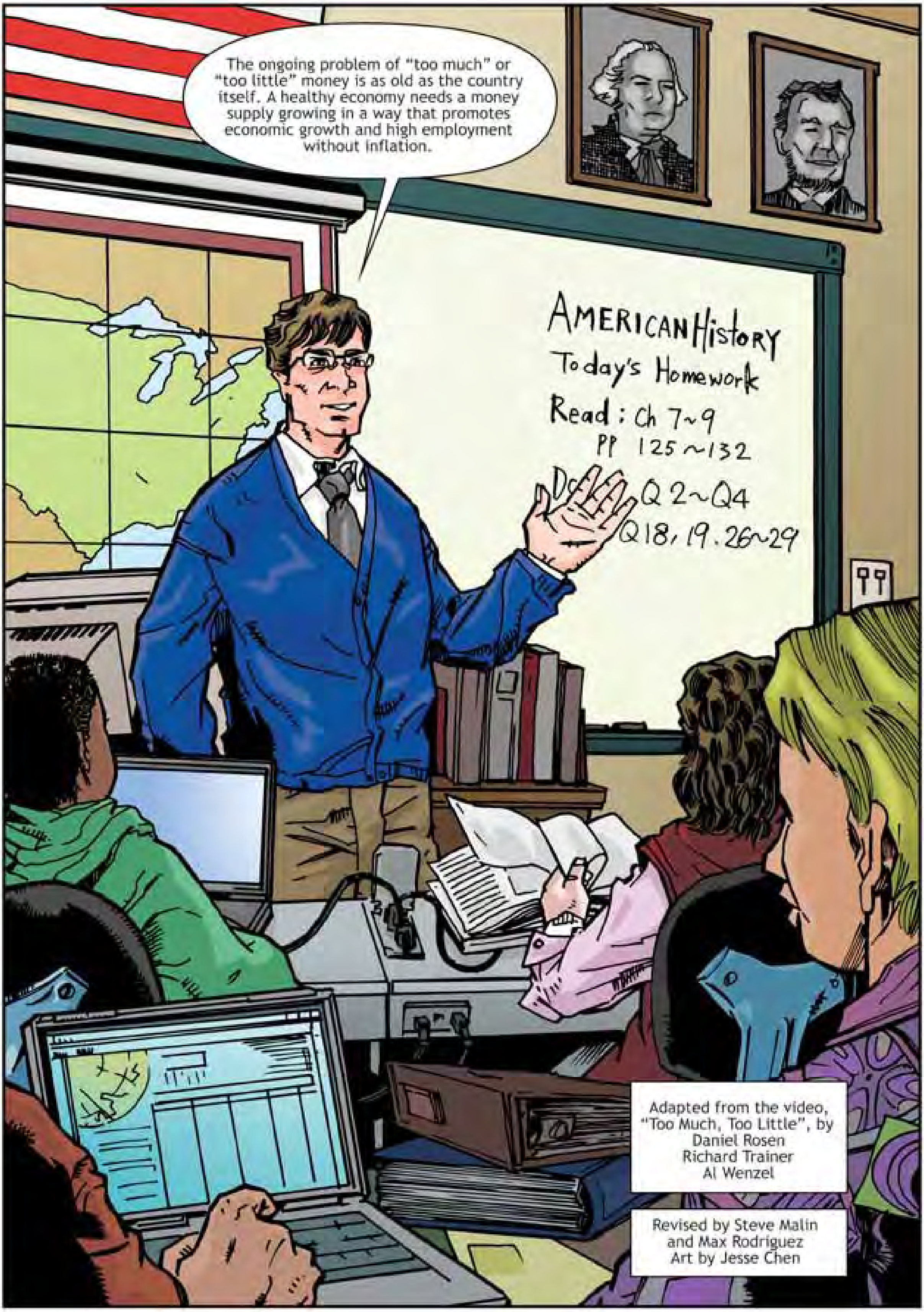
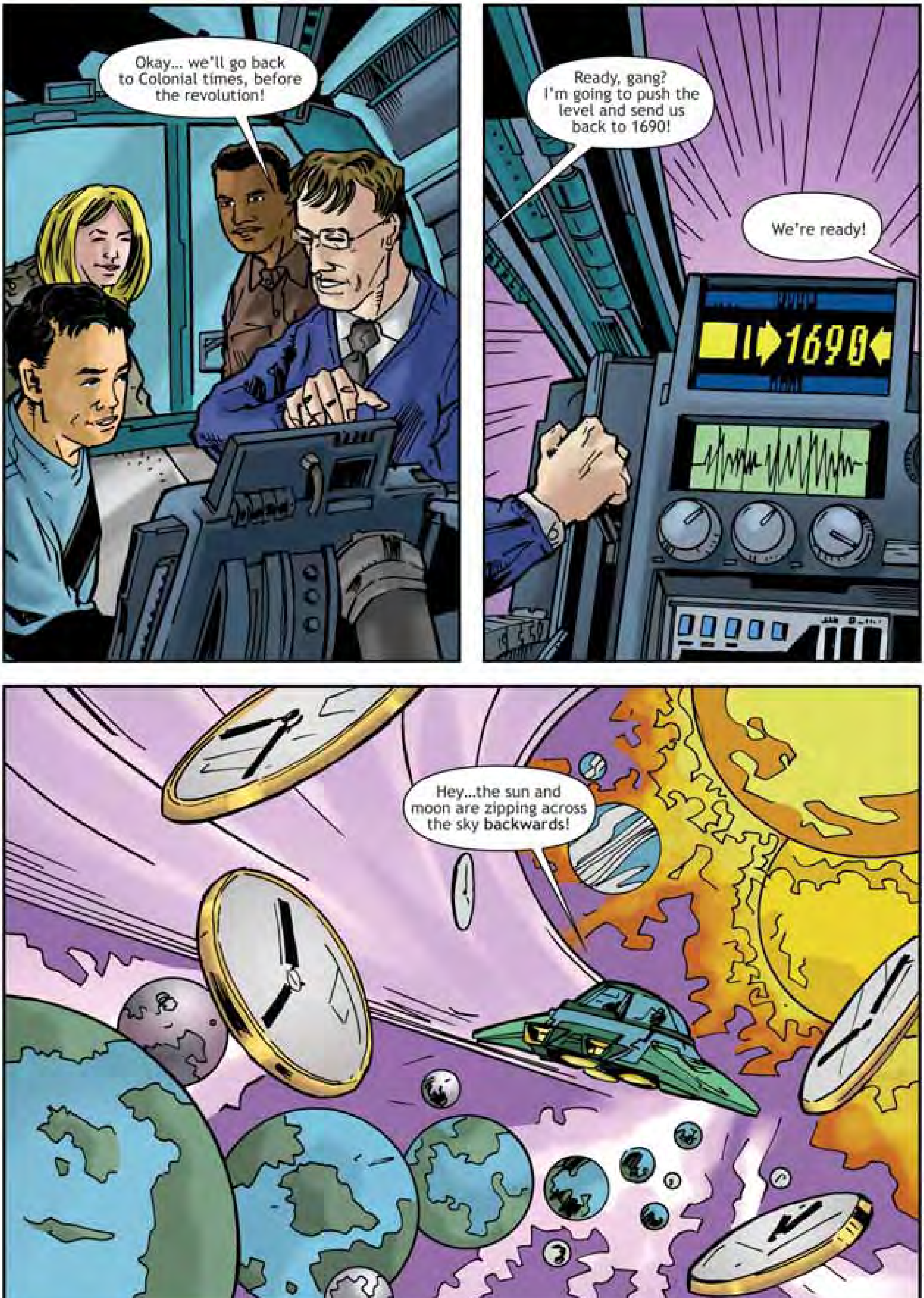
TOO MUCH, TOO LITTLE



