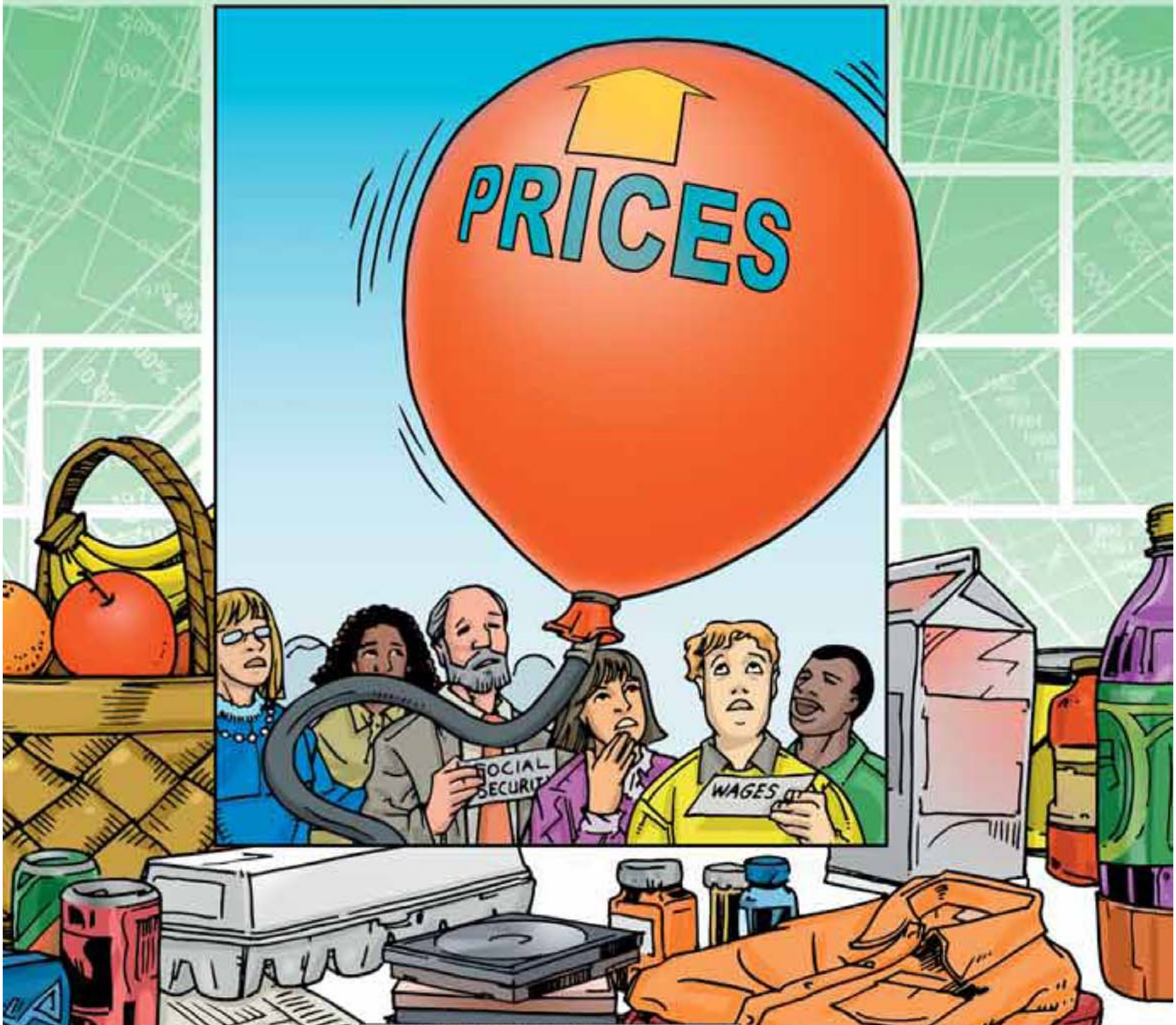
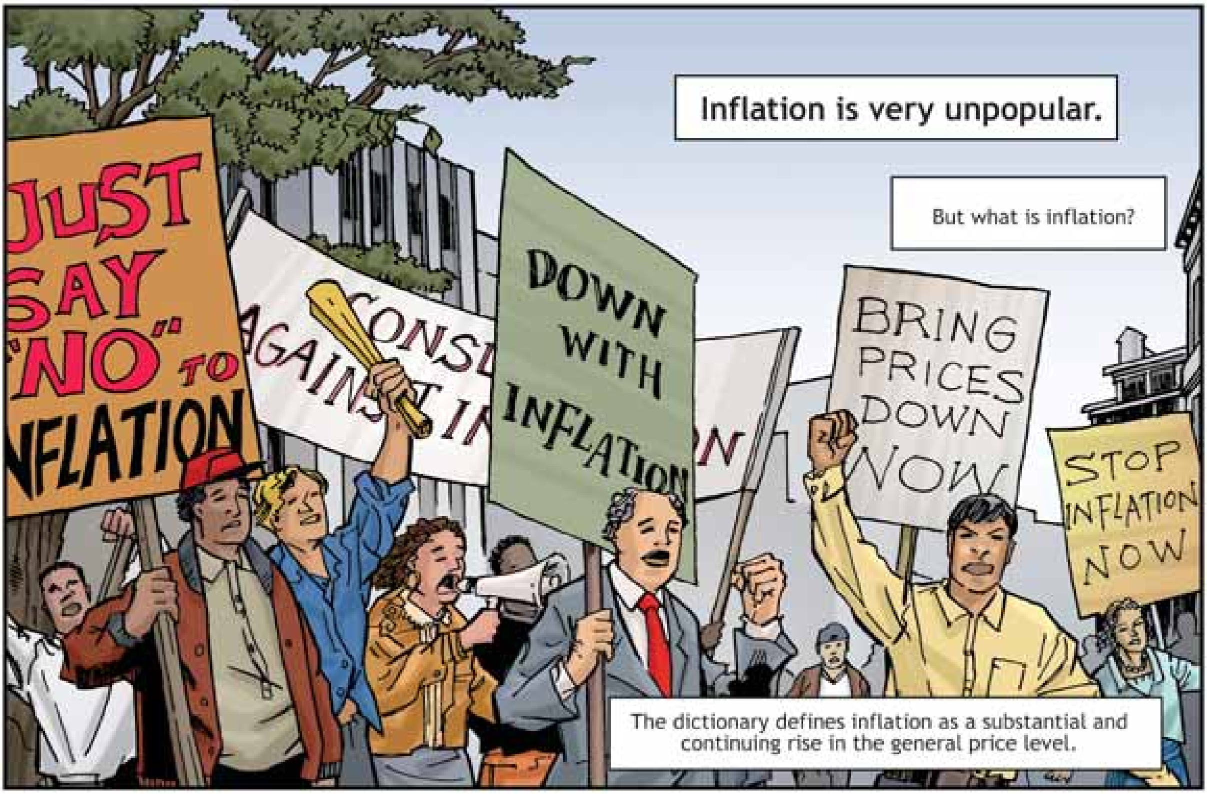
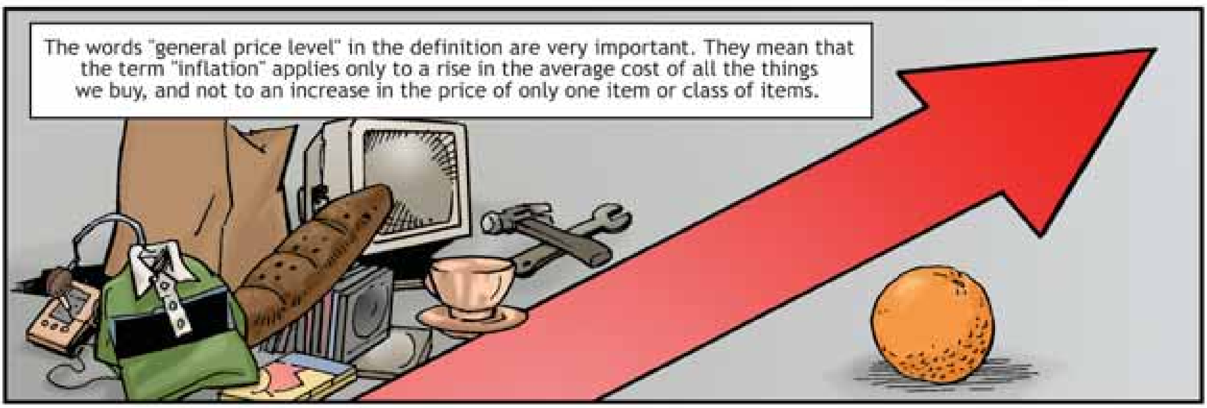
THE STORY OF INFLATION

