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Annenberg/CPB
Professional Development Workshop Guide

The Economics Classroom

A Workshop for Grade 9-12 Teachers

An eight-part professional development workshop
for high school economics teachers

**Produced by Pacific Street Film Projects, Inc.
in association with the National Council on Economic Education**

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About the Workshop

Overview

The Economics Classroom illustrates why economics is losing its reputation as "the dismal science." Instead, economics can become one of the most relevant and stimulating courses taken in high school.

These teacher development workshops are intended for high school teachers of economics, many of whom have little or no background in the subject, to help them learn effective lessons and techniques for bringing this important and often misunderstood subject to their students.

The workshop consists of eight two-hour sessions with hour-long videos, each on a different topic that is covered in most high school economics courses. The workshops are organized along broad subject lines, illustrating how economists think, how markets operate, and how and why the government participates in the economy. Watching real classroom lessons, you'll see students learning the basics of personal finance as well as a few things about wealth that they never knew before. Demonstrations and exercises designed by economic educators also cover the role of the entrepreneur and innovation in economic life, as well as the dynamics of international trade.

High school graduates will make economic choices all their lives in their roles as consumers, employees, entrepreneurs, savers, investors, and citizen voters. In the words of James Tobin, Nobel Laureate in Economics, "The case for economic literacy is obvious. High school graduates will be making economic choices all their lives, as breadwinners and consumers, and as citizens and voters. A wide range of people will bombard them with economic information and misinformation for their entire lives. They will need some capacity for critical judgment. They will need it whether or not they go to college." (Quoted in *The Wall Street Journal,* July 9, 1986.)

The eight programs in *The Economics Classroom* cover the content areas of a typical high school economics course, including scarcity, markets, supply and demand, competition and monopoly, personal finance, the role of government, measuring economic performance, monetary and fiscal policy, and economic growth. The programs also cover the content of the 20 *Voluntary National Content Standards in Economics.*

Most important, the lessons in *The Economics Classroom* show how to bring economic concepts alive in the classroom. The philosophy behind this workshop is that students learn by doing. According to a Chinese proverb, "I hear and I forget; I see and I remember; I do and I understand." When teachers and students approach the study of economics by doing something involving economic reasoning and economic behavior, they truly understand the ideas being taught and why those ideas are useful to them. Several of the lessons seen in the video programs appear in this workshop guide. Feel free to use them in your classroom.

The high school economics course should provide skills which will help high school graduates to compete in the global economy of the twenty-first century. *The Economics Classroom* provides a foundation to help teachers accomplish this important goal.

Workshop Format

Each workshop program is divided into several segments; each addresses a different aspect of a broad subject area and features actual in-classroom footage of teachers who are recognized for their skill in teaching economics. These classroom segments are accompanied by introductory and background information presented by Professor Timothy Taylor of Macalester College in Minneapolis, Minnesota, a leading economic educator and managing editor of the *Journal of Economic Perspectives.*

Each program also includes lesson plans and curriculum suggestions; interviews with teachers discussing their techniques, lesson plans, and pertinent experiences; and students reacting to the lessons in which they have just participated. Teachers and students comprise a diverse group in schools ranging from a private girls' school in suburban New Jersey to public schools in and outside of cities like Atlanta and Denver to honors classrooms in Hawaii and an urban high school in New York City. Teachers can follow links throughout the workshop Web site at www.learner.org/channel/workshops/economics to learn more about a particular subject, find additional lesson ideas and exercises, and obtain additional information on the teachers and classes featured in this workshop.

About the Workshop, cont'd.

Workshop Descriptions

Workshop 1. How Economists Think

This workshop illustrates why economics is much more than a bundle of concepts. Economics is a unique way of thinking that offers insights into the seemingly chaotic confusion of human behavior in a world of different values, resources, and cultures. In the video, teachers demonstrate the key ideas that constitute an economic way of thinking.

Workshop 2. How Markets Work

This workshop focuses on the laws of supply and demand and their effects on the allocation of resources. In the video, teachers use simulations and classroom demonstrations to illustrate the behavior behind supply and demand curves. They also demonstrate the importance of competition and the incentives created by profits.

Workshop 3. The Government's Hand

This workshop demonstrates the positive role of government in a market economy and also explores why well-meaning government policies can fail. A simulation dramatically demonstrates how protection of property rights conserves and develops resources. An "economic mystery" is used to illustrate public-choice theory while a simulation shows how price ceilings and floors cause unintended consequences.

Workshop 4. Learning, Earning, and Saving

Effective lessons to teach personal finance are demonstrated in this workshop. Teachers use the "Millionaire Game," the "Chessboard of Financial Life," and a stock market simulation to show how concepts such as earning a living, spending, saving, investing, borrowing, and managing money are taught in a high school economics course.

Workshop 5. Trading Globally

The positive effects of voluntary trade and the harmful effects of protectionism are shown dramatically in this program. A "label-search" activity, a discussion on the worldwide ingredients in a candy bar, and a "banana wars" simulation all demonstrate the benefits of trade and the unintended negative consequences of protectionist policies.

Workshop 6. The Building Blocks of Macroeconomics

This workshop illustrates activities that teach about the basic measurement tools of any economy: gross domestic product (GDP), unemployment, and inflation. These measurement tools can seem abstract, but GDP and economic growth, unemployment, and inflation can have a profound effect on students' future welfare, their job opportunities, the level of their prospective earnings, and the prices they will pay for the things they buy.

Workshop 7. Monetary and Fiscal Policy

Teachers use a lecture/discussion technique, demonstrations, and simulations to teach about the effects of monetary and fiscal policy on aggregate supply and aggregate demand. Students learn how government monetary and fiscal policies affect economic growth, unemployment, and inflation.

Workshop 8. Growth and Entrepreneurship

In the final workshop, students learn why the key to improving a nation's standard of living is economic growth. Teachers illustrate the important factors that contribute to economic growth and how a market economy creates incentives that encourage entrepreneurship, innovation, and investment. The role of patents and copyrights in creating incentives for entrepreneurs is also covered.

About the Workshop, cont'd.

About the Lessons

Each session includes two economics lessons. In many cases, a version of the lesson is demonstrated by a teacher in the workshop video. In all cases, the content of the lesson relates to the content of the video program. Teachers are free to copy and use these lessons in their classrooms.

This is just a sampling of the lessons available to high school economics teachers. These lessons utilize an active-learning approach. Most of the lessons in this guide were previously published by the National Council on Economic Education (NCEE). They are not in the exact format in which they were originally published. For information on the publications of NCEE, call toll-free 800-338-1192 to obtain a catalog or view the online catalog at www.ncee.net.

The following lessons appear in this guide.