The ongoing problem of "too much" or "too little" money is as old as the country itself. A healthy economy needs a money supply growing in a way that promotes economic growth and high employment without inflation.
AMERICAN History
Today's Homework
Read: Ch 7~9
PP 125~132
Q 2~Q4
Q18, 19, 26~29
Adapted from the video, "Too Much, Too Little", by
Daniel Rosen
Richard Trainer
Al Wenzel
Revised by Steve Malin
and Max Rodriguez
Art by Jesse Chen


NOW SHOWING
BACK TO THE FUTURE
TIME MACHINE
SCI-FI WEEKEND SPECIAL
Wow, that was a super movie, Mr. Allen.
Yeah! Thanks for taking us, Dad.
My pleasure, guys! Let's go for a soda!
I'd like to, Mr. Allen, but I've got to do a paper for my economics course.
Me, too! We're studying the Federal Reserve System.
Dad, I told you I have to write a report on it.
There's certainly a lot to write about. I teach about the Federal Reserve in my history course. Maybe I can help.
Okay.
But it better be quick.


This is just what I needed.
Yeah! Now... exactly what is your **assignment**?
Well, we're studying how and why the Federal Reserve System developed.
...and just what its role is in our economy!
Hmm... well, that's quite a story. Actually, it goes all the way back to Colonial America ...before the revolution.
Too bad we don't have a time machine like the one we saw in the movie.
Say, that's not a bad idea! Let's imagine our booth is a **time machine**! We could go back in time and **see** how it all began.
Hey, that's **great**!
All right. We're sitting in the time machine... here's the control panel!
Yeah! Look at all those dials!
And flashing lights!



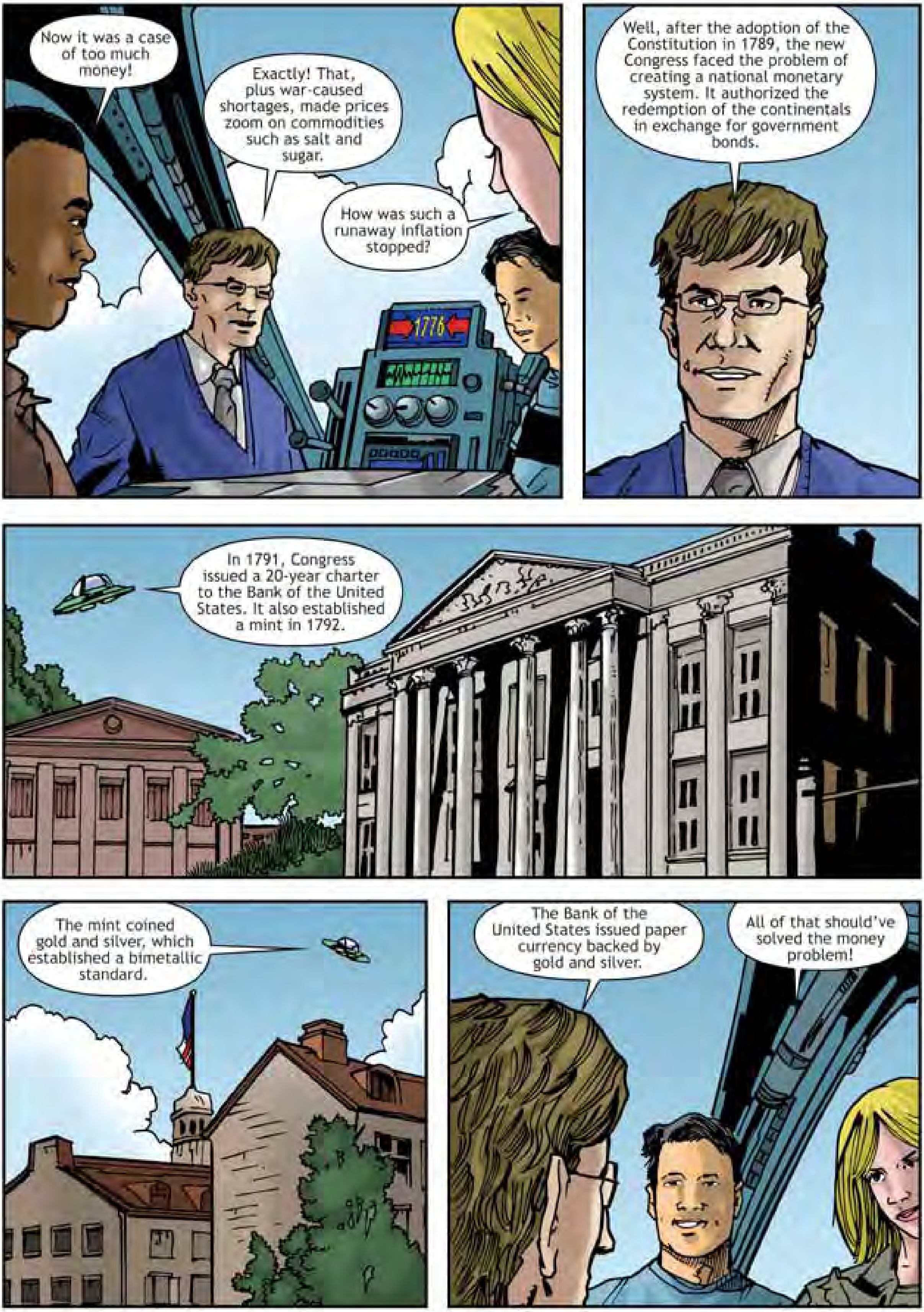
Okay... we'll go back to Colonial times, before the revolution!
Ready, gang? I'm going to push the level and send us back to 1690!
We're ready!
1690
Hey...the sun and moon are zipping across the sky **backwards**!