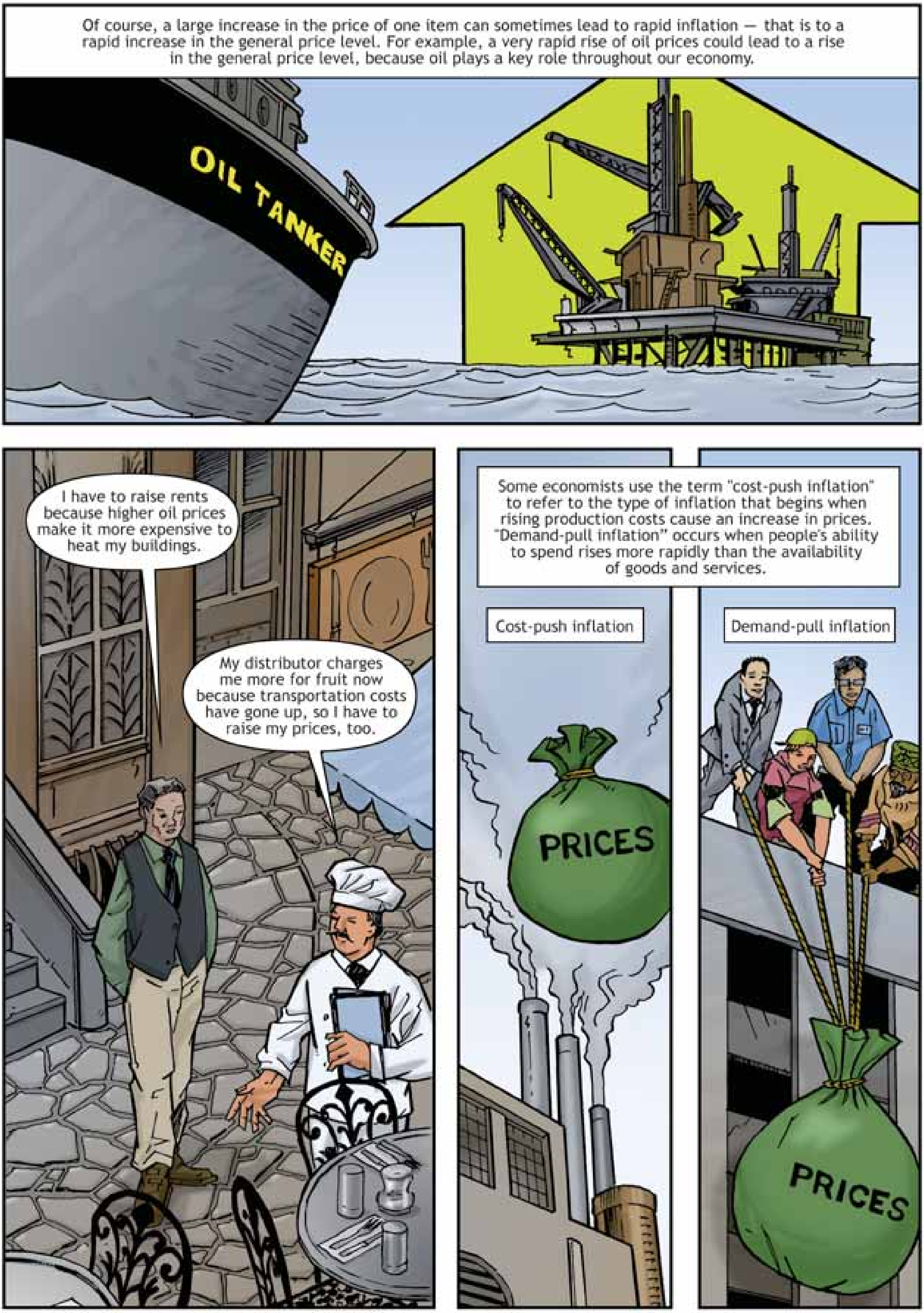


FEDERAL RESERVE BANK OF NEW YORK


Inflation is very unpopular.
But what is inflation?
JUST SAY "NO" TO NFLATION
DOWN WITH INFLATION
BRING PRICES DOWN NOW
STOP INFLATION NOW
The dictionary defines inflation as a substantial and continuing rise in the general price level.


The words "general price level" in the definition are very important. They mean that the term "inflation" applies only to a rise in the average cost of all the things we buy, and not to an increase in the price of only one item or class of items.


If inflation is so slow these days, why has the price of oranges gone up so much?
It has nothing to do with inflation. It's just that a frost in Florida destroyed a lot of the orange crop. With the supply down, people who want oranges have to pay more for them.
~~$.99/lb.~~
$2.99/lb
24hr PARKING
Original story by: Ed Steinberg
Revised by: Steven Malin
Art by: Jesse Chen

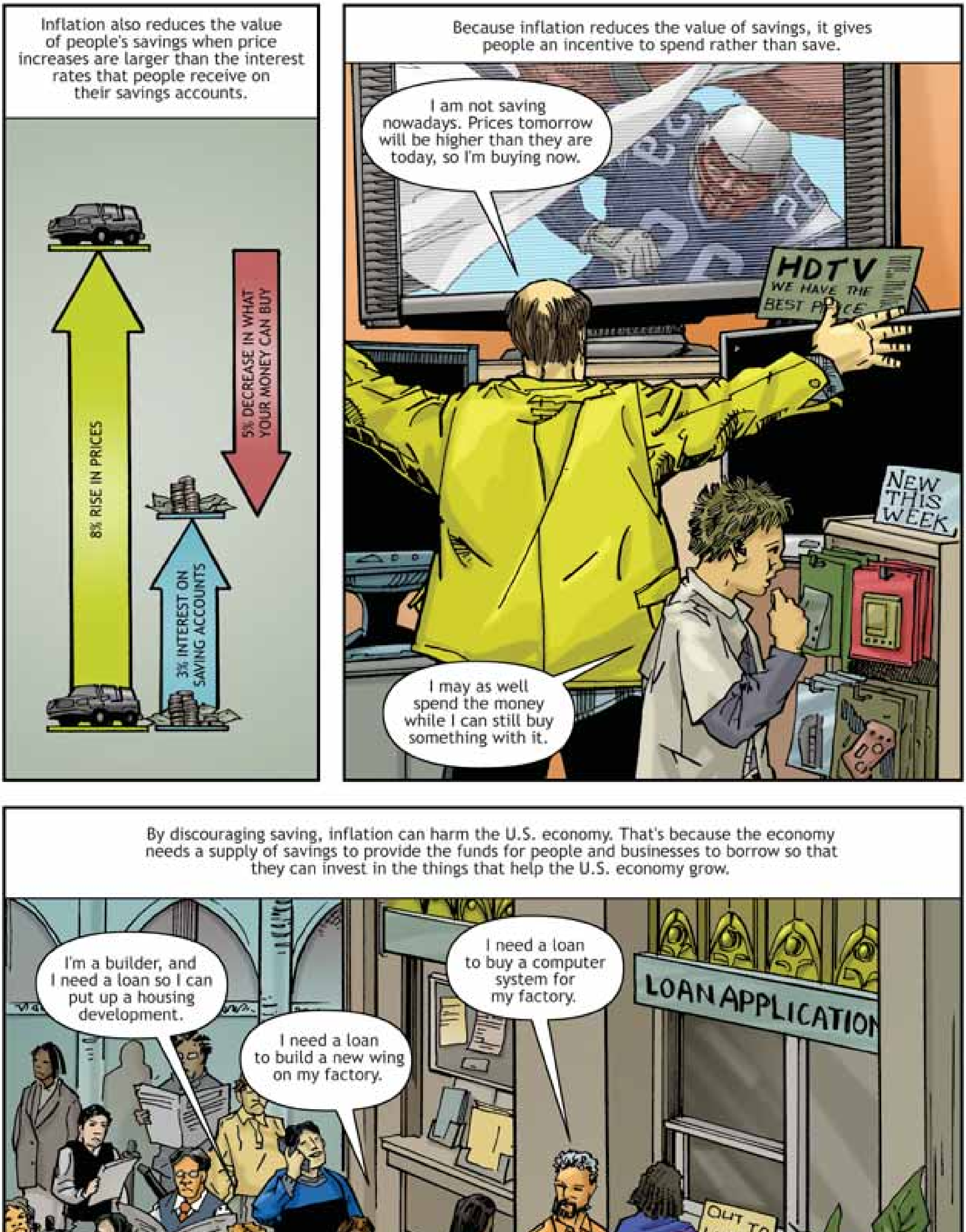

Of course, a large increase in the price of one item can sometimes lead to rapid inflation — that is to a rapid increase in the general price level. For example, a very rapid rise of oil prices could lead to a rise in the general price level, because oil plays a key role throughout our economy.
OIL TANKER
I have to raise rents because higher oil prices make it more expensive to heat my buildings.
My distributor charges me more for fruit now because transportation costs have gone up, so I have to raise my prices, too.
Some economists use the term "cost-push inflation" to refer to the type of inflation that begins when rising production costs cause an increase in prices. "Demand-pull inflation" occurs when people's ability to spend rises more rapidly than the availability of goods and services.
Cost-push inflation
PRICES
Demand-pull inflation
PRICES


What's wrong with inflation anyway? After all, if prices go up, people who sell things will receive more dollars than they did before. That means that incomes go up too. What's wrong with that?
Maybe we should put down our signs.
STOP INFLATION NOW
BRING PRICES DOWN
NEW PAYCHECK


One answer is that not everyone's income goes up as much as prices do. People whose incomes rise less than prices – or don't rise at all – are hurt by inflation. They are unable to buy all the things they used to with their income.
$1,050
~~$1,000~~
$210
~~$200~~
I got a 3% raise, but with prices up more than 5%, I'm worse off than I was before.

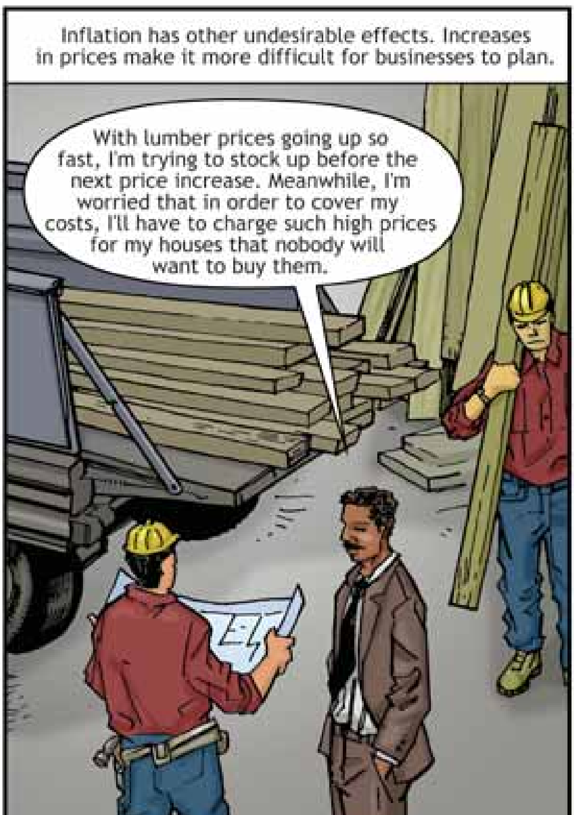

Among those hurt by inflation are lenders who charge interest rates that are lower than the rate of inflation. For example, suppose someone extends a one-year loan at an interest rate of 5% and then prices go up 10% during the year. The lender will be repaid with money that has less purchasing power that did the money he parted with a year earlier.
It now costs $110 to buy what the $100 I lent you last year could buy then, but you're paying me back only $105.