Workshop 1. How Economists Think

The Tragedy of the Commons
by Mark C. Schug, from *The Great Economic Mysteries Book: A Guide to Teaching Economic Reasoning, Grades 9-12,* National Council on Economic Education, 2001.

Why Do People Trade?
by Gerald J. Lynch, Michael W. Watts, and Donald R. Wentworth, from *Focus: International Economics,* National Council on Economic Education, 1998.

Workshop 2. How Markets Work

A Classroom Market for Crude Oil
by Michael W. Watts, Sarapage McCorkle, Bonnie T. Meszaros, and Mark C. Schug, from *Focus: High School Economics,* National Council on Economic Education, 2001.

Shifts in Supply and Demand
by John S. Morton, from *Advanced Placement Economics: Microeconomics: Student Activities,* National Council on Economic Education, 1996. A new edition will be published in 2003.

Workshop 3. The Government's Hand

Property Rights Simulation
by John S. Morton.

Price Floors and Ceilings
by John S. Morton, from *Advanced Placement Economics: Microeconomics: Student Activities,* National Council on Economic Education, 1996.

Workshop 4. Learning, Earning, and Saving

How To Really Be a Millionaire
by John S. Morton and Mark C. Schug, from *Financial Fitness for Life: Bringing Home the Gold, Grades 9-12,* National Council on Economic Education, 2001.

The Chessboard of Financial Life
by John S. Morton and Mark C. Schug, from *Financial Fitness for Life: Bringing Home the Gold, Grades 9-12,* National Council on Economic Education, 2001.

About the Workshop, cont'd.

Workshop 5. Trading Globally

Working and Living Together: The Importance of Trade
by Harlan R. Day, from *Trading Around the World: Introducing Economics Into the Middle School Curriculum,* National Council on Economic Education, 1997.

The "Banana Wars" Lesson
by Elaine Schwartz.

Workshop 6. The Building Blocks of Macroeconomics

All About GDP
by John S. Morton, from *Advanced Placement Economics: Macroeconomics: Student Activities,* National Council on Economic Education, 1996.

Who Is Hurt and Who Is Helped by Inflation?
by John S. Morton, from *Advanced Placement Economics: Macroeconomics: Student Activities,* National Council on Economic Education, 1996.

Workshop 7. Monetary and Fiscal Policy

The Tools of Fiscal Policy
by John S. Morton, from *Advanced Placement Economics: Macroeconomics: Student Activities,* National Council on Economic Education, 1996.

Money, Interest, and Monetary Policy
by Michael W. Watts, Sarapage McCorkle, Bonnie T. Meszaros, and Mark C. Schug, from *Focus: High School Economics,* National Council on Economic Education, 2001.

Workshop 8. Growth and Entrepreneurship

Mystery Nations
by Jane Lopus, John S. Morton, Robert Reinke, Mark C. Schug, and Donald R. Wentworth, from *Capstone II,* National Council on Economic Education, to be published in 2003.

Can I Become an Entrepreneur?
by John E. Clow, Carolyn R. Holleran, Calvin A. Kent, Gary Rabbior, Francis W. Rushing, and Alan Stafford, from *Economics and Entrepreneurship,* National Council on Economic Education, 1993.

About the Workshop, cont'd.

About the Content

These workshops cover the 20 standards in the *Voluntary National Content Standards in Economics.* The standards covered by each workshop are listed below under the number of the workshop. Each standard is written in its entirety in the workshop chapter(s) in which it is covered.

A Correlation of the Workshop Programs to the Voluntary National Content Standards in Economics

	Workshops							
Standards	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1. Scarcity	X							
2. Marginal costs/marginal benefits	X			X				
3. Allocation of goods and services		X						
4. Role of incentives	X							
5. Gains from trade	X				X			
6. Specialization and trade					X			
7. Markets—price and quantity determination		X						
8. Role of price in market system		X						
9. Benefits of competition		X						
10. Role of economic institutions			X					
11. Role of money							X	
12. Role of interest rates							X	
13. Role of resources in determining income				X				
14. Profit and the entrepreneur		X						X
15. Growth								X
16. Role of government			X					
17. Costs of government policies			X					
18. Circular flow-interdependence						X	X	
19. Unemployment and inflation						X		
20. Monetary and fiscal policy							X	

From *Voluntary National Content Standards in Economics,* National Council on Economic Education, 1997.

About the Contributors

Project Director, Producers

Since the founding of Pacific Street Films (PSF) in 1969, **Steven Fischler** (project director and producer) and **Joel Sucher** (producer) have produced, directed, and written award-winning documentary films on a wide variety of historical, cultural, and political themes. Sucher and Fischler have been the recipients of numerous awards and grants, including Guggenheim Fellowships in Film, Emmy Awards, Cine Golden Eagles, and the John Grierson Award for Social Documentaries.

Fischler and Sucher have chronicled both overlooked historical movements (*Free Voice of Labor: The Jewish Anarchists and Anarchism in America*), and misunderstood ones (*Blue Helmets: The Story of United Nations Peacekeeping and In Search of Peace*). PSF produced a documentary on the forgotten story of how Jewish professors who had fled Nazi Germany ended up teaching at historically black colleges in the South, *From Swastika to Jim Crow,* which had its broadcast premiere on PBS in 2001. PSF also has produced long-form biographical sketches on Frankie Lymon (*I Promise to Remember,* 1983), directors Martin Scorsese (*Martin Scorsese Directs*) and Oliver Stone (*Oliver Stone: Inside/Out*). Fischler and Sucher have produced a 12-part telecourse/series, *Exploring the World of Music,* for Annenberg/CPB; a five-part series, *The Warrior Tradition,* and many other broadcast documentaries for both public and commercial television.

Coordinating Producer, Web Site Designer

Clark Bortree has worked with Pacific Street Films since 1996, both as coordinating producer, director and Web designer. He designed and programmed *The Economic Classroom* Web site.

Director of Content

John S. Morton is vice president for program development at the National Council on Economic Education. He was president of the Arizona Council on Economic Education from 1997 to 2001. Mr. Morton has over 35 years' experience as a high school economics teacher, college professor, college administrator, and economic education writer and presenter. He is the author or co-author of more than 30 economics publications.

Educational Consultant, Writer, and Series Host

Timothy Taylor is managing editor of the *Journal of Economic Perspectives,* an academic journal published quarterly by the American Economic Association based at Macalester College in St. Paul, Minnesota. Taylor received his Bachelor of Arts degree from Haverford College in 1982 and a master's degree in economics from Stanford University in 1984. He then worked as an editorial writer for the San Jose Mercury News for two years, before starting the *Journal of Economic Perspectives* in 1986. He has won awards for teaching economics at Stanford University and the University of Minnesota. He has recorded several economics courses for the general public through the Teaching Company.