Wow! Everything's a blur outside.
We just passed 1860! That's before the Civil War.
Now it's 1760.
That's before the Revolution.
Yes, and we're beginning to slow down!
We're hovering over a clearing. The dial says it's 1690.
I wonder where we are?
Probably somewhere over Virginia. I see people down there. Let's see what's going on.
This is like being in a flying saucer.
Won't we scare them?
No...we can see them, but they can't see us.
What are they doing, Mr. Allen?
Looks like they're trading. Let's listen in.
I'll give you two knives for ten beaver skins.
No! Ten skins are worth two knives, one ax, and one bale of tobacco.

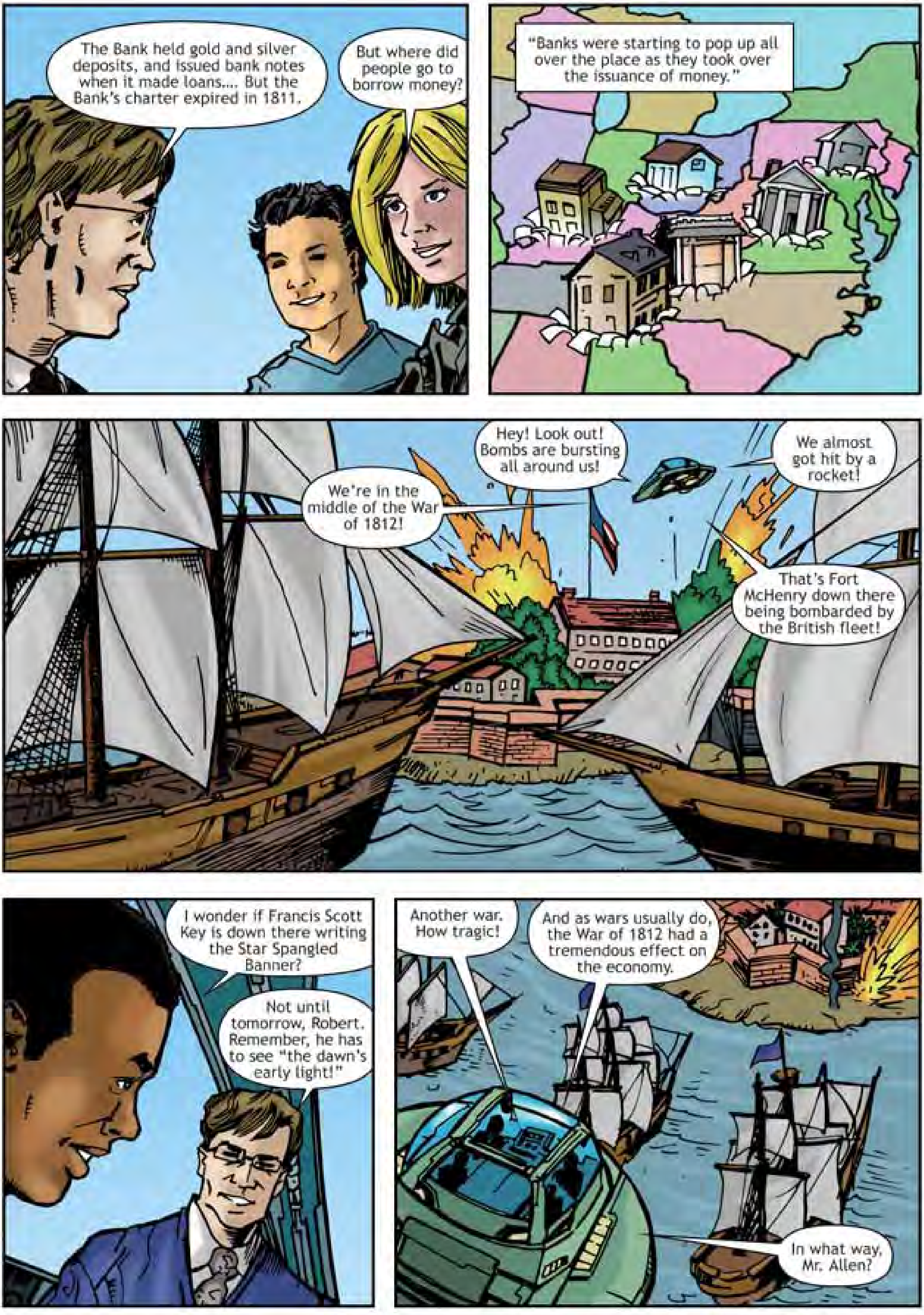

They seem to be having trouble reaching an agreement, Mr. Allen.
That's one of the drawbacks of a barter system, Robert. Money as we know it today was practically non-existent in Colonial America.
The early colonists occasionally used the coin or currency of other nations, such as "pieces of eight" or "Spanish dollars." But barter was more usual… and it seriously limited the amount of economic activity that could take place.
Why is that, Mr. Allen?
Directly exchanging goods and services instead of using money is difficult.
"Finding a trader who wants what you have can be very difficult. For example, if you can't find someone interested and you have food to trade, it might spoil; and if you're trading cows, how do you make change?"
Did they move from barter right into today's money?
No. Money started to develop when people began to find that using such things as tobacco and animal skins as a medium of exchange didn't work very well.
Why not?
Well, suppose people were using tobacco as money, and the usual rate was 5 bales of tobacco for one plow. What do you think would happen if there was a huge tobacco harvest?

Let's see! With lots of tobacco, that means there'd be lots of money...
...and lots of spending with people buying up as much as they could. I guess that would cause prices to sky-rocket.
"So there was always a danger in using a commodity as money because its supply could change suddenly."
WELCOME TO NEW CONTINENT TRADING POST
PLOWS @ 10 ~~5~~ BALES TOBACCO
What about this? Why didn't they use this stuff?
They did — occasionally. When goods were sold to foreigners, they paid with their own monies. Remember that rare coin that Aunt Clara has?
Sure, dad! That's a **beautiful** old coin!
Why didn't the colonists produce their own money, Mr. Allen?
Some did, even though it was against British law. Let's move on in time and see how England's refusal to let the colonies print and mint their own money contributed to the Revolution.
Let's stop and see what it was like in 1776.
Okay!