Many retired people are hurt by inflation because their pensions don't keep up with increases in the price level.
I remember the good old days when my pension allowed me to enjoy a few luxuries, like an occasional movie.


Inflation also reduces the value of people's savings when price increases are larger than the interest rates that people receive on their savings accounts.
8% RISE IN PRICES
3% INTEREST ON SAVING ACCOUNTS
5% DECREASE IN WHAT YOUR MONEY CAN BUY
Because inflation reduces the value of savings, it gives people an incentive to spend rather than save.
I am not saving nowadays. Prices tomorrow will be higher than they are today, so I'm buying now.
HDTV
WE HAVE THE
NEW THIS WEEK
I may as well spend the money while I can still buy something with it.
By discouraging saving, inflation can harm the U.S. economy. That's because the economy needs a supply of savings to provide the funds for people and businesses to borrow so that they can invest in the things that help the U.S. economy grow.
I'm a builder, and I need a loan so I can put up a housing development.
I need a loan to build a new wing on my factory.
I need a loan to buy a computer system for my factory.
LOAN APPLICATIO
OUT TO LUNCH


Inflation can hurt, too, by giving people an incentive to invest in ways that don't help the economy grow.
I'm investing in jewelry because I'm worried about inflation, and I think that jewelry will rise in value faster than other prices will go up.
If I put my savings into the bank instead, I'm afraid that inflation will reduce the real purchasing power of my bank account.


To enable people to protect the purchasing power of their savings, the federal government began issuing inflation-indexed bonds in 1997. These bonds allow people to lend to the government and then be repaid an amount that will rise in relation to how much prices rise.
I know this bond will allow me to buy at least as much 10 years from now as I can now.
INFLATION - INDEXED
BOND


Inflation has other undesirable effects. Increases in prices make it more difficult for businesses to plan.
With lumber prices going up so fast, I'm trying to stock up before the next price increase. Meanwhile, I'm worried that in order to cover my costs, I'll have to charge such high prices for my houses that nobody will want to buy them.


Inflation feeds on itself. When a flour mill has to pay higher prices for wheat, for example, it has to charge higher prices for the flour it sells. The bakeries that buy the flour then have to charge higher prices for the bread and cakes they sell.
I have to charge you more dough for the bread because I have to pay a higher price for flour.
NEW PRICE
$4.99
FRESH
BREAD
EVERY DAY


The process can easily become a vicious cycle, because when workers see the prices they pay going up, they'll push for higher pay, and if their employers raise their pay, they'll have to raise prices to cover the increased expense. Some people call this process the "wage-price spiral."
HIGHER PRICES
HIGHER PAY
HIGHER PRICES
HIGHER PAY
As an "inflationary psychology" sets in, people may try to beat anticipated price increases by buying more of certain items than they need, and they may buy other items before they need them.
LOADING DOCK B
Future goods
I'm not even dating anyone, but I figure I'd better buy a wedding gown before prices go up more!
When people realize they have overbought, they will cut back on their spending, and the result can be a recession, a downturn in economic activity that brings a decline in production and an increase in unemployment.
Our sales are way down because builders bought more lumber than they needed a few months ago, when they were worried about price increases. Now they're not buying, so we're going to have to lay off some workers.


In fact, since World War II, most recessions have followed a sustained increase in the core rate of inflation.
MR. RECESSION
MR. INFLATION


"Core" inflation refers to increases in the general price level, excluding food and energy prices. Those prices are excluded because they are influenced by special — and temporary — factors, such as weather conditions or production decisions made by oil-exporting countries, so they may present a misleading picture of continuing price pressures in the economy.
MORNING STAR
FROST DRIVES FOOD PRICES UP; OTHER PRICES UNCHANGED
THE SUN
WEAK DEMAND KEEPS PRICE LEVEL STABLE DESPITE HIKE IN OIL PRICES


Another threat is that if inflation goes unchecked, it can turn into hyperinflation, in which prices rise extremely rapidly.
I can't find the words to describe how quickly prices are going up.
STORY OF THE FEDERAL RESERVE SYSTEM
NEW DICTIONARY
ABC
$205.95
~~$105.95~~
~~$65.95~~
~~$25.95~~


Hyperinflation has occurred a number of times – in Brazil and Russia in the early 1990's, for example – and has often led to social unrest.
NO MORE INFLATION PLEASE
THE END IS NEAR

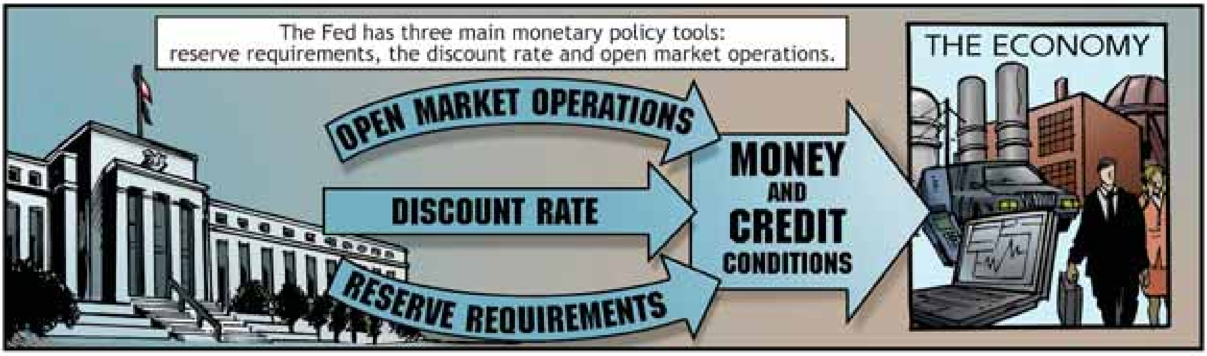

A very notable episode of hyperinflation occurred in Germany in the 1920s and led to great social unrest in that country. In the German hyperinflation, the real purchasing power of money fell so low that the German currency, the mark, became a cheaper fuel than firewood.
MARK
MARK
MARK
MARK

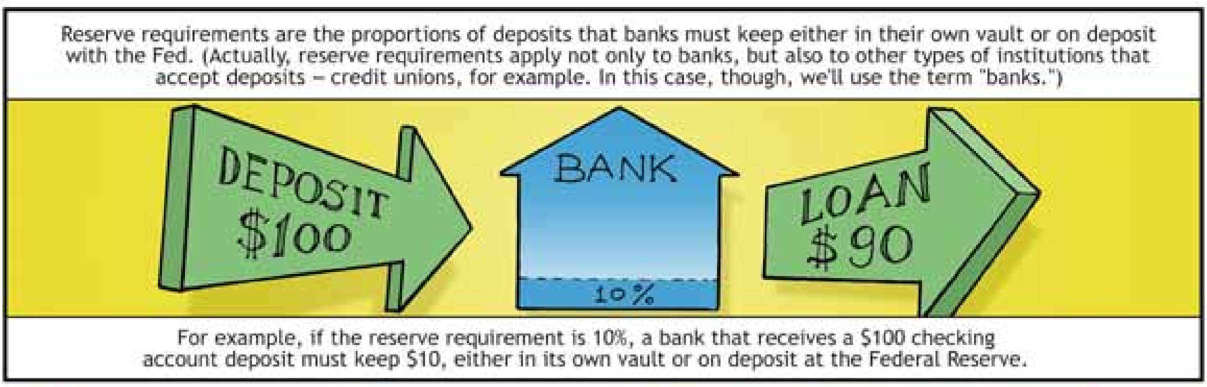

We have seen that inflation can cause uncertainty and economic and social instability. But what causes inflation?
INFLATION


The answer is that inflation results when there is too much money and credit around in relation to the amount of goods and services. By "money," we mean cash in circulation and the amounts that people and businesses have in bank accounts. "Credit" refers to the amounts that banks and other lenders have lent or have available to lend.

When people have more money to spend and the volume of goods and services doesn't increase as fast, sellers find that they can raise their prices and sell as much as they did before.
That guy with the black hat looks familiar.
$2.00
Boss, every customer comes in with a fistful of dollars. Should I put up the new sign?
Go ahead, make my day.
It's the job of the Federal Reserve System (known familiarly as "the Fed") to make sure that money and credit don't grow too rapidly and lead to inflation.
INFLATION
FED
RECESSION
The Fed's job of influencing money and credit conditions in the economy often is a balancing act. If money and credit grow too rapidly, inflation can result. If they grow too slowly, the result can be a recession.
Too slow money and credit growth can cause a recession because people and businesses won't be able to get the loans they need for major purchases at affordable interest rates.
I'm afraid you won't be able to buy the car. Interest rates are way up because there's not much money to lend. And you can't afford to pay higher rates.
New 2006
I know you would like to expand your factory, but because we don't have much money to lend, we have to charge a higher interest rate than you can afford.


