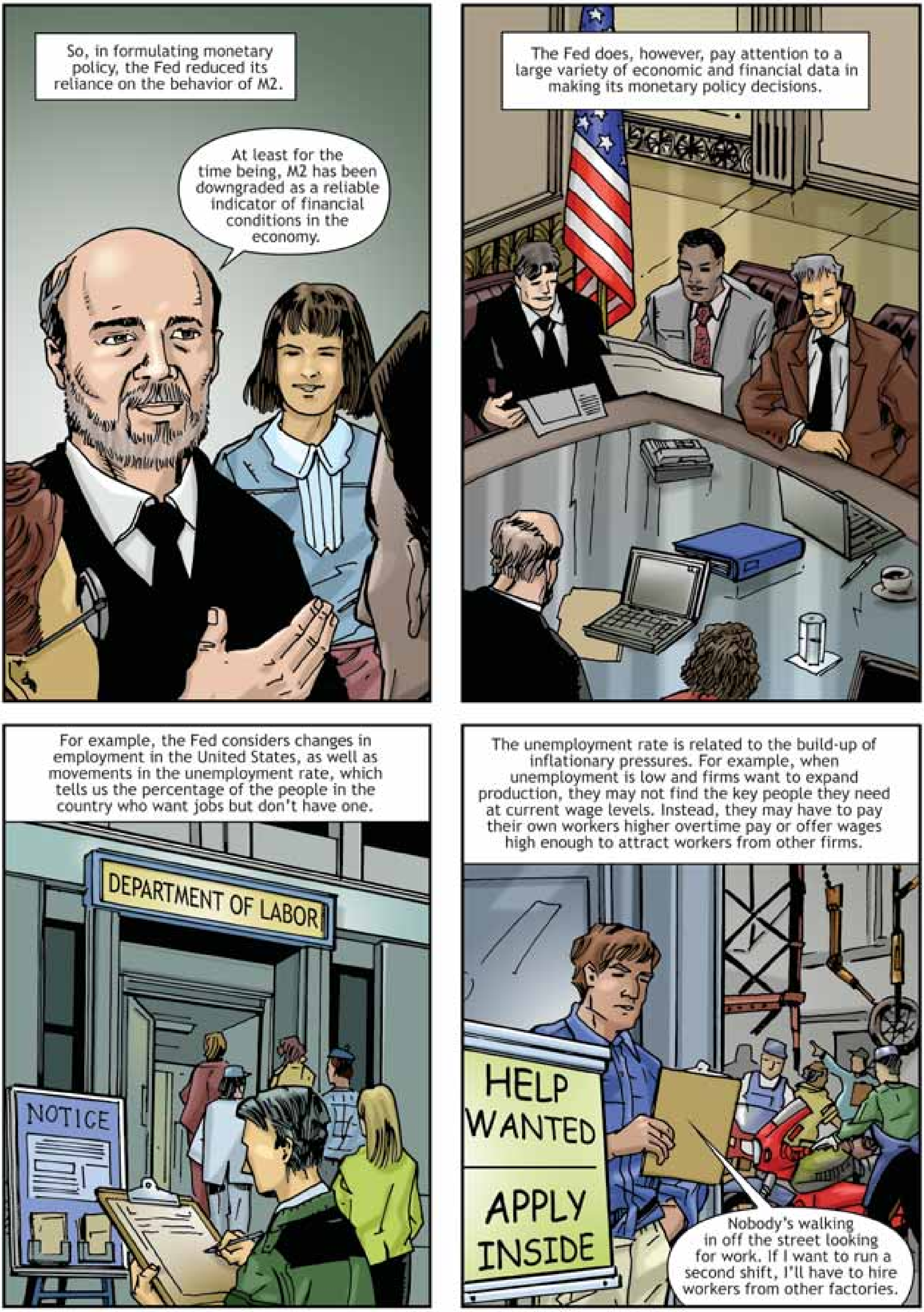

In making its monetary policy decisions, the Fed used to pay a lot of attention to the behavior of M1.
M1
FED

In the 1980s, though, when banks started paying interest on checking accounts, people put a lot more money into checking accounts. As a result of the rapid growth in M1, the relationship between M1 and the economy broke down.