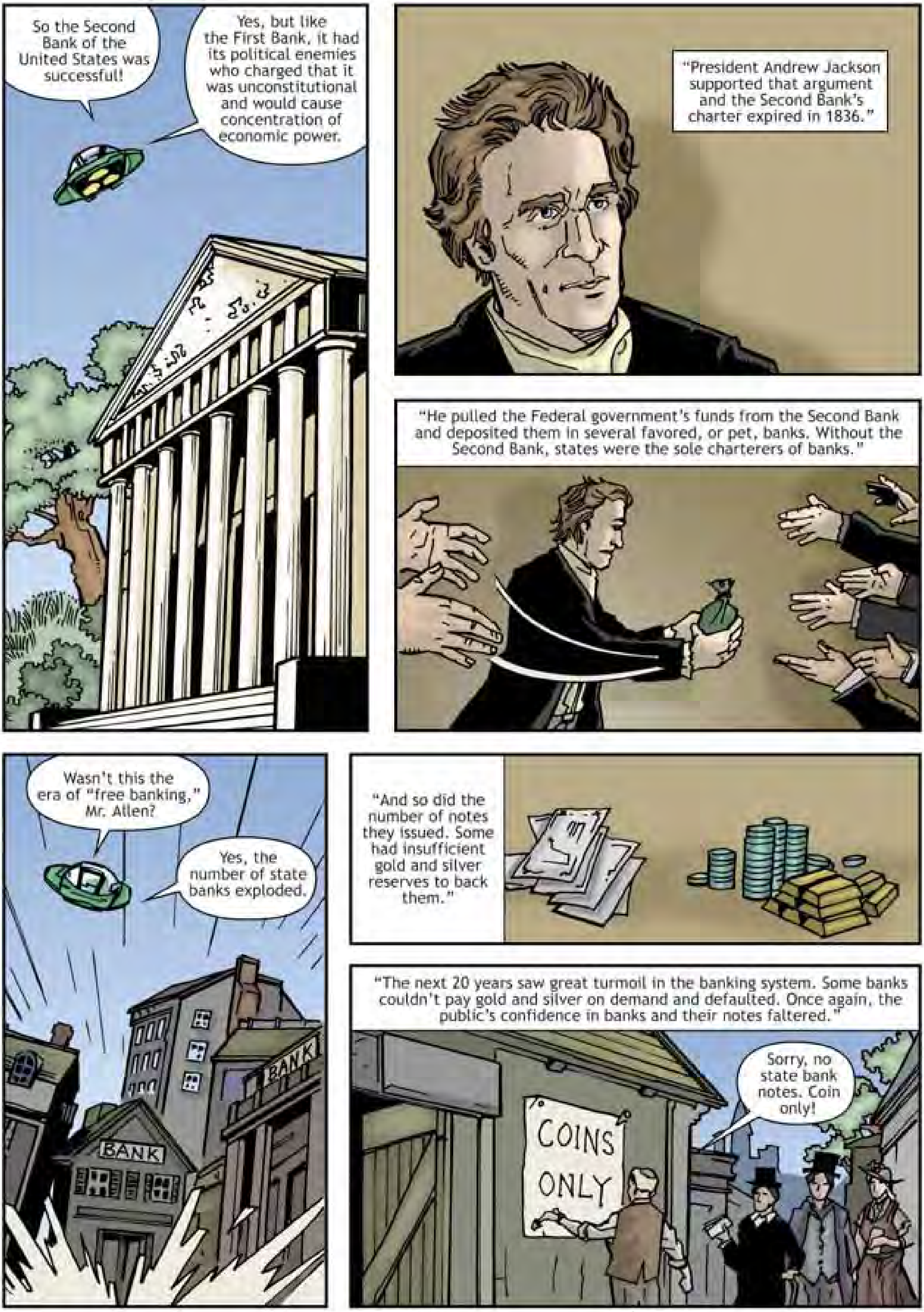

The war has started!
Yes...and the new government has the problem of financing the war.
INDEPENDENCE DECLARED!
How could it without enough money, Mr. Allen?
Well, it wasn't easy... The Continental Congress could not collect taxes. The thirteen colonies reserved that right, so the Congress borrowed money, especially from the French and Dutch.
The Continental Congress authorized the printing of paper money, called "continentals."
Look! There's a battle going on down there!
I bet that's Bunker Hill!
Alright! The surrender at Yorktown!
The war's over, Mr. Allen!
Yes, but it was very costly in lives and money! The government issued excessive amounts of continentals, causing a sharp inflation. By 1779, a continental was worth only two cents!... "Not worth a continental" was the expression of the day.


Now it was a case of too much money!
Exactly! That, plus war-caused shortages, made prices zoom on commodities such as salt and sugar.
How was such a runaway inflation stopped?
1776
Well, after the adoption of the Constitution in 1789, the new Congress faced the problem of creating a national monetary system. It authorized the redemption of the continentals in exchange for government bonds.
In 1791, Congress issued a 20-year charter to the Bank of the United States. It also established a mint in 1792.
The mint coined gold and silver, which established a bimetallic standard.
The Bank of the United States issued paper currency backed by gold and silver.
All of that should've solved the money problem!


"At first it worked. But a few years later the market price of silver dropped because so much was mined, and as the value of silver dropped, it bought fewer commodities, including gold."
The less valuable silver coins were increasingly used and the more valuable gold was driven from circulation.
That's Gresham's Law!
Hmm, I see... the bimetallic standard became a single silver standard!
With only silver in circulation, and silver buying less, there was too little money and the economy contracted.
It certainly was a problem to find the right balance between "too little" and "too much."
Maintaining a healthy economy without causing inflation or recession is still the most difficult problem monetary authorities have to deal with.
What about the First Bank of the United States? Wasn't there anything it could do to solve the problem?
The bank was a step in the right direction.


The Bank held gold and silver deposits, and issued bank notes when it made loans.... But the Bank's charter expired in 1811.
But where did people go to borrow money?
"Banks were starting to pop up all over the place as they took over the issuance of money."
Hey! Look out! Bombs are bursting all around us!
We almost got hit by a rocket!
We're in the middle of the War of 1812!
That's Fort McHenry down there being bombarded by the British fleet!
I wonder if Francis Scott Key is down there writing the Star Spangled Banner?
Not until tomorrow, Robert. Remember, he has to see "the dawn's early light!"
Another war. How tragic!
And as wars usually do, the War of 1812 had a tremendous effect on the economy.
In what way, Mr. Allen?