The Fed's actions to influence money and credit conditions in the economy – in order to promote economic growth and price stability – are known as "monetary policy."


The Fed has three main monetary policy tools:
reserve requirements, the discount rate and open market operations.
OPEN MARKET OPERATIONS
DISCOUNT RATE
RESERVE REQUIREMENTS
MONEY AND CREDIT CONDITIONS
THE ECONOMY

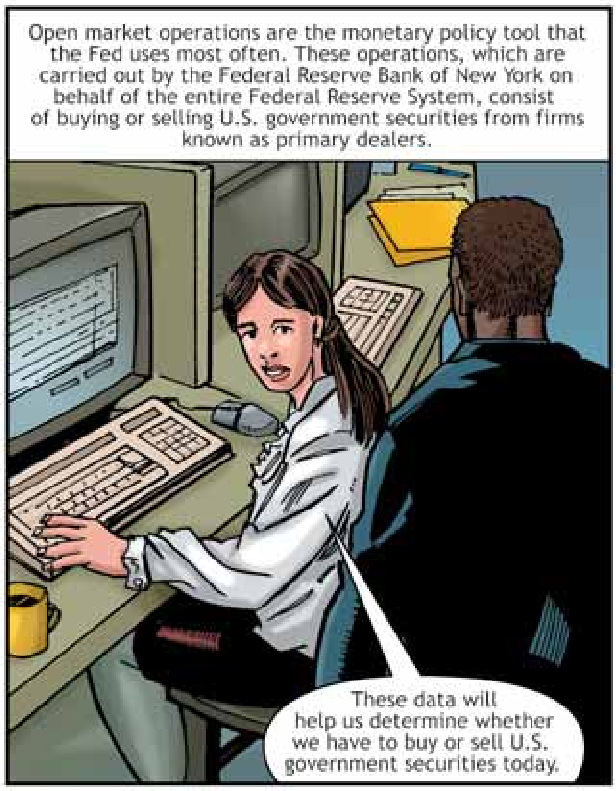

Reserve requirements are the proportions of deposits that banks must keep either in their own vault or on deposit with the Fed. (Actually, reserve requirements apply not only to banks, but also to other types of institutions that accept deposits – credit unions, for example. In this case, though, we'll use the term "banks.")
DEPOSIT $100
BANK
10%
LOAN $90
For example, if the reserve requirement is 10%, a bank that receives a $100 checking account deposit must keep $10, either in its own vault or on deposit at the Federal Reserve.

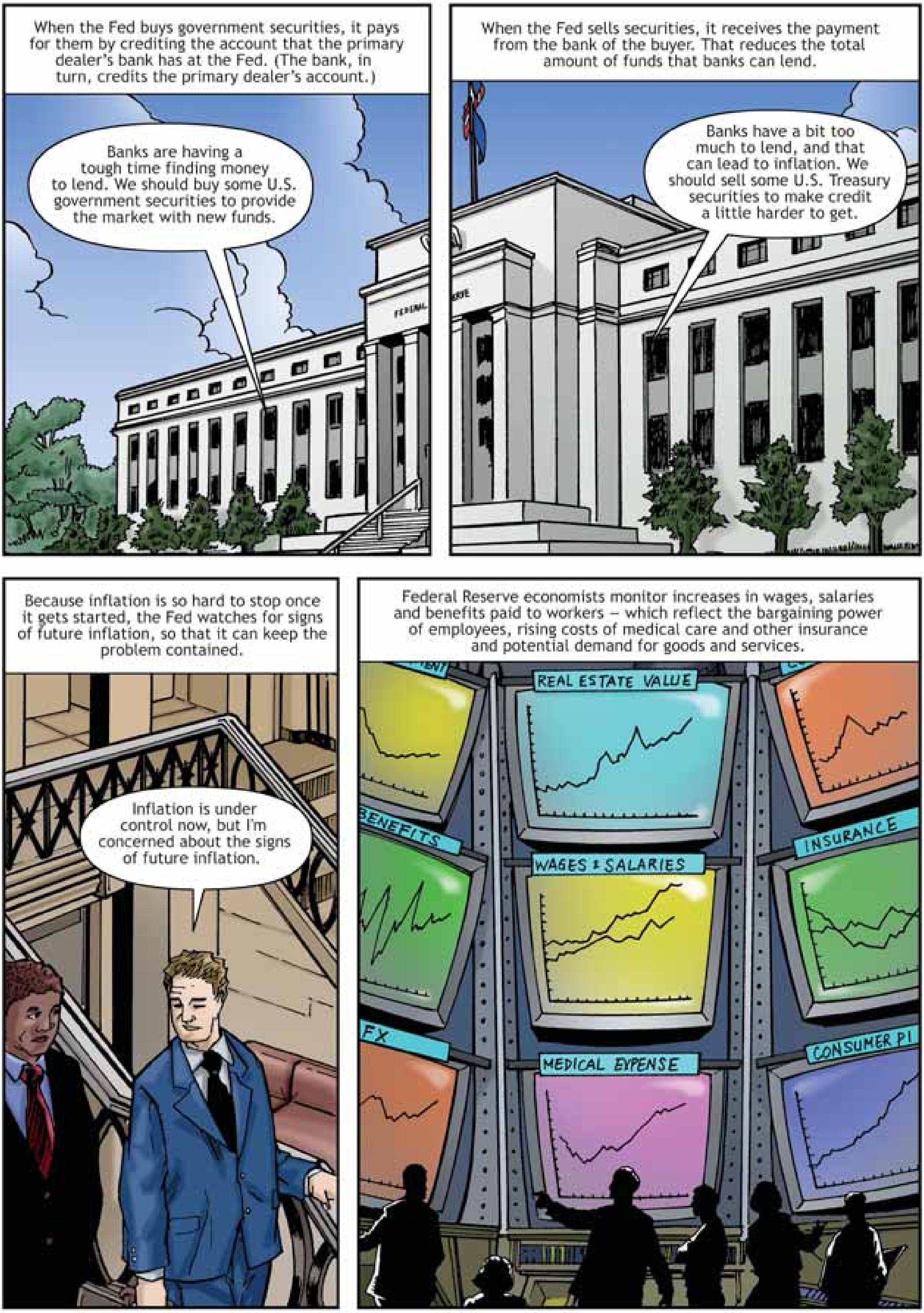

Lower reserve requirements enable banks to lend more of their deposits; higher reserve requirements shrink the availability of credit.
If the Fed raises reserve requirements, I won't be able to lend as much.


In practice, the Fed does not change reserve requirements very often. In 2008, for example, the reserve requirement on checking accounts had been unchanged at 10% for 14 years.
The last time the Board of Governors changed reserve requirements, I was in a crib.


The discount rate is the interest rate that the Fed charges on short-term loans to banks for any reason.
My bank needs an overnight loan. We had some sudden large withdrawals and we can't meet our reserve requirements without a loan.

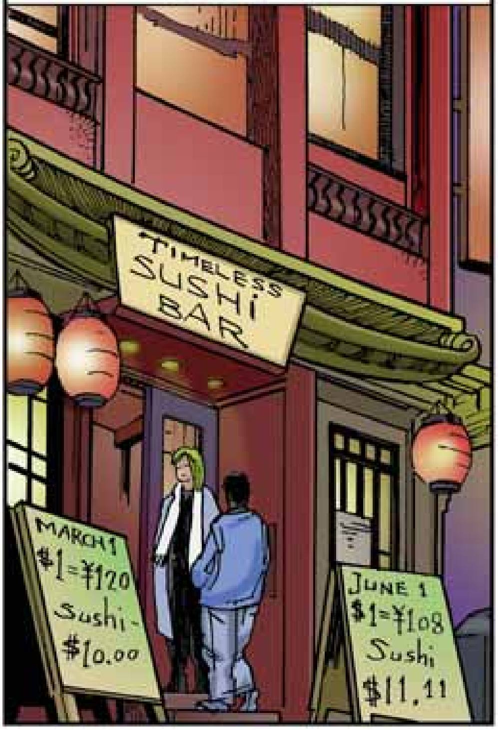

When the Fed lowers the discount rate, it may be an indication that it would like to see an increase in credit — and in economic activity. When the Fed raises the discount rate, it may be issuing a signal that it wants to "cool off the economy," because it is concerned about the threat of inflation.
DISCOUNT RATE
I guess the Fed wants to make sure that inflation doesn't become a problem.
ECONOMY


Open market operations are the monetary policy tool that the Fed uses most often. These operations, which are carried out by the Federal Reserve Bank of New York on behalf of the entire Federal Reserve System, consist of buying or selling U.S. government securities from firms known as primary dealers.
These data will help us determine whether we have to buy or sell U.S. government securities today.