Board of Advisors

Brett Hardin is a social studies teacher who began teaching economics in 1996. Hardin has a B.A. in history from Wesleyan University and an M.S. in secondary education from the University of Pennsylvania. He is Georgia Teacher of the Year for 2002.

Donna McCreadie is an economics and honors economics teacher at Temple City High School in California. She received her bachelor's degree at California State University, Los Angeles and her master's at the University of Delaware in economic education. Donna is the past president of the California Association of School Economics Teachers and a member of the Writing Committee for National Standards in Economics. Teaching awards include the Foundation for Teaching Economics' 1994 Excellence in Economic Education and the 1994 California Economics Teacher of the Year presented by EconomicsAmerica of California.

Stephen Rabin is president of the Educational Film Center (EFC) and since 1983 has been responsible for management of production, development, and financing of its programs. Under his direction, EFC has created and produced a number of telecourses, teacher training and workshop series, and several hundred television specials, series, and videos, including several for Annenberg/CPB. These include *The World of Chemistry, Economics U$A, Exploring the World of Music, In Search of the Novel,* and *Inside the Global Economy.*

About the Contributors, cont'd.

Dimitri Saliani is the social studies chairman at Eleanor Roosevelt High School in New York City opening in September 2002. He has taught previously in the Minisink Valley and Mahopac school districts in New York for five years. He has incorporated economic principles into courses such as world history and United States history. He received his master's degree from New York University and bachelor's from the State University of New York at New Paltz with a major in history.

Dr. Mark C. Schug is the director of the UW-Milwaukee Center for Economic Education. The UWM Center is affiliated with the Wisconsin Council on Economic Education and the National Council on Economic Education. Dr. Schug has taught for over 30 years at the middle school, high school, and university levels. Professor Schug has written and edited over 170 publications.

Elaine L. Schwartz is an AP economics teacher at the Kent Place School. Located in Summit, New Jersey, Kent Place is an independent all-girls' day school pre-K through grade 12. During her 31 years at Kent Place, Elaine has chaired the history department and taught U.S. history. Currently, she occupies an endowed chair in economics and is a member of the Cum Laude Society. Schwartz is a mentor teacher and a workshop leader for the Foundation for Teaching Economics and the author of several textbooks.

Teachers Featured in *The Economics Classroom*

Heather Anderson has a degree in social science education and began her career in education teaching eighth-grade American history. Currently, she teaches four economics honors classes and one AP microeconomics class at Eau Gallie High School in Melbourne, Florida. She has been teaching economics since 1999.

> "I decided to teach high school. The only way I could move here was to teach world history and economics. And I thought, 'I can do it. I'll get through a couple of years and then I'll get rid of the economics and I'll be left with the world history.' And once I started teaching economics that's what I ended up loving. And so now I'm trying to get rid of the world history so that I can have all economics."
>
> Classes presented in *The Economics Classroom:* Price Floors (Workshop 3); Price Ceilings (Workshop 3); Compound Interest (Workshop 4)

Kendra Cheese teaches economics at Lakewood Senior High, located in western Jefferson County, a suburb of Denver, where she is the department chair for social studies. A Denver native, she has been teaching for 32 years. She received the Enterprising Teacher of the Year award from the Colorado Council of Economic Education in 2001. For the last four years, she has been teaching pre-international baccalaureate economics to ninth graders.

> "Teaching ninth graders economics is a difficult challenge because they haven't had a lot of real-world experiences. They don't drive, most of them have never worked, they're still in that transition period from their parents giving them allowance to knowing more about how to work with money. But ninth graders are enthusiastic and they're spontaneous and they like activities...they really enjoy them and don't look at them as being beneath them."
>
> Class presented in *The Economics Classroom:* Property Rights (Workshop 3)

Dr. Eric M. Gernant received an M.A. and a Ph.D. in economics from Fordham University and has been teaching in the New York City school system since 1972. He transferred to New York City's High School of Economics and Finance in 1995. One of New York's specialized high schools, the High School of Economics and Finance offers a specialized curriculum focusing on finance and business-related courses.

> "Historically, social studies teachers hate to teach economics. You have very few teachers on the faculty in any high school who have a master's degree, let alone a bachelor's degree in economics. It's always a course that's farmed out to somebody who has the least seniority. And here I had an opportunity, I thought, with a passion for the subject, to really go into depth and give these kids a top-notch education."
>
> Class presented in *The Economics Classroom:* Comparative Advantage and Specialization (Workshop 5)

About the Contributors, cont'd.

Jay Grenawalt has been teaching for over 25 years. Currently, he works with juniors and seniors in the international baccalaureate program at George Washington High School in Denver, Colorado, teaching economics and history. He has been the recipient of many awards, including the White House Fellowship Distinguished Teacher of the Year Award, Commission on Presidential Scholars, 1994; the Boettcher Foundation Teacher Recognition Award, 1996; and the University of Chicago Outstanding Teacher Award, 1997 and 1998.

Grenawalt's students are generally very committed and academically oriented. He notes that even those students who are "sort of in the middle of the pack" get swept up by the interest and the enthusiasm that many of the students have.

> "Too many American texts present economics from the American perspective only and we really do live in a global economy today. I try to find as many curricular materials that perhaps take us out of our own boundaries and look at it more in terms of how the Europeans might view it or the people in Asia or what have you...."
>
> Classes presented in *The Economics Classroom:* Voluntary Trade (Workshop 1); Global Trade (Workshop 5); Gains From Trade (Workshop 5); What Makes Countries Rich? (Workshop 8)

Brett Hardin is a social studies teacher who began teaching economics in 1996. Hardin has a B.A. in history from Wesleyan University and an M.S. in secondary education from the University of Pennsylvania. He was a STAR teacher from 1998 through 2002, received the 2000-2001 BellSouth-Atlanta Braves Excellence in Education Award and was Georgia Teacher of the Year for 2002. He teaches at Campbell High School in Smyrna, Georgia.

> "One of the things about teaching economics has been that I'm a better American history teacher than I was before, because there are lots of moments in American history where major economic events have obviously had major social or political impacts. And the social studies teachers—we like to focus on the social and political. We shy away from the economics 'cause we don't always understand it."
>
> Classes presented in *The Economics Classroom:* Macroeconomics (Workshop 6); Unemployment (Workshop 6); Effects of Inflation (Workshop 6)

Ted Hartsoe teaches economics at Choate Rosemary Hall, a small, private secondary school in Wallingford, Connecticut. The school has about 800 students and the economics program is an important feature in the curriculum. Mr. Hartsoe's economics classes are very popular elective choices. He teaches microeconomics, macroeconomics, international economics and an advanced topics course in economics. In 2001 he was named a NASDAQ Teacher of the Year and the student team he coached won the NCEE's first nationwide Economics Challenge.