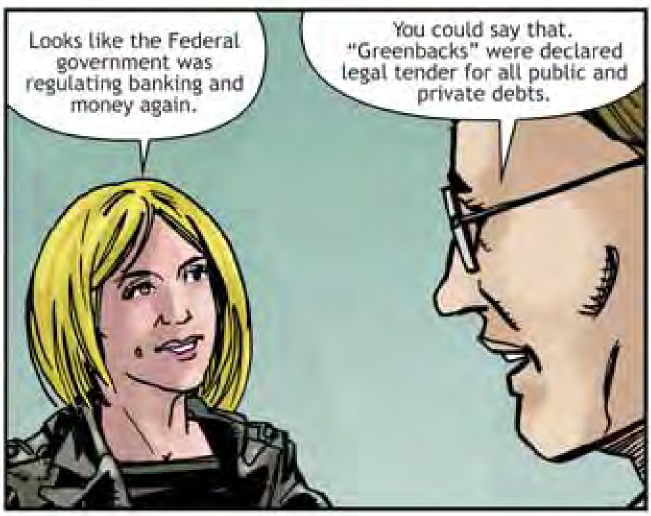

The borrowing needs of the Federal government to finance the war once more spurred the growth of state chartered banks.
I guess bank notes were coming out of the woodwork!
Right! And some banks issued more notes than were backed by their gold and silver reserves.
With wartime shortages and too much money, prices took off. By the end of the war, the economy and the banking system were near collapse.
In an effort to restore confidence in the banking system, Congress, in 1816, issued a 20-year charter to the Second Bank of the United States.
That seems like a good move.
"Yes, it was! It restored confidence in banks by being very strict about gold and silver reserves. When the Second Bank collected tax payments for the government, it accepted only bank notes that could be exchanged for gold and silver."
And this solved the over-issuance problem?
To a large extent.

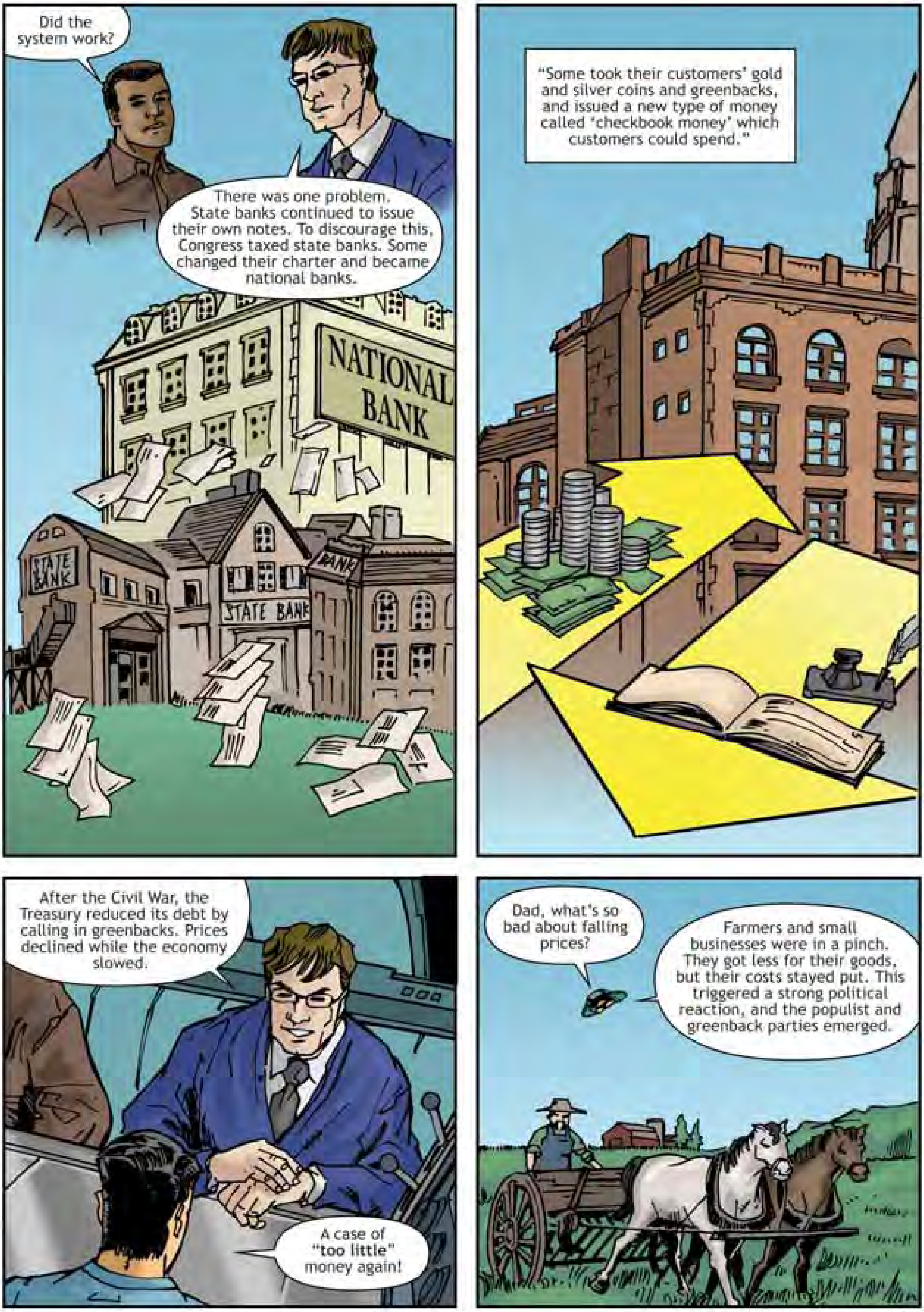

So the Second Bank of the United States was successful!
Yes, but like the First Bank, it had its political enemies who charged that it was unconstitutional and would cause concentration of economic power.
"President Andrew Jackson supported that argument and the Second Bank's charter expired in 1836."
"He pulled the Federal government's funds from the Second Bank and deposited them in several favored, or pet, banks. Without the Second Bank, states were the sole charterers of banks."
Wasn't this the era of "free banking," Mr. Allen?
Yes, the number of state banks exploded.
BANK
BANK
"And so did the number of notes they issued. Some had insufficient gold and silver reserves to back them."
"The next 20 years saw great turmoil in the banking system. Some banks couldn't pay gold and silver on demand and defaulted. Once again, the public's confidence in banks and their notes faltered."
COINS ONLY
Sorry, no state bank notes. Coin only!