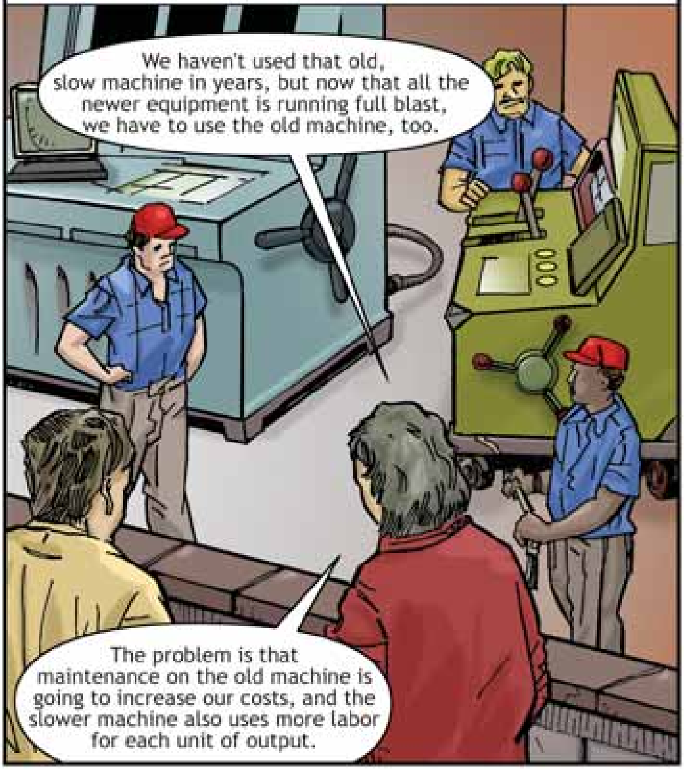


When the Fed buys government securities, it pays for them by crediting the account that the primary dealer's bank has at the Fed. (The bank, in turn, credits the primary dealer's account.)
Banks are having a tough time finding money to lend. We should buy some U.S. government securities to provide the market with new funds.
When the Fed sells securities, it receives the payment from the bank of the buyer. That reduces the total amount of funds that banks can lend.
Banks have a bit too much to lend, and that can lead to inflation. We should sell some U.S. Treasury securities to make credit a little harder to get.
Because inflation is so hard to stop once it gets started, the Fed watches for signs of future inflation, so that it can keep the problem contained.
Inflation is under control now, but I'm concerned about the signs of future inflation.
Federal Reserve economists monitor increases in wages, salaries and benefits paid to workers — which reflect the bargaining power of employees, rising costs of medical care and other insurance and potential demand for goods and services.
REAL ESTATE VALUE
BENEFITS
WAGES & SALARIES
INSURANCE
FX
MEDICAL EXPENSE
CONSUMER PI

The Fed keeps track of the value of the U.S. dollar relative to the currencies of major trading partners. For example, depreciation in the dollar relative to Japan's currency, the yen, increases the price of everything imported from Japan.

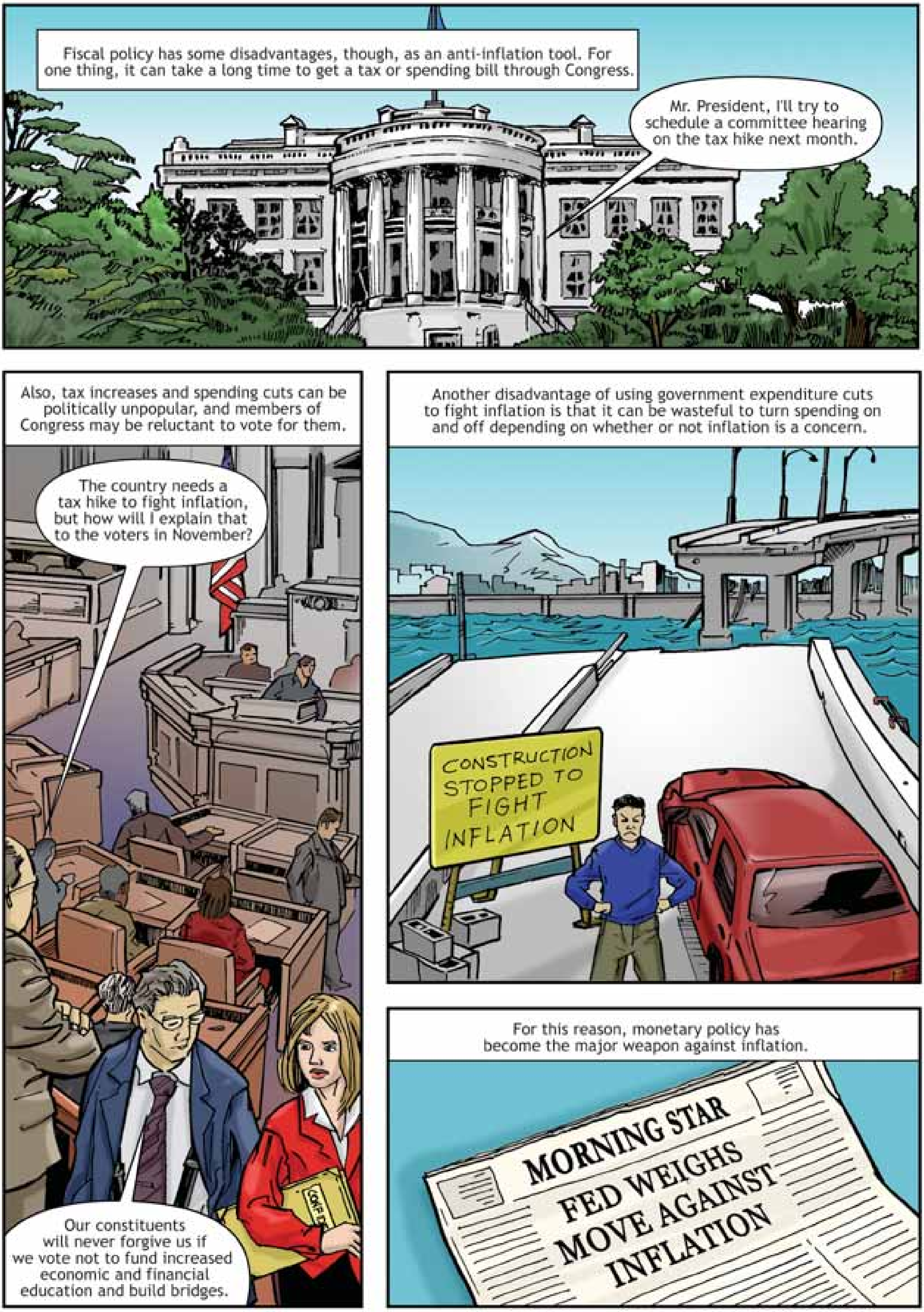


Similarly, the Fed watches data on the use of manufacturing capacity. When capacity utilization gets very high, companies may have to start using less efficient machinery, and that can lead to cost and price increases.

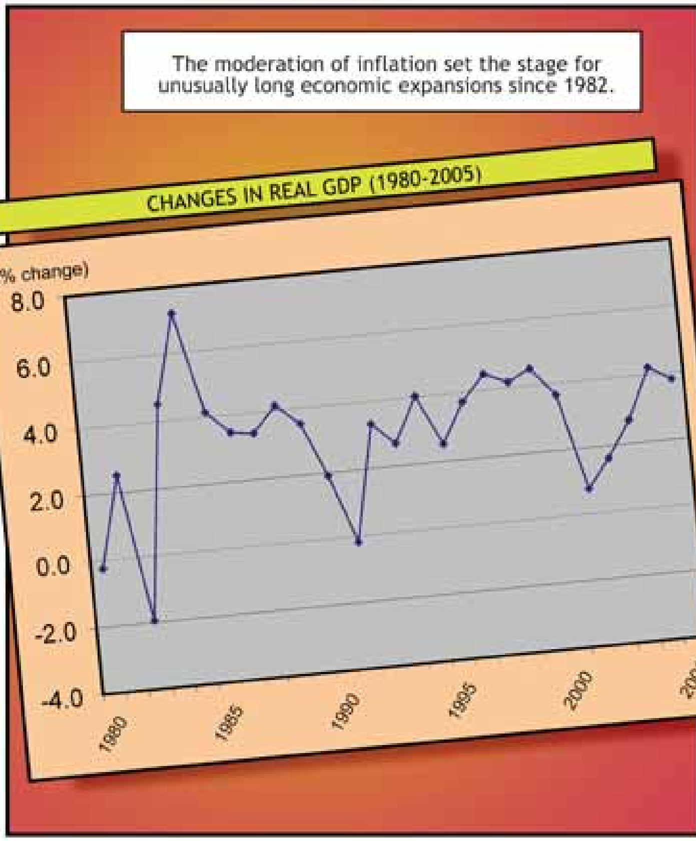


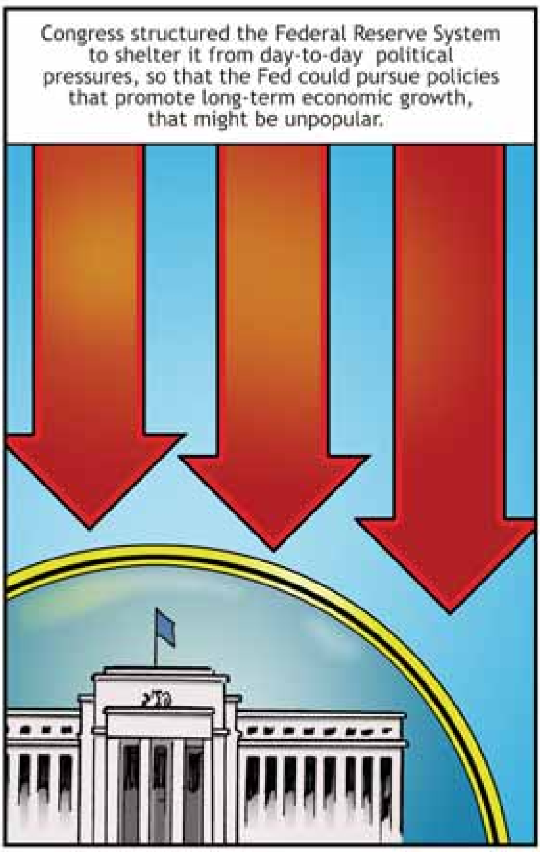
Fiscal policy, which involves the use of government spending and taxes, is another anti-inflation tool. If inflation threatens, the government can cut its spending and thereby reduce demand for the available supply of goods and services.

To fight inflation, the government could also raise personal income taxes, thus reducing spendable income and the private demand for goods and services.