> "It's important for all the students, not just AP-level students, to know about basic economic indicators.... They have to be able to put those into context and understand what that tells them about the performance of the national economy. So they can understand what the politicians are saying to them and political candidates, and what that means in terms of policy—fiscal policy and monetary policy. I think every citizen needs to have an understanding of those indicators and what they mean and what those numbers are telling them."
>
> Classes presented in *The Economics Classroom:* Measuring Inflation (Workshop 6); Fiscal Policy (Workshop 7); How Money Works (Workshop 7); Business and Finance (Workshop 8)

About the Contributors, cont'd.

Marc A. Johnson is the social studies department coordinator and a teacher at Smoky Hill High School in Aurora, Colorado. He has taught middle school, high school, and community college for over 18 years. He received the Teacher of the Year Award from Horizon Community Middle School in 1995, the Enterprising Teacher of the Year Award from the Colorado Council on Economic Education in December 2000, and was one of four Colorado teachers selected by the NCEE to do a study tour of St. Petersburg, Russia, and establish an international classroom partnership in March 2002.

"A very good young social studies teacher said, 'You know, you could throw me into any social studies class—anthropology, psychology, sociology, history, geography—and I could handle them all except for economics. I wouldn't feel comfortable there.' So the challenge is how do you get these guys, who have avoided economics in the past, how can you get them up to speed with economics? And I'm convinced the answer is through strong state councils offering courses that are non-threatening and friendly. I think we need to attack it in two ways: a content base, so they really have some economic understanding, then give them some lessons and activities and things that they can do. I don't think one is good without the other."

Classes presented in *The Economics Classroom:* Salaries and Wages (Workshop 4); Millionaires (Workshop 4); Education Pays Off (Workshop 4)

Richie Kibota teaches at Iolani High School in Honolulu, Hawaii. Affiliated with the Episcopal Church, the school is a culturally diverse, coeducational, college preparatory school. A member of the Hawaii Council on Economic Education, Richie has coached students at Moanalua High School and at Iolani to win the Hawaii State Economics Challenge contest. An economics teacher since 1983, Kibota has taught both advanced placement and microeconomics courses and currently teaches an elective 12th-grade economics class.

"This course is strictly an economics course. It's not a financial management course and it's not a consumer education course. It's teaching microeconomic concepts. These students will become smarter consumers and make better decisions when it comes to finances down the road."

Class presented in *The Economics Classroom:* Cartels and Competition (Workshop 2)

Dee Mecham teaches at Kamehameha School in Honolulu, Hawaii, a school that is unique because all the students are of Hawaiian ancestry. The school was founded by Princess Bernice Pauahi Bishop to support the Christian and Hawaiian values of the island's children.

Mr. Mecham was a Ph.D. student in economics at the University of Hawaii who found his part-time work as a college teaching assistant so exciting that he now teaches full-time at Kamehameha School. He teaches a one-semester principles course (the regular level), a one-semester honors course, and the year-long advanced placement course. One semester of economics is required at any of the three levels. Mecham has received the 2002 Economics Teacher of the Year award for Hawaii from Hawaii Pacific University and the Hawaii Council on Economic Education.

"I definitely try to use a lot of local examples. In fact, when I started teaching classes at the University—I had come from Utah, so a lot of the examples that I had had to deal with parkas and skiing and snow. I've definitely switched and become more accustomed to using examples that have to do with surfboards and Spam musubis, some of the local foods here. It helps the kids to understand."

Class presented in *The Economics Classroom:* Price Controls (Workshop 3)

Mark Melkonian supports his high school's overall mission to provide a rigorous curriculum with a special focus on finance and business, and to help students prepare for the business world and for college. Mr. Melkonian teaches history, as well as entrepreneurship classes, at the High School of Economics and Finance in New York, New York.

"It's not just starting and owning your own business, it's empowering young people and giving them the ability to see an opportunity and act on it and to improve their lives. And I think if young people get that message, that's the key. That's what I'm hopefully trying to do."

Class presented in *The Economics Classroom:* Entrepreneurs (Workshop 8)

About the Contributors, cont'd.

Ghandi Moussa teaches economics, including the school-required "Welcome to Wall Street" course, at the High School of Economics and Finance in New York. Originally a social studies teacher, Mr. Moussa enjoys incorporating his passion for history and government studies into his economics classes.

> "It's hard to make a case for the kids about the importance and the value of learning history and learning politics and government. It just doesn't seem to catch on. But with economics and finance, they can see the relevance and the immediate effect on their own lives."
>
> Class presented in *The Economics Classroom:* Patents and Copyrights (Workshop 8)

Carol Penland has been teaching economics for over 25 years. She received the first Teacher of the Year in Economics award in Georgia in 1986 and was the founding president of the Georgia Association of Economic Educators in 1994. She has served on local, state, and national committees to write curriculum and is currently working with the Georgia Department of Education to revise the end-of-course test for economics. She teaches at South Cobb High School in Austell, Georgia.

> "Economics has been called 'the dismal science' and there's a reason for that. Most of us go to college and we just have someone stand up and talk to us about it. But I think students, especially in high school—and even in elementary and middle school—if they can have some hands-on experience it just makes a world of difference. I don't want students to be afraid of economics. I want them to embrace it because it will make them better citizens, better consumers, better producers, and that's going to make our economy better for all of us."
>
> Classes presented in *The Economics Classroom:* Supply and Demand (Workshop 2); Market Simulation (Workshop 2)

Colonel Dick Rankin was a career military officer. A graduate of the Virginia Military Institute, he taught economics and was the course director for sophomore economics at West Point. After he retired from the service, he began teaching at Iolani High School in Honolulu, Hawaii. He has coached a number of award-winning student economics teams, including an Economics Challenge National final-four team, and three Western Region Championship teams. Rankin has been the recipient of many awards, including U.S. Military Academy Department of Social Science Teacher of the Year, 1983; Hawaii State Economics Teacher of the Year, 2000; Western Region Economics Teacher of the Year, 2001; and the National Economics Teacher of the Year, 2001.

> "I think economics is an extremely important subject. It's a life-long skill that should be learned sooner rather than later. It is critical to get a handle on what makes our economy tick early on in your life and to understand the importance of decision-making. After all, economics really is about decision-making. Every decision you make doesn't just have benefits, it has costs as well. And to weigh the costs and benefits, to think critically about those decisions, is going to make a person make the right decisions. I think it's important to know economics on a personal level. I think to be an informed voter, economics is extremely important."
>
> Class presented in *The Economics Classroom:* Shifts in Supply and Demand (Workshop 2)

Steve Reich is an experienced teacher with over 17 years presenting economics and personal finance. While he had some minimal college course work in economics, he, like many teachers, had to learn on the job. He teaches at Valhalla High School in Valhalla, New York.