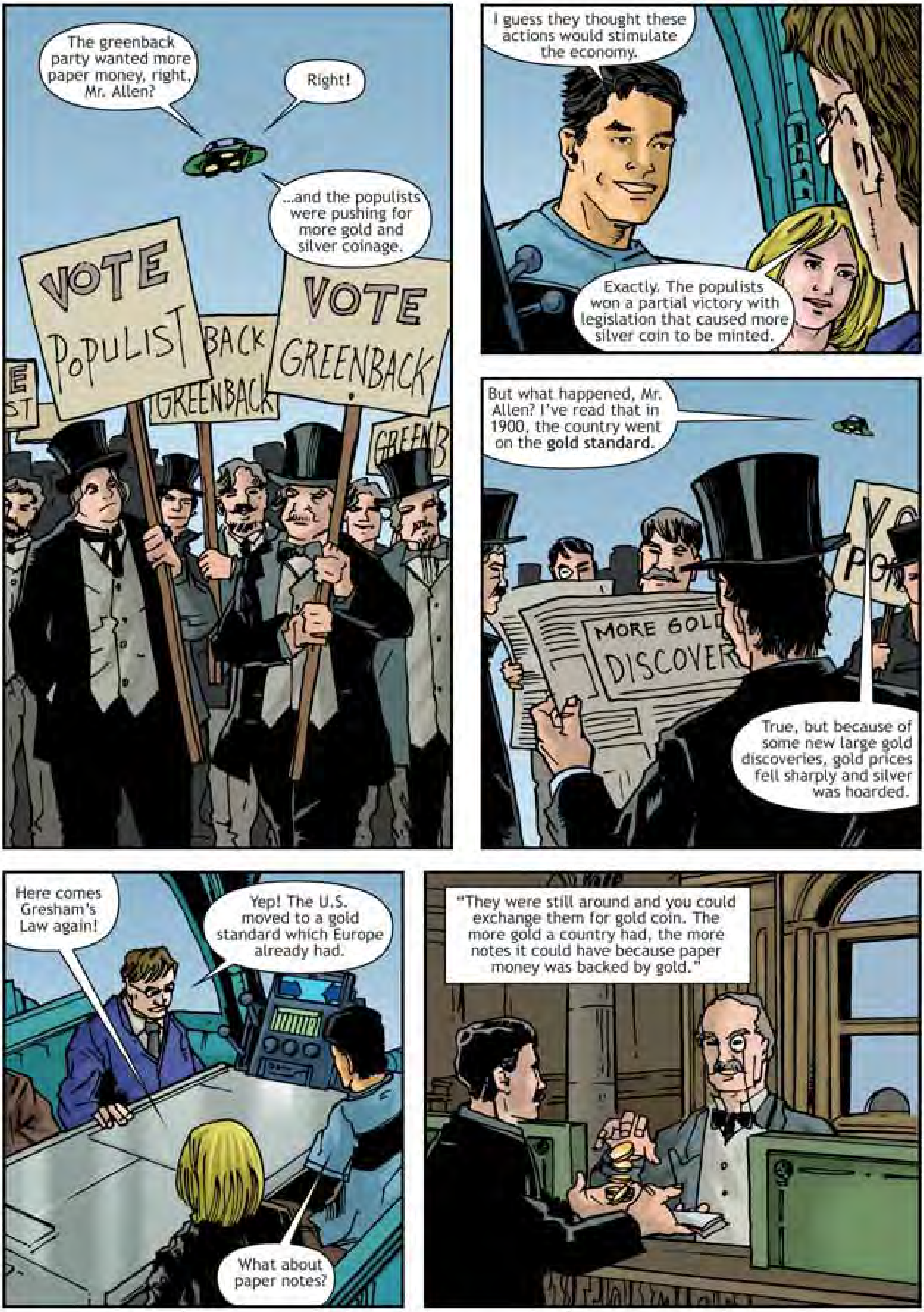

They're firing on Fort Sumter! It's 1861 and the Civil War is starting.
Another war! That will shake up the economy!


"It sure did! The government couldn't pay for the war with taxes alone. It had to borrow by selling bonds to state chartered banks."
BOND
STATE BANK
STATE BANK
STATE BANK


So the banks paid with bank notes?
No, the government wouldn't accept them. It had just set up nationally chartered banks to achieve a uniform currency. They issued different notes called "greenbacks" that were not redeemable in gold or silver. Banks used them to pay for the bonds.


Looks like the Federal government was regulating banking and money again.
You could say that. "Greenbacks" were declared legal tender for all public and private debts.


Did the system work?
There was one problem. State banks continued to issue their own notes. To discourage this, Congress taxed state banks. Some changed their charter and became national banks.
NATIONAL BANK
STATE BANK
STATE BANK
BANK
"Some took their customers' gold and silver coins and greenbacks, and issued a new type of money called 'checkbook money' which customers could spend."
After the Civil War, the Treasury reduced its debt by calling in greenbacks. Prices declined while the economy slowed.
A case of "too little" money again!
Dad, what's so bad about falling prices?
Farmers and small businesses were in a pinch. They got less for their goods, but their costs stayed put. This triggered a strong political reaction, and the populist and greenback parties emerged.



The greenback party wanted more paper money, right, Mr. Allen?
Right!
...and the populists were pushing for more gold and silver coinage.
VOTE POPULIST
BACK GREENBACK
VOTE GREENBACK
I guess they thought these actions would stimulate the economy.
Exactly. The populists won a partial victory with legislation that caused more silver coin to be minted.
But what happened, Mr. Allen? I've read that in 1900, the country went on the **gold standard**.
MORE GOLD
DISCOVER
True, but because of some new large gold discoveries, gold prices fell sharply and silver was hoarded.
Here comes Gresham's Law again!
Yep! The U.S. moved to a gold standard which Europe already had.
What about paper notes?
"They were still around and you could exchange them for gold coin. The more gold a country had, the more notes it could have because paper money was backed by gold."