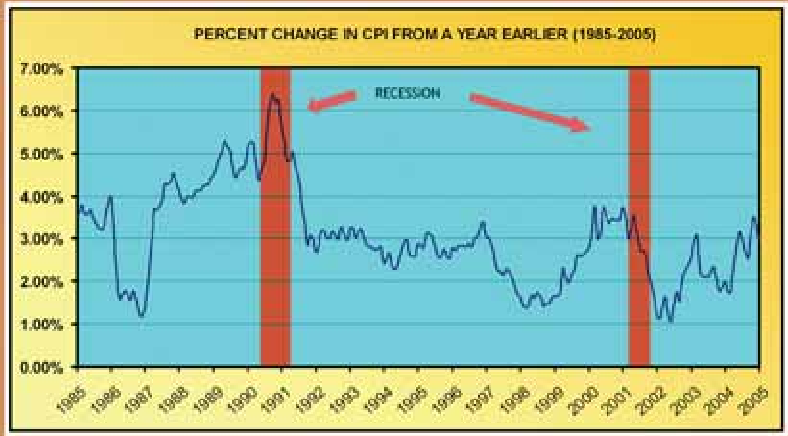


Similarly, the relationship between M2 (a broader measure that includes saving accounts as well as M1) and the economy broke down in the early 1990s, when interest rates were low. During this time, people pulled money out of saving accounts and put it into financial investments outside of banks — in investments such as mutual funds that are not included in the money supply.



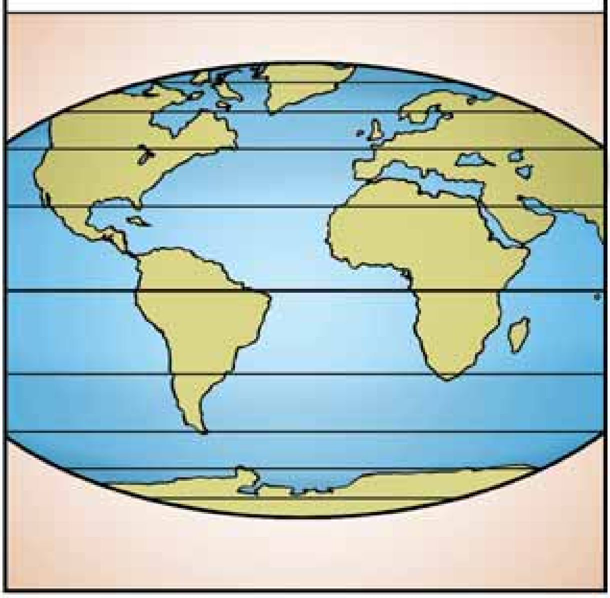

So, in formulating monetary policy, the Fed reduced its reliance on the behavior of M2.
At least for the time being, M2 has been downgraded as a reliable indicator of financial conditions in the economy.
The Fed does, however, pay attention to a large variety of economic and financial data in making its monetary policy decisions.
For example, the Fed considers changes in employment in the United States, as well as movements in the unemployment rate, which tells us the percentage of the people in the country who want jobs but don't have one.
DEPARTMENT OF LABOR
NOTICE
The unemployment rate is related to the build-up of inflationary pressures. For example, when unemployment is low and firms want to expand production, they may not find the key people they need at current wage levels. Instead, they may have to pay their own workers higher overtime pay or offer wages high enough to attract workers from other firms.
HELP WANTED
APPLY INSIDE
Nobody's walking in off the street looking for work. If I want to run a second shift, I'll have to hire workers from other factories.

The Fed also looks at a variety of inflation measures, including the consumer price index (CPI), which measures changes in the prices that consumers pay for things like food, clothing, rent and entertainment.

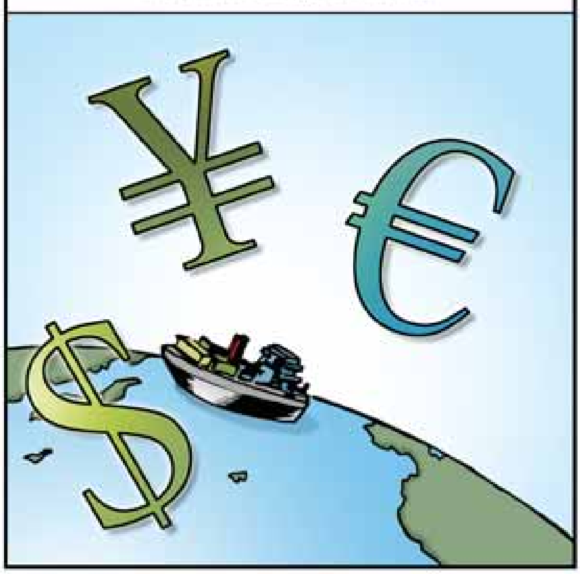


Sometimes, changes in the prices of commodities, such as lumber and copper, that are used in the production of many other items can provide early warnings of inflation.