> "When I first started teaching economics, I had only taken one class in economics and I was basically reading the textbook and trying to figure out what it was I was going to teach the next day. I was just out of college and I think they were looking for a large male who was also schooled in football. I was a social studies teacher. I had a history and an English degree. Economics was the job and they said, 'Can you teach it?' And I said, 'Absolutely,' and went right to it and did it."
>
> Classes presented in *The Economics Classroom:* Incentives (Workshop 1); Incentives and Public Policy (Workshop 3)

About the Contributors, cont'd.

Eliot Scher has been teaching economics for over 20 years, and like many of the other exceptional teachers we see in this series, his economics career began almost by accident. He teaches at White Plains High School in White Plains, New York.

"It was 1980 and we wanted to implement an economics program. Our department chairperson came to us and said, 'Who wants to teach economics?' and nobody knew anything about economics. They offered us some money for writing the curriculum and here I was, I was a young father [who] needed a couple of bucks and so I said to him, 'Hey, I'll write the curriculum.' And we sat down (it was one other person and myself) to write the curriculum and we had no idea where to begin. We looked at the State of Oregon's economics curriculum. So we said, 'We found this great curriculum out in Oregon and we think it looks pretty good,' and we implemented the Oregon economics program and it stuck."

Classes presented in *The Economics Classroom:* Stock Market (Workshop 4); Inflation (Workshop 6); Open Market Operations (Workshop 7); Fed Challenge Team (Workshop 7)

Elaine Schwartz teaches at Kent Place School, a private girls' school in Summit, New Jersey that was founded over 100 years ago. Currently, her economics class, which is an elective, is composed of 18 seniors. She is also the author of two economics textbooks.

"I perceive economics to provide a fundamental outlook for all of us in our personal lives, at work and as voters. And with that in mind—with the idea that decisions always involve tradeoffs, that people respond to incentives, that people go and they trade—they buy when they think they're going to get individual gain. All of these basic ideas are at the heart of what thinking economically is about. I perceive economics as a critical, critical area for students to learn about when they're at the high school level."

Classes presented in *The Economics Classroom:* Opportunity Cost (Workshop 1); Trade-Offs (Workshop 1); Protectionism (Workshop 5)

Greg Smith is a social studies teacher with a master's degree in American history. At Hastings-on-Hudson High School in Hastings-on-Hudson, New York, he teaches economics, a curriculum requirement, to mainstream students, as well as at-risk students, such as the class shown in this workshop.

"When we start the class, I'm getting some of the basic economic principles down, so they have that as a core foundation—a key vocabulary for them. The responses in the beginning are mixed. Some of them take an interest [in] it. Others think it's boring. But I noticed as the class progresses they seem to take more stock in what they do and they become more interested in what we're doing in class. As the year progresses they start to see the relevance. It's not something that I can teach in one 40-minute class or one 80-minute class to show them the relevance. It's something that I have to build upon, with the hope that by the end of the semester they come to see that."

Class presented in *The Economics Classroom:* Monetary Policy (Workshop 7)

Anna Vanlandingham has taught in Mississippi and now teaches at Lake Mary High School in Lake Mary, Florida. Like many other experienced teachers, she was recruited to teach economics. Her school needed an assistant basketball coach and economics teacher and she accepted. More than 20 years later, she is one of Florida's most experienced high school economics teachers. Her awards include the 2001 Regional NASDAQ Economics Educator of the Year; Florida Council on Economic Education Economics Educator of the Year, 2002; and the 2001 Florida Junior Achievement Economics Educator of the Year.

"When a new teacher is starting out with hands-on activities it can be difficult. One of the first things that you have to accept with hands-on is you don't have complete control of your classroom. Most beginning teachers are not equipped for that. When you're a new teacher you're not real confident, so it makes you want to be more in control of everything. Another thing is you have to have confidence in yourself and listen to the students if you really want to make it interesting and make it good. Because I found that when I first started doing some of these things that my students had a lot of good suggestions, which improved my program. That confidence takes a couple of years of teaching to develop."

Class presented in *The Economics Classroom:* Gross Domestic Product (Workshop 6)

Helpful Hints

Conducting Successful Workshop Sessions

Utilize All the Workshop Components

The Economics Classroom consists of eight hour-long videos, *The Economics Classroom* Web site, and the materials in this guide. Each workshop is two hours long and consists of a one-hour video and a one-hour site discussion.

Designate a Facilitator

Each week one participant should be responsible for facilitating the workshop session. Another option is to appoint a facilitator and another participant to demonstrate a lesson. The facilitator does not need to be the same person each week. In fact, we recommend that participants rotate the role of facilitator on a weekly basis. The facilitator should bring the necessary materials to that workshop or make sure the materials are there.

Keep an Eye on the Time but Be Flexible

Each workshop consists of a one-hour video and a one-hour site discussion. The recommended format is to stop the video at designated times and conduct a discussion or lesson pertaining to the content just viewed. There is also time for Getting Ready and Closure. These times differ for each workshop. The times are approximate. Feel free to alter the discussions depending on your needs.

Note: If you are watching the video programs directly from the Annenberg/CPB Channel broadcast or via the Annenberg/CPB Channel Web stream, you will be unable to stop the program for discussions and activities. Therefore, you will need to alter the workshop session to discuss and hold group activities before and/or after watching the program.

Read the Lessons Before the Workshop

Each workshop involves discussing or demonstrating two sample lessons. To facilitate the use of the lessons, read them before the workshop. If the lesson is to be demonstrated, do not read the answers. It would also be helpful to designate a lesson facilitator the week before each workshop.

Try the Lessons in Your Classroom

Conduct the lessons in your classroom if you are currently covering that content. Share your experiences with your colleagues; be sure to discuss any changes you made in the lesson to meet the needs of your students.

Utilize the Web Site

You can find *The Economics Classroom* Web site at

www.learner.org/channel/workshops/economics.

The Web site offers lesson plans and links to other sources of information that are not found in this guide. On the Web site, you will find:

- About the Workshops
- Workshop Descriptions
- About the Teachers
- Support Materials (this guide in PDF file format)
- Channel-Talk (the email discussion list for this workshop)
- Resources
- Credits

There are also links to workshop registration, information on receiving graduate credit, the broadcast schedule of the video programs on the Annenberg/CPB Channel, and information on purchasing the video programs.

Helpful Hints, cont'd.

Make Choices

You may find that viewing the video, conducting the discussions, and demonstrating the lessons take more than two hours. We recommend that the facilitator make choices among the activities and decide which discussion items are most important for the participants. All activities and lessons spring from the videos, so all choices will be appropriate to the content.