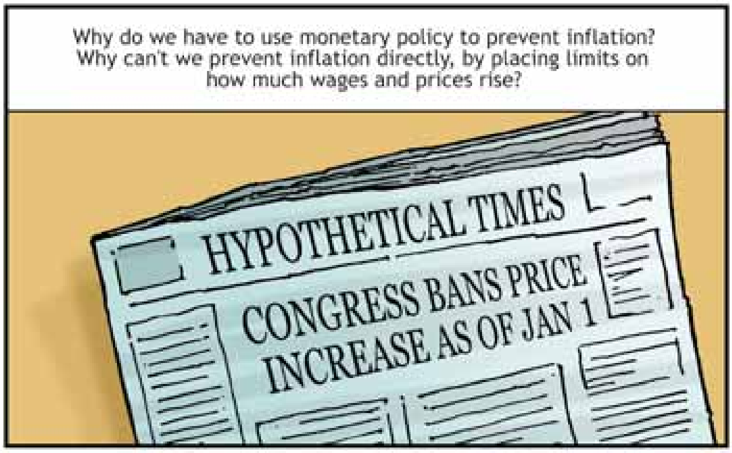

Fiscal policy has some disadvantages, though, as an anti-inflation tool. For one thing, it can take a long time to get a tax or spending bill through Congress.
Mr. President, I'll try to schedule a committee hearing on the tax hike next month.
Also, tax increases and spending cuts can be politically unpopular, and members of Congress may be reluctant to vote for them.
The country needs a tax hike to fight inflation, but how will I explain that to the voters in November?
Our constituents will never forgive us if we vote not to fund increased economic and financial education and build bridges.
Another disadvantage of using government expenditure cuts to fight inflation is that it can be wasteful to turn spending on and off depending on whether or not inflation is a concern.
CONSTRUCTION STOPPED TO FIGHT INFLATION
For this reason, monetary policy has become the major weapon against inflation.
MORNING STAR
FED WEIGHS MOVE AGAINST INFLATION

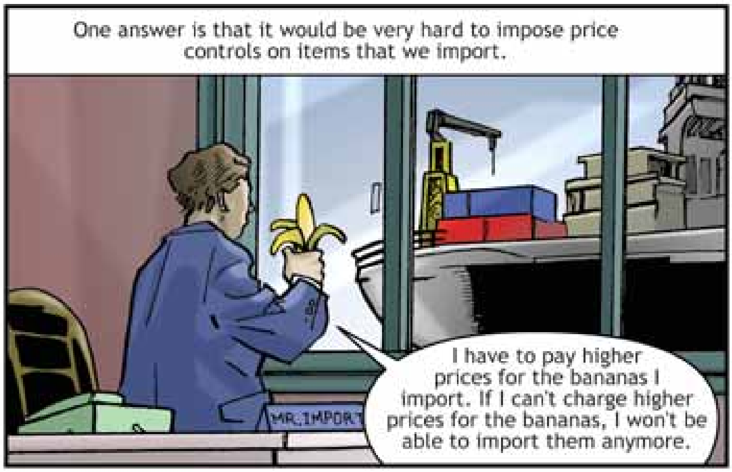

The changes in monetary policy that sometimes are needed to reduce inflation can impose some short-term pain on the economy. For example, to get rid of very rapid inflation in the early 1980s, the Fed had to accept a severe recession in 1981-1982.
STORE 1981
STORE 1982
CLOSED DUE TO RECESSION
CLOSED DUE TO RECESSION


The moderation of inflation set the stage for unusually long economic expansions since 1982.
CHANGES IN REAL GDP (1980-2005)
(% change)
8.0
6.0
4.0
2.0
0.0
-2.0
-4.0
1980
1985
1990
1995
2000
2005


Congress structured the Federal Reserve System to shelter it from day-to-day political pressures, so that the Fed could pursue policies that promote long-term economic growth, that might be unpopular.

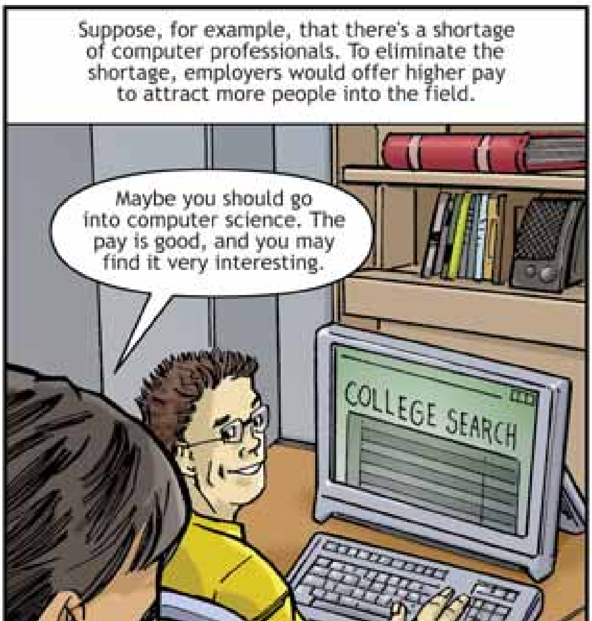

One factor supporting the Fed's independence is that unlike other government agencies, it does not depend on appropriations from Congress.
SENATE HEARING
I'm not happy with the Fed's current monetary policy, but the Fed doesn't come to us for appropriations, and so I can't use that influence to change its policy.