International considerations complicate the making of monetary policy. In particular, international forces, including policies of other countries, can have substantial effects on the dollar exchange rate and U.S. interest rates.

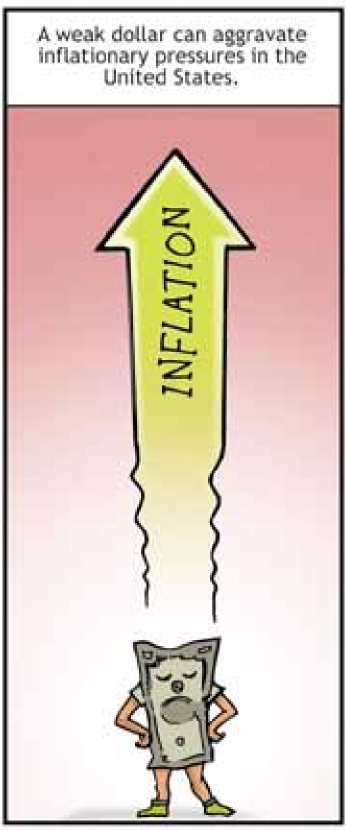


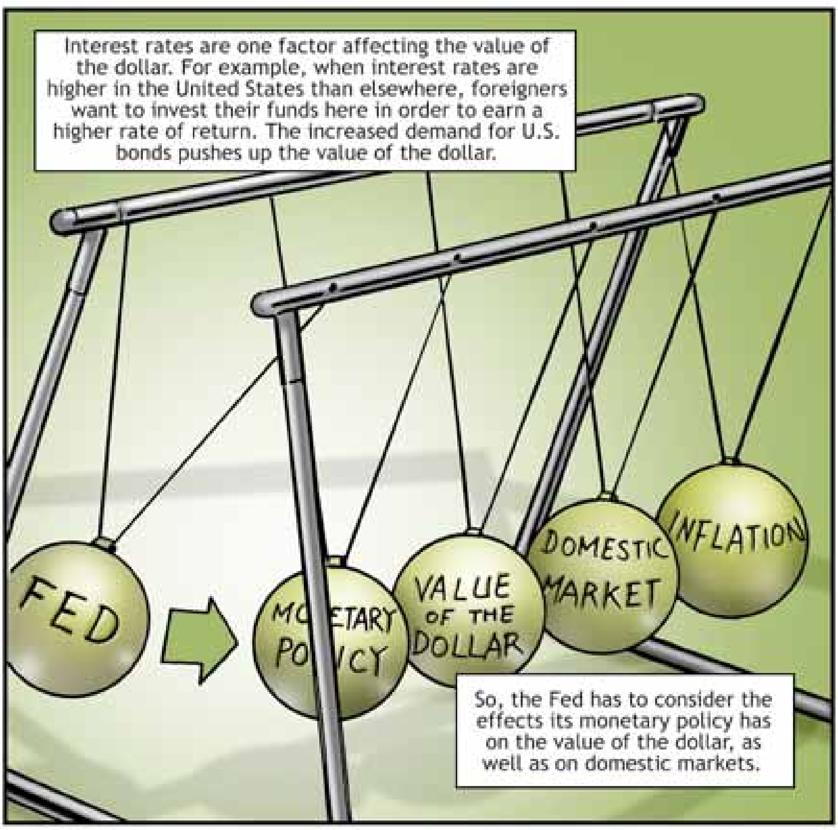
In recent years, international trade and international financial activity, such as U.S. bank lending abroad, have grown rapidly. As a result, the Fed has to be concerned about the value of the dollar, as measured in terms of foreign currencies.