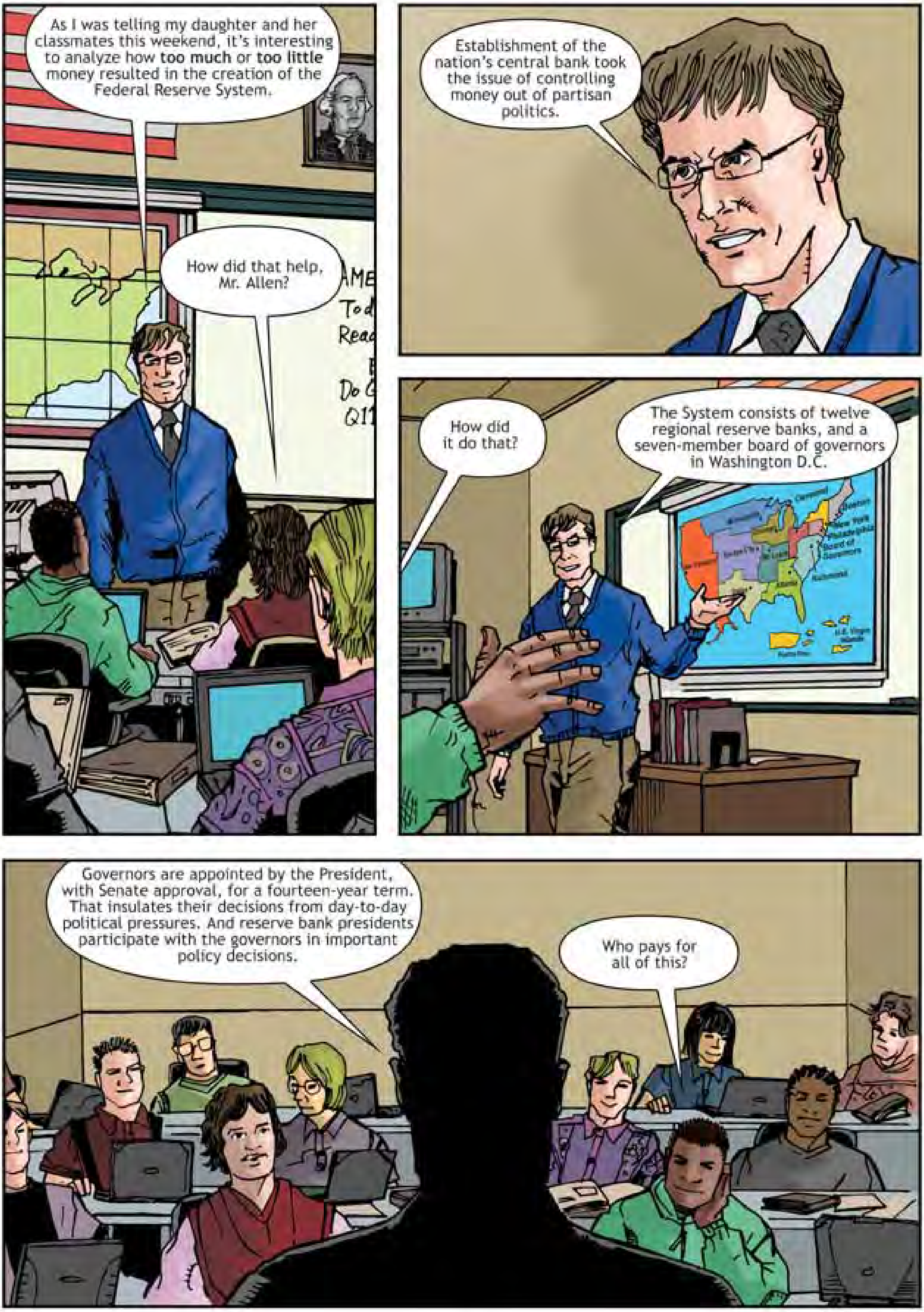

How did we pay for things we bought from Europe?
I'll bet we used gold!
You've got it! And if we sold more to foreigners than we bought from them, we got more gold, money expanded and...


...prices shot up!
And when we bought more than we sold, we paid out gold, and the money supply and the economy contracted.
The banking system must have bounced around.


"It sure did! When we lost gold, people rushed to their banks to get their money. Banks failed, the economy suffered and panic developed. International gold flows helped trigger a severe banking panic in 1907."
I want my money!
Me, too!

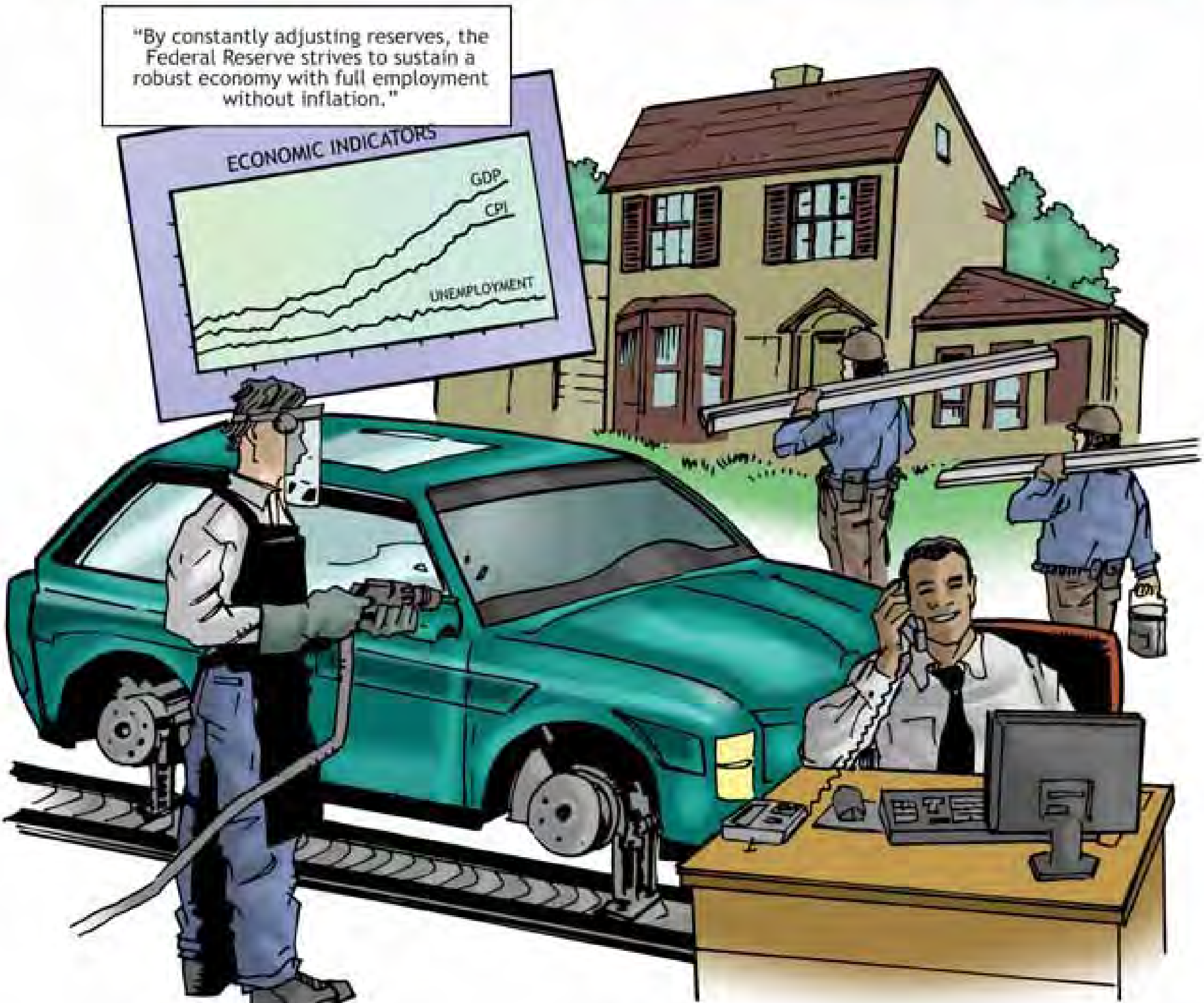

"The panic shocked Congress into studying the banking and economic systems. This resulted in the Federal Reserve Act, which President Wilson signed into law in 1913."