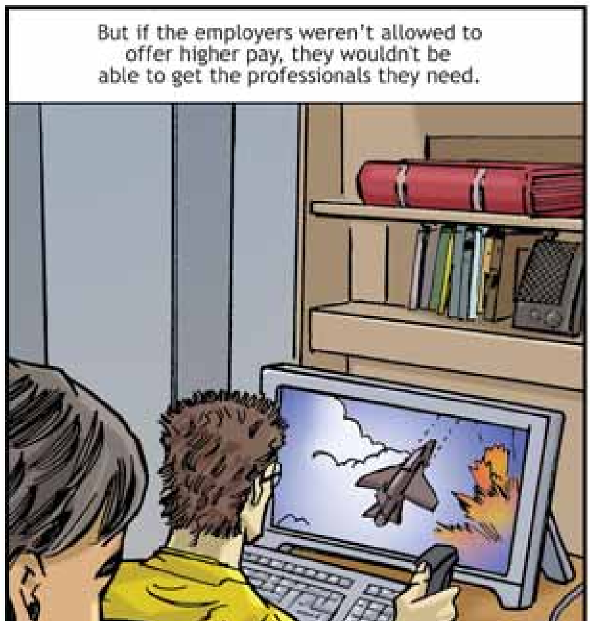


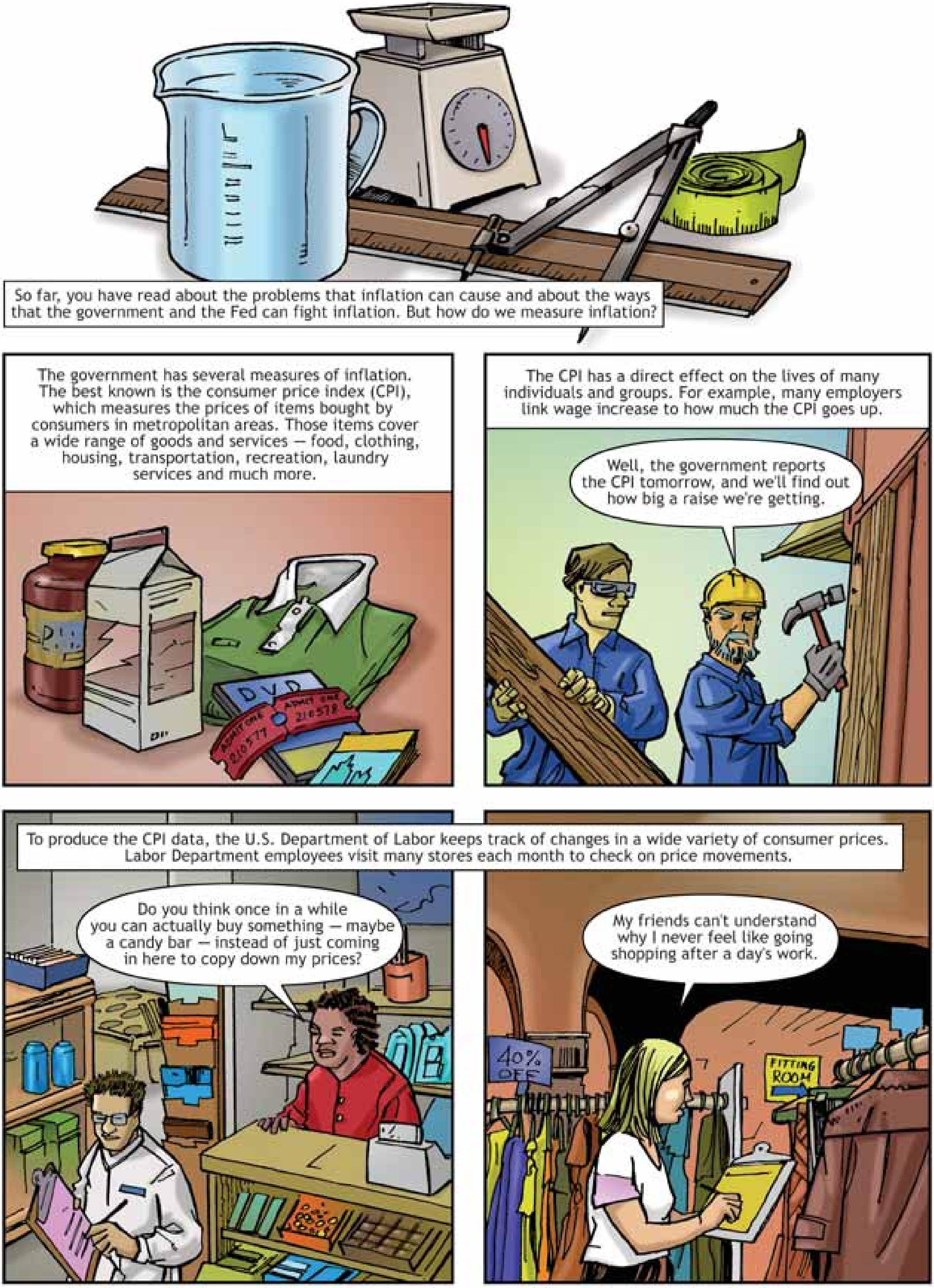


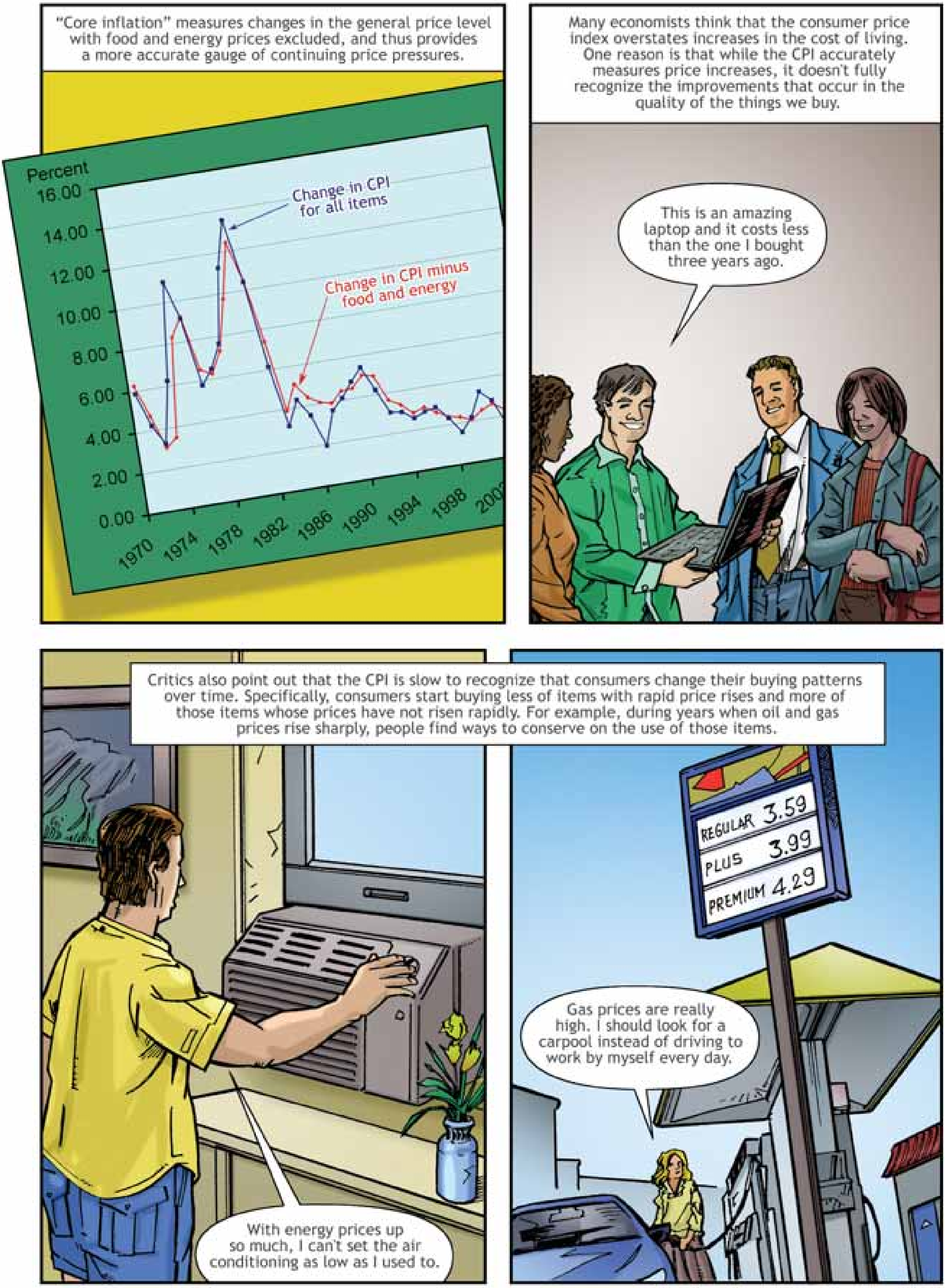
Also, price and wage controls are very hard to enforce because both buyers and sellers (in the case of price controls) and both employers and workers (in the case of wage controls) may wish to violate them.


In addition, changes in prices and wages perform a very important role in the economy — serving as signals to direct labor and other resources where they are needed.
MORNING NEWS
STRONG DEMAND PUSHES UP CAR PRIC
NEWS TIME
STRONG DEMAND PUSHES UP TEACHERS' PAY


Suppose, for example, that there's a shortage of computer professionals. To eliminate the shortage, employers would offer higher pay to attract more people into the field.
Maybe you should go into computer science. The pay is good, and you may find it very interesting.
COLLEGE SEARCH
SHORTAGE OF PROFESSIONALS RAISES PAY IN COMPUTER FIELD

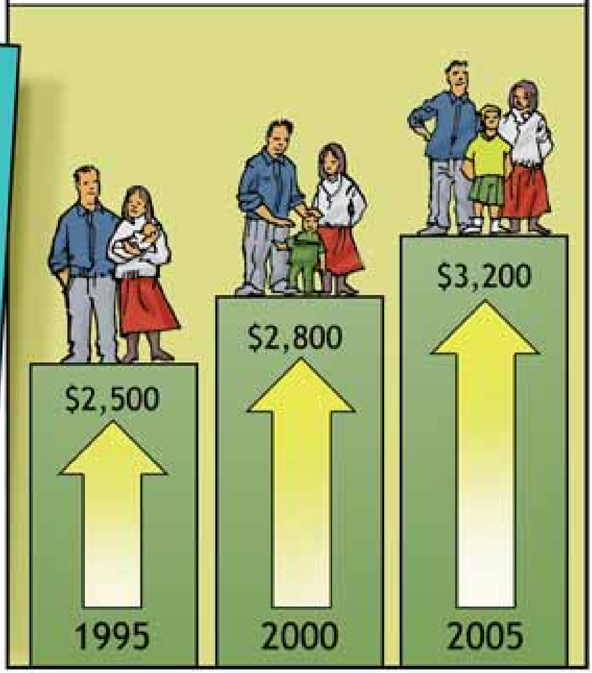

But if the employers weren't allowed to offer higher pay, they wouldn't be able to get the professionals they need.
SURVEY FINDS EMPLOYERS OBEYING WAGE CONTROLS


So far, you have read about the problems that inflation can cause and about the ways that the government and the Fed can fight inflation. But how do we measure inflation?
The government has several measures of inflation. The best known is the consumer price index (CPI), which measures the prices of items bought by consumers in metropolitan areas. Those items cover a wide range of goods and services — food, clothing, housing, transportation, recreation, laundry services and much more.
DVD
The CPI has a direct effect on the lives of many individuals and groups. For example, many employers link wage increase to how much the CPI goes up.
Well, the government reports the CPI tomorrow, and we'll find out how big a raise we're getting.
To produce the CPI data, the U.S. Department of Labor keeps track of changes in a wide variety of consumer prices. Labor Department employees visit many stores each month to check on price movements.
Do you think once in a while you can actually buy something — maybe a candy bar — instead of just coming in here to copy down my prices?
My friends can't understand why I never feel like going shopping after a day's work.
40% OFF
FITTING ROOM


"Core inflation" measures changes in the general price level with food and energy prices excluded, and thus provides a more accurate gauge of continuing price pressures.
Percent
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
1970
1974
1978
1982
1986
1990
1994
1998
Change in CPI for all items
Change in CPI minus food and energy
Many economists think that the consumer price index overstates increases in the cost of living. One reason is that while the CPI accurately measures price increases, it doesn't fully recognize the improvements that occur in the quality of the things we buy.
This is an amazing laptop and it costs less than the one I bought three years ago.
Critics also point out that the CPI is slow to recognize that consumers change their buying patterns over time. Specifically, consumers start buying less of items with rapid price rises and more of those items whose prices have not risen rapidly. For example, during years when oil and gas prices rise sharply, people find ways to conserve on the use of those items.
With energy prices up so much, I can't set the air conditioning as low as I used to.
REGULAR 3.59
PLUS 3.99
PREMIUM 4.29
Gas prices are really high. I should look for a carpool instead of driving to work by myself every day.

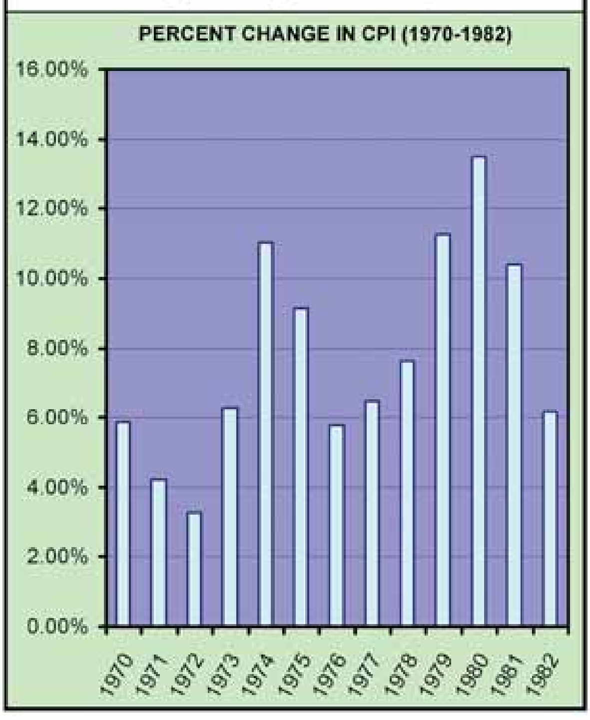
The accuracy with which the CPI measures inflation has a significant effect on the budget of the federal government. That's because certain benefits, such as social security, are based on how much the CPI rises.