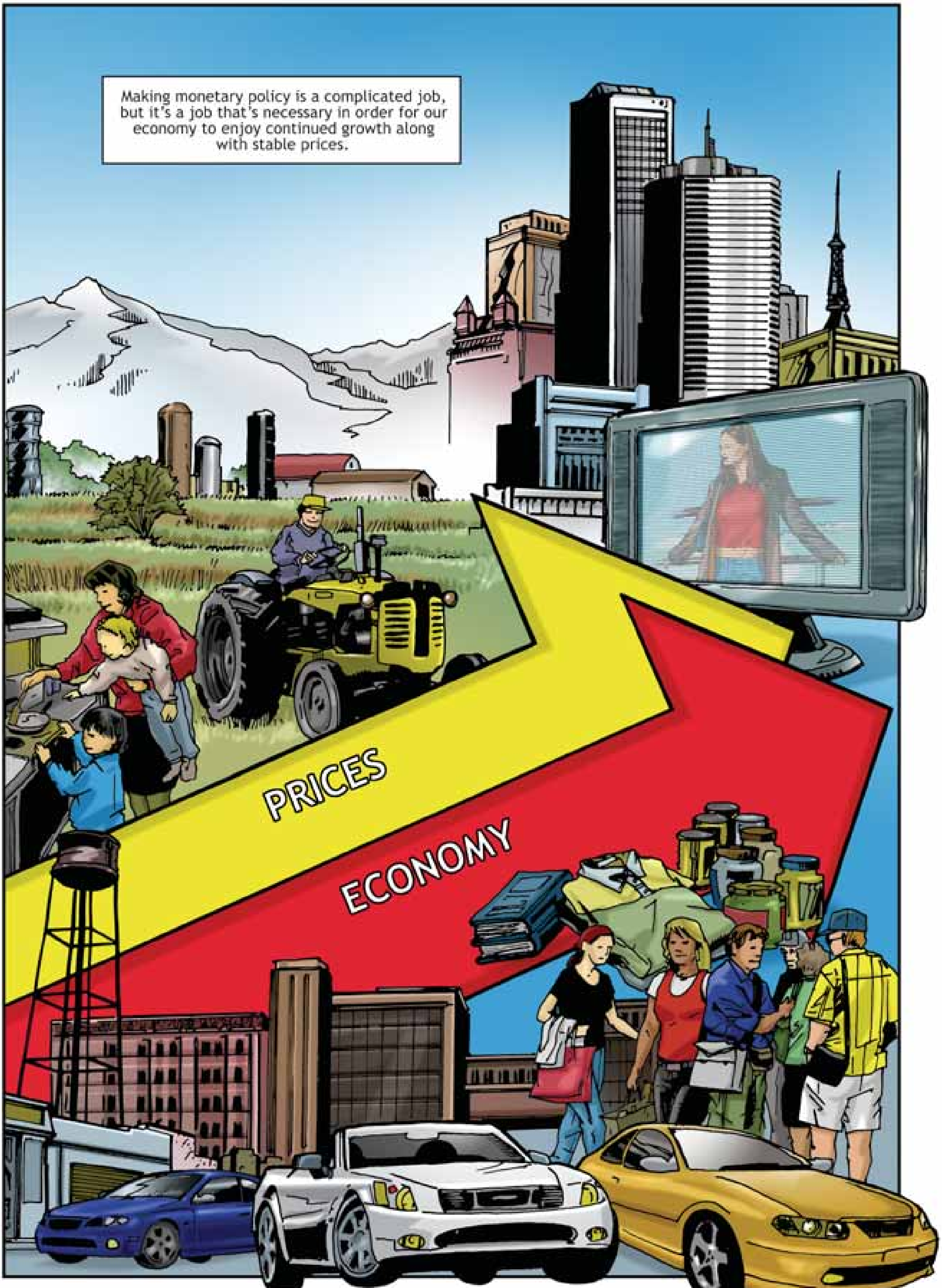


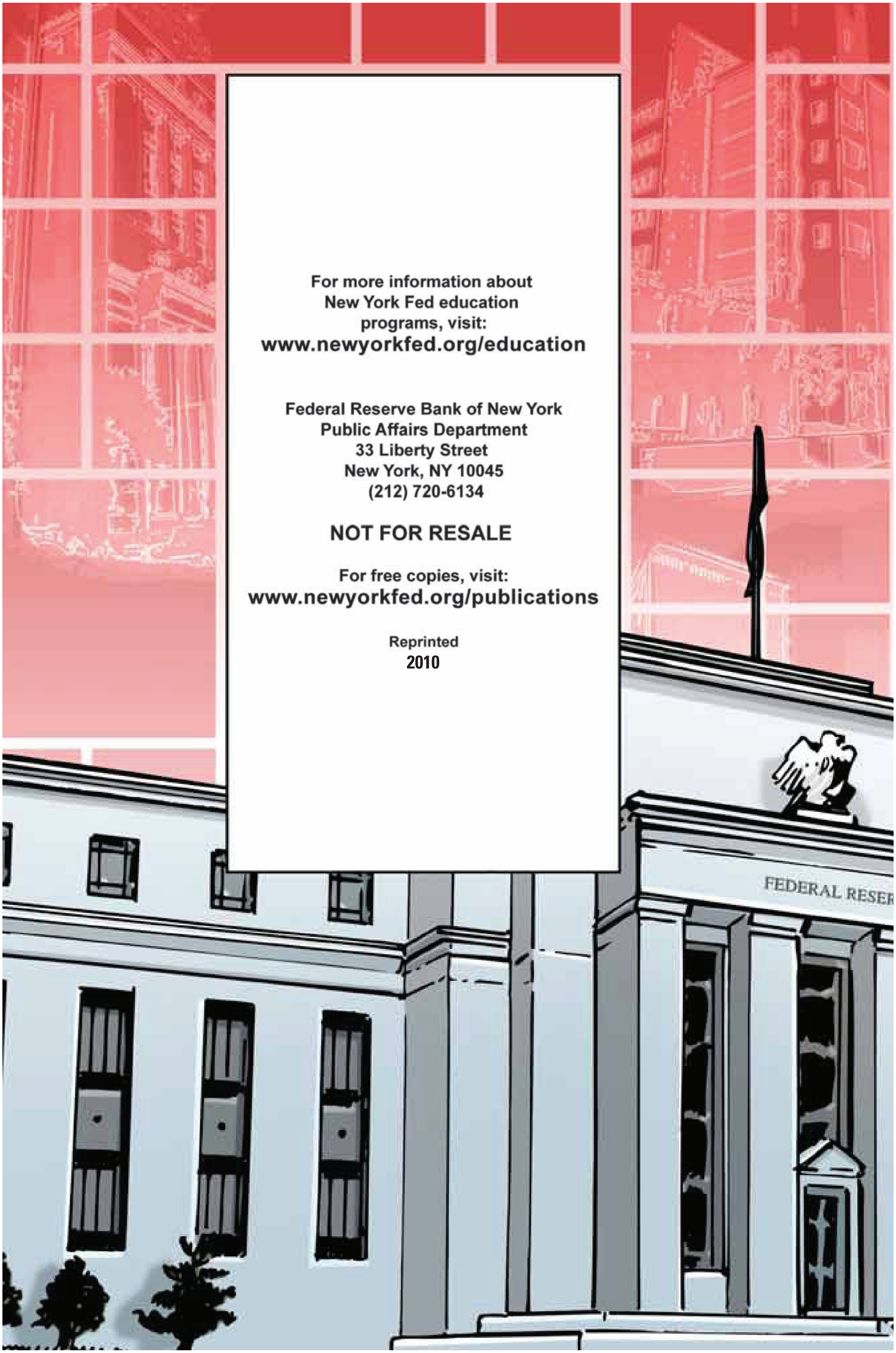

When the dollar is strong, Americans find foreign goods cheaper to import.


American goods are more expensive, though, so foreigners may buy fewer of them, reducing U.S. exports and jobs. When the dollar is weaker, foreigners find U.S. goods cheaper to import, so U.S. industries can export more.
I have more of a yen for American products when it doesn't take so many yen to buy them.


A weak dollar can aggravate inflationary pressures in the United States.
INFLATION


Interest rates are one factor affecting the value of the dollar. For example, when interest rates are higher in the United States than elsewhere, foreigners want to invest their funds here in order to earn a higher rate of return. The increased demand for U.S. bonds pushes up the value of the dollar.
FED
MONETARY POLICY
VALUE OF THE DOLLAR
DOMESTIC MARKET
INFLATION
So, the Fed has to consider the effects its monetary policy has on the value of the dollar, as well as on domestic markets.


Making monetary policy is a complicated job, but it's a job that's necessary in order for our economy to enjoy continued growth along with stable prices.
PRICES
ECONOMY



For more information about
New York Fed education
programs, visit:
www.newyorkfed.org/education

Federal Reserve Bank of New York
Public Affairs Department
33 Liberty Street
New York, NY 10045
(212) 720-6134

NOT FOR RESALE

For free copies, visit:
www.newyorkfed.org/publications

Reprinted
2010