Workshop 7

Monetary and Fiscal Policy

Description

The government uses monetary and fiscal policy to manage the economy. Monetary policy and fiscal policy are tools to increase or decrease aggregate demand and, to some extent, increase aggregate supply. Fiscal policy is conducted by the President and Congress and consists of changes in government taxes and spending. Monetary policy is conducted by the Federal Reserve Board and consists of increasing or decreasing the money supply through open-market operations, changes in the discount rate, and changes in reserve requirements. Changes in the money supply affect interest rates, and changes in interest rates affect investment, consumption, unemployment, inflation, and economic growth.

Ted Hartsoe discusses fiscal policy tools with his students at Choate Rosemary Hall in Wallingford, Connecticut. In the next segment, Greg Smith's students at Hastings-on-Hudson High School in New York make posters to illustrate the tools the Federal Reserve uses to conduct monetary policy. Next, Eliot Scher's students at White Plains High School in New York role-play as members of the Federal Open Market Committee to analyze the goals and tasks of monetary policy. Then Ted Hartsoe uses a simulation with a balance sheet and pennies to illustrate money creation. Finally, Eliot Scher's students participate in their first "Fed Challenge" competition.

Key Concepts

- Aggregate demand is the sum of the consumer, investor, government, and foreign demand in the economy at various price levels.
- Aggregate supply is the sum of the goods and services that will be supplied at various price levels.
- Fiscal policy consists of changing government spending and tax revenues in order to promote full employment, price stability, and economic growth.
- Money is anything that is generally accepted as final payment for goods and services. Money serves as a medium of exchange, a standard of value, and a store of value.
- Monetary policy consists of changes in the supply of money and availability of credit initiated by the Federal Reserve in order to promote price stability, full employment, and economic growth.

Voluntary National Content Standards in Economics

The activities shown in this workshop illustrate the following standards:

- Money makes it easier to trade, borrow, save, invest, and compare the value of goods and services. (Content Standard 11)
- Interest rates, adjusted for inflation, rise and fall to balance the amount saved with the amount borrowed, which affects the allocation of scarce resources between present and future uses. (Content Standard 12)
- A nation's overall levels of income, employment, and prices are determined by the interaction of spending and production decisions made by all households, firms, government agencies, and others in the economy. (Content Standard 18)
- Federal government budgetary policy and the Federal Reserve System's monetary policy influence the overall levels of employment, output, and prices. (Content Standard 20)

Workshop Session

Getting Ready (20 minutes)

- Appoint a participant to make four signs on 8.5"x 11" sheets of paper. The signs should say, "Increase Aggregate Demand," "Decrease Aggregate Demand," "Increase Aggregate Supply," and "Decrease Aggregate Supply." Put the signs on the floor in different areas of the room. *Make sure there is space between the signs.*
- Have each participant choose an economic policy or an economic event from the list below. Each person will make a sign indicating his or her policy or event and hold it before the activity starts. Feel free to add or subtract policies and/or events in accordance with the number of participants. However policies or events are chosen, each participant should select one before making his or her sign and carrying it to the appropriate place on the floor.
  - Congress cuts taxes mainly for the poor.
  - Congress cuts the capital gains tax.
  - OPEC raises oil prices.
  - New technology increases productivity.
  - The Federal Reserve buys government securities.
  - The Federal Reserve sells government securities.
  - Government spending increases.
  - The Federal Reserve lowers the discount rate in order to lower other interest rates.
  - More people begin taking early retirement.
  - The money supply increases.
  - Education and training levels increase for most new workers.
  - A new invention makes solar energy the least expensive way to heat homes and fuel cars.
  - Consumers are pessimistic about the future.
- Each participant should stand by the sign on the floor that indicates his or her policy's or event's effect on aggregate demand or aggregate supply.
- Discuss what happened.
  - Did any participants go to the wrong sign? Why did they do this?
  - Did some participants have to split their personalities and go to two signs? What could account for this?
  - Can government control all the variables that affect aggregate demand and supply? Why or why not?

Watching and Discussing the Video (95 minutes)

1. View Section One (fiscal policy) and Section Two (monetary policy). (16 minutes)
2. The participants should form small groups and answer the questions in Lesson 7.1, "The Tools of Fiscal Policy." (16 minutes)

Workshop Session, cont'd.

3. In the same small groups, participants should discuss ways to help students understand expansionary and contractionary fiscal policy. (5 minutes)

- How did Ted get the monetary and fiscal policy ideas across to his students?
- What teaching strategies do you use to accomplish this goal?

4. View Section Three (open-market operations), Section Four (how money works), Section Five (Fed Challenge practice), and Section Six (Fed Challenge). (43 minutes)

5. In small groups, read Lesson 7.2, "Money, Interest, and Monetary Policy," and discuss the following questions. (15 minutes)

Facilitator: Because the lesson is long, you may want to assign this to participants to read before coming to the workshop session.

- How does the activity with popcorn seeds and kidney beans illustrate inflation?
- How does the money-creation activity (Activity 2) compare to Ted's activity on money creation? What activities do you use to illustrate money creation?
- Greg Smith's students use posters to illustrate the effects of monetary policy. What makes this activity effective? What activities do you use to show the effects of monetary policy?
- Eliot Scher uses "The Fed Challenge" competition to teach monetary policy. What are the advantages and disadvantages of using a competition like this in a one-semester high school economics course?

Closure (5 minutes)

Is the following statement true, false, or uncertain. Why?

"The President can fix the economy."

Lesson 7.1: The Tools of Fiscal Policy

"The Tools of Fiscal Policy" is from *Advanced Placement Economics: Macroeconomics: Student Activities,* by John S. Morton, National Council on Economic Education, 1996.

Changes in federal taxes and federal government spending designed to affect the level of aggregate demand (and in some cases aggregate supply) in the economy are called *fiscal policy.*

Aggregate demand is the total amount of spending on goods and services in the economy during a stated period of time. Aggregate demand consists of consumer spending, government spending, and investment spending.

Aggregate supply consists of the total amount of goods and services available in the economy during a stated period of time.

During a recession, aggregate demand is usually too low to bring about full employment of resources. Government can increase aggregate demand by spending more, cutting taxes, or doing both. These actions often result in budget deficits because the government spends more than it collects in taxes. Increasing government spending without increasing taxes or decreasing taxes without decreasing government expenditures should increase aggregate demand. Such an expansionary fiscal policy should increase employment, inflation, or both.

If the level of aggregate demand is too high, government can reduce its spending, increase taxes, or do both. These actions should result in a larger budget surplus or a smaller budget deficit than existed before. Such a contractionary fiscal policy should lower the level of aggregate demand, and the economy will experience less employment of its resources, less inflation, or both.

Part A.