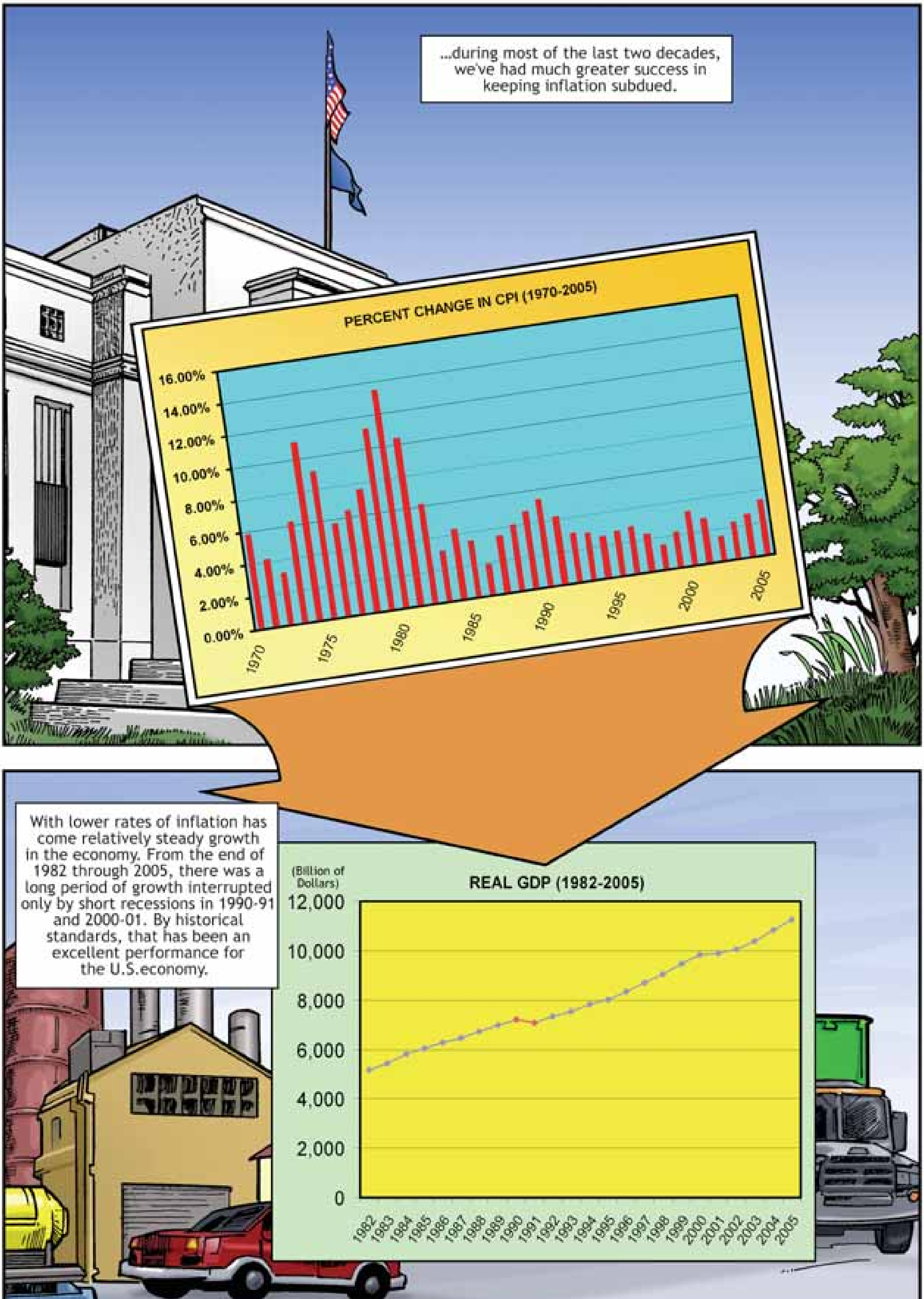
The CPI also affects the revenue side of the federal budget. For example, the personal exemption under the income tax — the amount of tax-free income per person to which a family is entitled — increases each year, based on the increase in the CPI.



If the CPI overstates inflation, then the personal exemption increases too much each year, and the federal government loses tax revenue as a result.

Whatever its imperfection, the CPI remains the most commonly used inflation measure. What does the CPI tell us about how well the United States has managed to control inflation? In the 1970s and early 1980s, as we saw earlier, inflation was often very rapid, even reaching double-digit annual rates, but...




...during most of the last two decades, we've had much greater success in keeping inflation subdued.
PERCENT CHANGE IN CPI (1970-2005)
16.00%
14.00%
12.00%
10.00%
8.00%
6.00%
4.00%
2.00%
0.00%
1970
1975
1980
1985
1990
1995
2000
2005
With lower rates of inflation has come relatively steady growth in the economy. From the end of 1982 through 2005, there was a long period of growth interrupted only by short recessions in 1990-91 and 2000-01. By historical standards, that has been an excellent performance for the U.S.economy.
(Billion of Dollars)
REAL GDP (1982-2005)
12,000
10,000
8,000
6,000
4,000
2,000
0
1982
1983
1984
1985
1986
1987
1988
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1991
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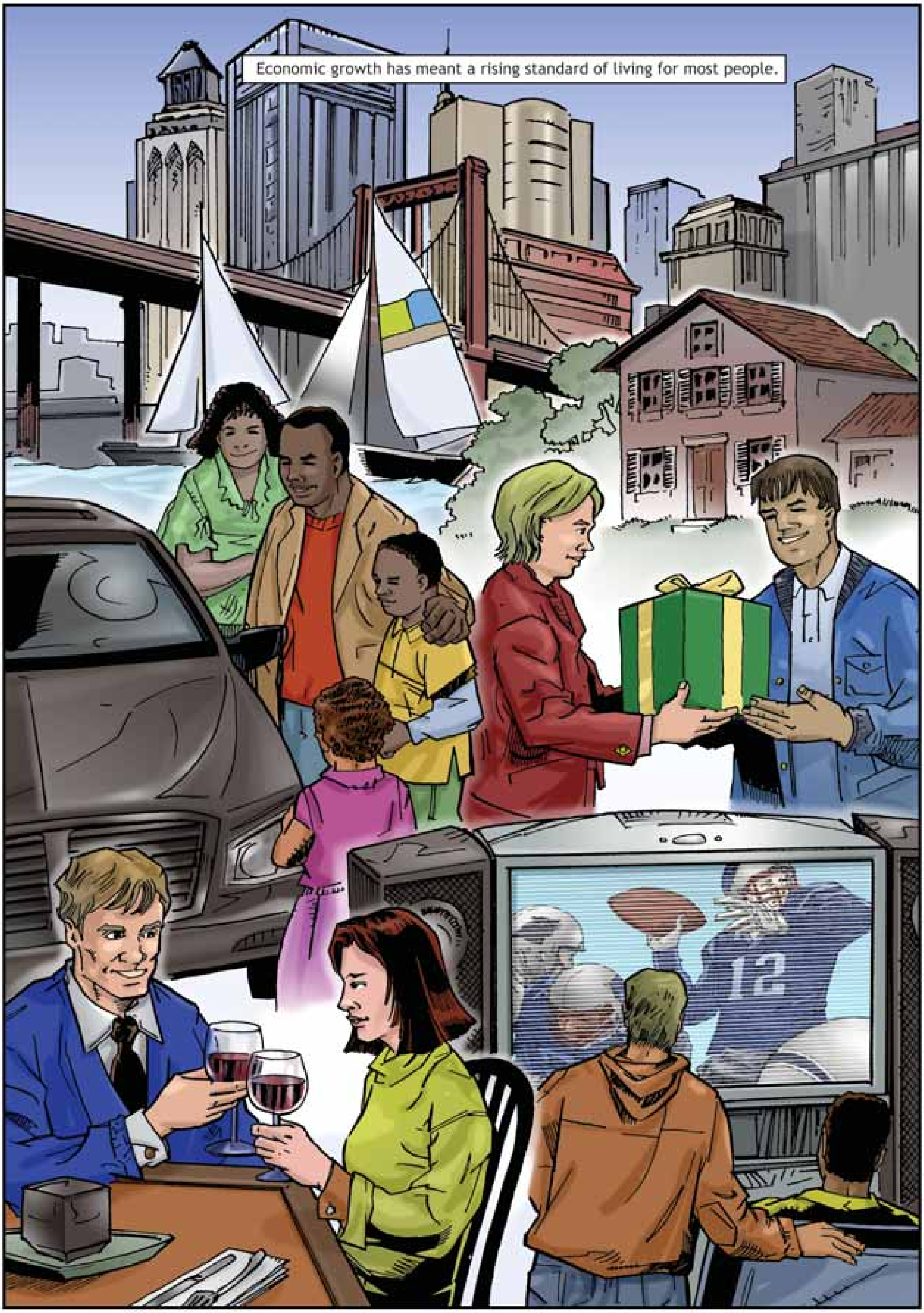
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005


Economic growth has meant a rising standard of living for most people.
12

"The Story of Inflation" uses everyday language and lively illustrations to explain:

- how inflation is defined,
- what causes inflation,
- the effects of inflation on individuals and the economy,
- how inflation is measured, and
- how to prevent inflation.

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