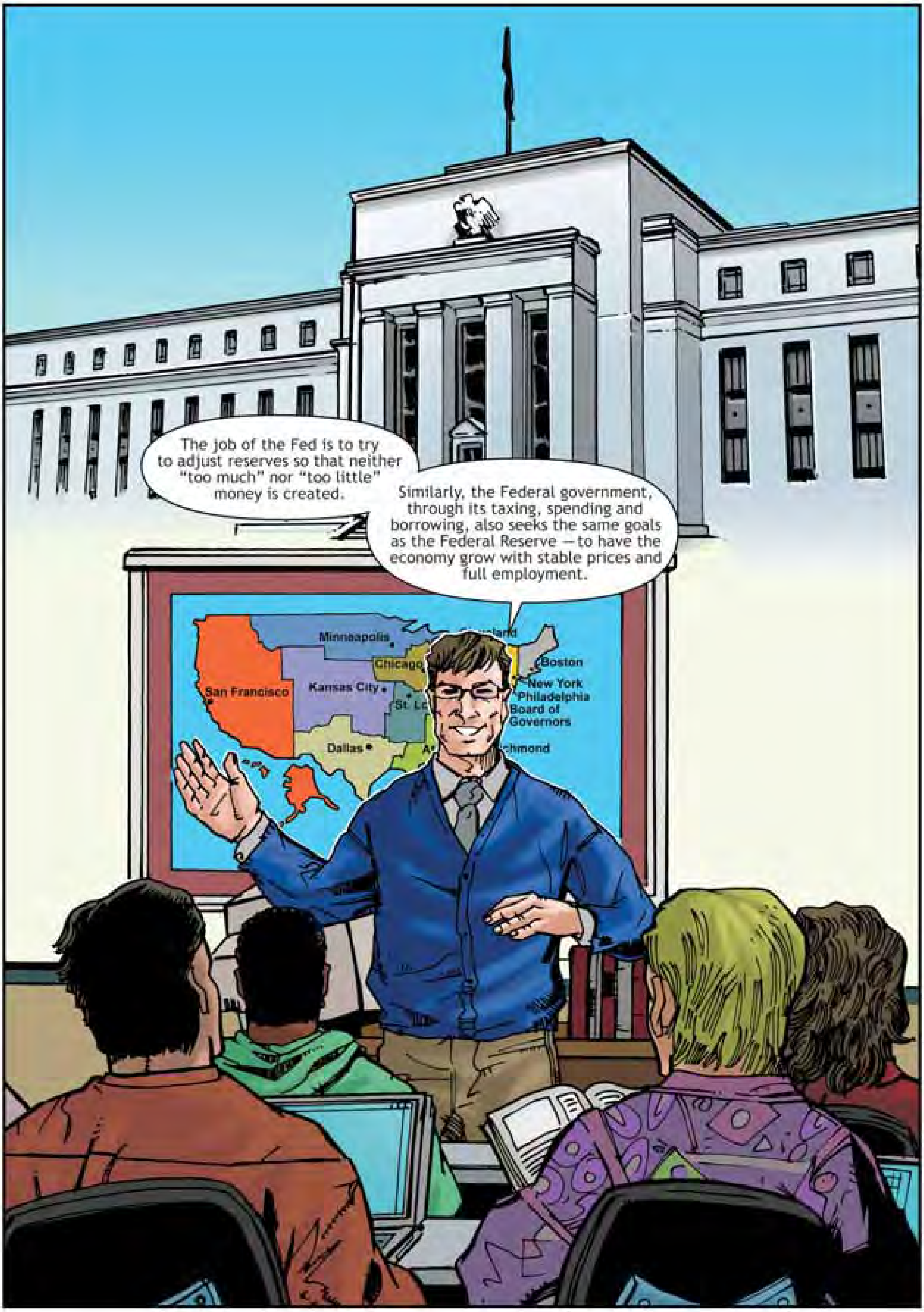

Well, gang, let's get our time machine back to the present!
I'm ready!
Me, too!
Okay, I've set the time and date. Hold on, here we...
Gooooooooo!
Wow, that was a great trip! Thanks a lot, Mr. Allen!
I enjoyed it, too. But now we'd better get going. You've got to get those reports done!
It'll be easy now! I never knew homework could be such a trip!


As I was telling my daughter and her classmates this weekend, it's interesting to analyze how **too much** or **too little** money resulted in the creation of the Federal Reserve System.
How did that help, Mr. Allen?
Establishment of the nation's central bank took the issue of controlling money out of partisan politics.
How did it do that?
The System consists of twelve regional reserve banks, and a seven-member board of governors in Washington D.C.
Governors are appointed by the President, with Senate approval, for a fourteen-year term. That insulates their decisions from day-to-day political pressures. And reserve bank presidents participate with the governors in important policy decisions.
Who pays for all of this?

The Fed gets its revenue from the interest it earns on government securities it owns. It is not funded by Congress.
So that must give the Federal Reserve some independence.
Just how does the Federal Reserve control money?
Today, the Federal Reserve influences money creation by controlling bank reserves.
Just what are reserves?
They are cash in banks' vaults and banks' required balances at Federal Reserve banks.
"Most of today's money is in the form of deposits — like the checking accounts folks have."
ACCOUNT STATEMENT
And the rest of it is this.
So the economy runs smoothly now?
Certainly better than before.


"As you history students know, there were some very difficult economic times since the Fed was established, such as the Great Depression of the 1930's and various wars. These times simply overwhelmed the Federal Reserve System's ability to keep the economy running smoothly. However, monetary policy is far better able to cope with economic difficulties now than before.
CLOSED
NOTICE
APPLE ¢5/lb
PLEASE GIVE MY DAD A JOB


"By constantly adjusting reserves, the Federal Reserve strives to sustain a robust economy with full employment without inflation."
ECONOMIC INDICATORS
GDP
CPI
UNEMPLOYMENT


The job of the Fed is to try to adjust reserves so that neither "too much" nor "too little" money is created.
Similarly, the Federal government, through its taxing, spending and borrowing, also seeks the same goals as the Federal Reserve —to have the economy grow with stable prices and full employment.
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