Decide whether each of the following fiscal policies of the federal government is expansionary or contractionary. Write *expansionary* or *contractionary* and explain the reasons for your choice.

1. The government cuts business and personal income taxes and increases its own spending. ____________________

2. The government increases the personal income tax, Social Security tax, and corporate income tax. Government spending stays the same. ____________________

3. Government spending goes up while taxes remain the same. ____________________

4. The government reduces the wages of its employees while raising taxes on consumers and business. Other government spending remains the same. ____________________

Part B.

Test your understanding of fiscal policy by completing the first four questions in the table "Effects of Fiscal Policy." All your choices for each situation must be consistent, that is, you should choose either an expansionary or contractionary fiscal policy. Fill in the spaces as follows:

Column A: Objective for Aggregate Demand
Write *increase* if you wish to increase aggregate demand.
Write *decrease* if you wish to decrease aggregate demand.

Column B: Action on Taxes
Write *increase* if you wish to increase taxes.
Write *decrease* if you wish to decrease taxes.

Column C: Action on Government Spending
Write *increase* if you wish to increase government spending.
Write *decrease* if you wish to decrease government spending.

Column D: Effect on Budget
Write *toward deficit* if you wish to increase the deficit (or reduce the surplus).
Write *toward surplus* if you wish to reduce the deficit (or increase the surplus).

Effects of Fiscal Policy

	(A) Objective for Aggregate Demand	(B) Action on Taxes	(C) Action on Government Spending	(D) Effect on Budget
1. The national unemployment rate rises to 12%.				
2. Inflation is strong and its rate is now 14% per year.				
3. Surveys show consumers are losing confidence in the economy, retail sales are weak, and business inventories are increasing rapidly.				
4. Business sales and investment are expanding rapidly, and economists believe strong inflation lies ahead.				
5. Inflation persists while unemployment stays high.				

Suggested Solutions—Lesson 7.1: The Tools of Fiscal Policy

Part A.

1. **Expansionary.** A personal tax cut increases consumer demand. A business tax cut increases investment demand. An increase in government spending increases government demand.
2. **Contractionary.** The tax increases reduce consumer and investment demand. Government demand remains the same.
3. **Expansionary.** Higher government spending without a corresponding rise in tax receipts increases total demand in the economy.
4. **Contractionary.** Lowering government employees' wages decreases government demand. Higher taxes decrease consumer and investment demand.

Part B.

Effects of Fiscal Policy

	(A) Objective for Aggregate Demand	(B) Action on Taxes	(C) Action on Government Spending	(D) Effect on Budget
1. The national unemployment rate rises to 12%.	Increase	Decrease	Increase	Toward deficit
2. Inflation is strong and its rate is now 14% per year.	Decrease	Increase	Decrease	Toward surplus
3. Surveys show consumers are losing confidence in the economy, retail sales are weak, and business inventories are increasing rapidly.	Increase	Decrease	Increase	Toward deficit
4. Business sales and investment are expanding rapidly, and economists believe strong inflation lies ahead.	Decrease	Increase	Decrease	Toward surplus
5. Inflation persists while unemployment stays high.	This question is designed to show that traditional fiscal policy doesn't provide solutions to the problems presented by the simultaneous presence of inflation and excessive unemployment. Use this question to examine the principal alternatives to demand management economics, which are given in the discussion above.			

Lesson 7.2: Money, Interest, and Monetary Policy

"Money, Interest, and Monetary Policy" is from *Focus: High School Economics*, by Michael W. Watts, Sarapage McCorkle, Bonnie T. Meszaros, and Mark C. Schug, National Council on Economic Education, 2001.

Introduction

Growth of the money supply is related to inflation. This lesson examines how money supply growth rates can lead to inflation when they outpace the growth in output. To maintain price stability and steady rates of economic growth, the Federal Reserve System tries to control the supply of money. Changes in the money supply lead to changes in interest rates which, in turn, affect the availability of credit and national levels of spending and output.

Concepts

- Money supply
- Inflation
- Open market operations
- Reserve requirements
- Discount rate
- Interest rate

Content Standard

- Federal government budgetary policy and the Federal Reserve System's monetary policy influence the overall levels of employment, output, and prices.

Benchmarks

In the long run, inflation results from increases in a nation's money supply that exceed increases in its output of goods and services.

Monetary policies are decisions by the Federal Reserve System that lead to changes in the supply of money and the availability of credit. Changes in the money supply can influence overall levels of spending, employment, and prices in the economy by inducing changes in interest rates charged for credit and by affecting the levels of personal and business investment spending.

The major monetary policy tool that the Federal Reserve System uses is open market purchases or sales of government securities. Other policy tools used by the Federal Reserve System include increasing or decreasing the discount rate charged on loans it makes to commercial banks and raising or lowering reserve requirements for commercial banks.

Objectives

- Students describe how changes in the money supply can affect the average level of prices.
- Students explain how the Federal Reserve System uses the major tools of monetary policy to regulate the economy's money supply.
- Students explain the chain of events that occur in the economy when the Federal Reserve System engages in a specific monetary policy.

Lesson Description

Students participate in two simulations. In the first, they discover the effects of excessive money creation on product prices. In the second simulation, they learn how the Federal Reserve System uses different tools of monetary policy to adjust the amount of money in the economy. Then they learn how monetary policies affect the economy as a whole.

Time Required

Two class periods. Day One: procedures 1-15. Day Two: procedures 16-22 through Assessment.

Materials

- Popcorn seeds and kidney beans—enough to give each student 10 seeds and 5 beans
- Three identical bags of candy
- Activity 1: Money Matters Simulation Questions, one per student
- Activity 2: Money Creation, 10 copies cut in thirds, and 10 additional copies of the $10,000 bill
- A paper tent sign with the word "BANK" written on both sides
- Visual 1: Monetary Policy and the Demand for Loanable Funds

Procedures

1. Ask students how many of them would be better off with more money. (Most will raise their hands.) Tell them that may be true for each of them, but it may not be true for everyone. Explain that the "fallacy of composition" (what's true for the individual is also true for the whole) is a common pitfall in economic thinking. Announce that you will conduct a simulation to determine if everyone is better off if everyone receives more money. You will hold three auctions for three identical bags of candy, one sold in each round.

2. Give each student five popcorn seeds, and explain that for this activity each seed is worth 10 cents. Calculate the size of the classroom **money supply** (50 cents x number of students) and write it on the chalkboard. Sell the first bag of candy to the highest bidder, collect the "money" from the winning bidder, and write the price paid (in a dollar equivalent) on the chalkboard. Don't be concerned if some students pool their "money" during the bidding; this adds to the excitement of the auction.

3. Distribute the remaining popcorn seeds (5 per student), reminding students that each seed is worth 10 cents, including any they did not spend in the first auction. Write the size of the money supply on the board ($1 x the number of students, minus the amount paid by the winner of the first auction). Conduct the second auction. Give the second bag of candy to the highest bidder, collect the price from the winning bidder, and write the price on the board.

4. Expand the money supply again to include the popcorn seeds students still have *and* the kidney beans that you distribute now (5 per student). The kidney beans are valued at $1 each. Calculate the money supply and write the number on the board ($6 x the number of students, minus what was paid by the winners of the first two auctions). Auction the third bag of candy to the highest bidder, and write the price on the board. Note that the rapid increase in the classroom money supply, when the amount of goods available to be consumed in each period remained constant, drove up the price of candy. Explain that the same thing would have happened if there had been more than one kind of good auctioned in each round, as long as the total quantity of goods in each round remained fixed while the money supply increased rapidly.

5. Ask students to explain the fallacy of composition in thinking that everyone will be better off if everyone has more money, based on their experience with the simulation. *(There was a larger money supply, but there was still the same amount of goods. The amount of money alone had no impact on the amount of goods available, only on the price of the goods.)* Ask for a term that students might have heard to describe this situation. *(Inflation)*

6. Define **inflation** as an increase in the average price of goods and services in the economy. Explain that, during the second and third auctions, students witnessed the fundamental long-run source of inflation in an economy—the supply of money growing faster than the supply of goods and services available for purchase. This is often described as too much money chasing too few goods.

7. Distribute a copy of Activity 1 to each student to reinforce the understanding of inflation developed in the auctions. Have students complete the worksheet independently, and then discuss students' answers in class. (Answers are provided below.) Point out that the long-run growth in the production of goods and services in the U.S. economy averages 2% to 4% a year. A long-term growth in the money supply of about the same rate would have a neutral effect on prices, assuming people don't change their spending and saving behavior for other reasons. (Over the long run, however, people do change their spending and saving behaviors as a result of institutional factors, such as being paid more or less frequently, and to some extent as a result of changes in other factors such as income levels and interest rates.)

Answers to Activity 1

a. What happened to the price of the item auctioned between the first and third auctions? *(It increased.)*

b. What happened to the amount of "money" in the classroom between the first and third auctions? *(It increased.)*

c. What gave the seeds and beans value? *(They could be used to buy something. The money's real value depended on the amount of goods it could buy.)*

d. When the students had more money to spend, what happened in the successive auctions? *(Prices increased.)*

e. What do you think would have happened to the price if the number of items offered for sale in the third auction increased from one to 100? *(Decrease in average price)*

f. Under what conditions is increasing the supply of money inflationary? *(When the increase in the money supply greatly exceeds the increase in the number of goods and services available)*

g. Under what conditions is increasing the supply of money not inflationary? *(When the increase in the money supply is not greater than the increase in the number of goods and services, or if people choose not to spend their larger money holdings)*

8. Summarize that when the money supply increases, it is important that it grow at an appropriate rate—not too fast and not too slow. Explain that the students will participate in an activity to show how the Federal Reserve System can determine, at least to a large extent, how fast or how slowly the U.S. money supply grows. **Note to teacher:** Students can learn more about the Federal Reserve System at www.FederalReserveEducation.org.

9. Inform students that an independent agency of the federal government, the Federal Reserve System (the Fed), is responsible for regulating the U.S. money supply. In doing this, the Fed influences **interest rates** (the price of loanable funds) in the economy. To demonstrate how the Fed regulates the money supply, divide the class into thirds. Using materials prepared from Activity 2, give each student in the first group a $10,000 U.S. Treasury bond; each student in the second group $10,000 in currency; and each student in the third group $10,000 in a checking account.

10. Explain that the students with bonds have each lent money to the U.S. Treasury. The Treasury bond is an IOU from the government, acknowledging the debt and promising to repay the bondholder, with interest, at a certain time. The bond is *not* money, however, because it can't be widely used to purchase goods and services from people or in stores. Students with $10,000 in a checking account or in currency have money that *can* be used to buy goods and services; only the forms in which they hold the money differ. Point out that students have probably seen people buy things with currency and checks, but not with bonds.

11. Ask all students with money (checking deposits or currency) to raise their hands. Count the number of hands and multiply by $10,000 to determine the initial amount of money in the classroom. Write this number on the chalkboard under the heading of "Money Supply."

12. Tell four students with bonds to assume that they want to buy something, so they must get money by selling their bonds. Tell four students with money (currency or checks) to assume that they now want to buy bonds in order to earn interest. Have the eight students exchange their bonds and money. Ask the class if there has been any change in the amount of money in the classroom. *(No—different people hold money and bonds, but the total amounts have not changed. Demonstrate with another show of hands, counting those who hold currency and checks.)*

13. Tell four more students with bonds that they have decided they want to get money by selling their bonds. Announce that you will act as the Federal Reserve System in the rest of the activity. The Fed has decided to buy these four bonds. Give each of the four students $10,000 in currency in exchange for the $10,000 bond. Explain that the Federal Reserve System buys bonds when it engages in an expansionary monetary policy. Explain the following:

a. What has happened now to the amount of money in the classroom? *(It increased by $40,000. Demonstrate with another show of hands.)*

b. Where did the money come from? *(The Federal Reserve)*

c. Where does the Federal Reserve get the money? *(The Fed created the money out of thin air, in effect printing money, although in practice it simply pays with a check, not by issuing additional currency.)*

d. When the Fed buys bonds, it engages in expansionary monetary policy. Why is it called "expansionary"? *(The money supply increases, or expands.)*

14. Reverse procedure 13; that is, have the Fed sell bonds to four students in exchange for money (currency or checks) from the students. Once again, ask all students with money to raise their hands. Count hands and multiply by $10,000 to show that when the Fed sells bonds, that reduces, or contracts, the money supply.

15. Tell students that the Fed buying and selling government bonds is called **open market operations,** and that this is the most important tool used by the Fed to regulate the money supply. Open market operations are used on a week-to-week basis to make both large and small adjustments to the nation's money supply.

16. Ask all students with checking account money to raise their hands. Multiply the number of hands by $10,000, and write this number on the chalkboard under the heading "Bank Deposits." Have a pile of currency equal to this amount with the sign marked "BANK" beside it. Tell the students that the bank has their money on deposit and would like to lend some of it.

17. Explain that the amount the bank can lend depends on the reserve requirements set for banks by the Federal Reserve. The **reserve requirement** is the amount of deposits that a bank must keep "on reserve." These funds may not be lent. Point out that if the reserve requirements were 100%, none could be lent; if it were 25%, 75% could be lent. Announce that in this simulation, the Fed's reserve requirement for banks is initially 50%. (The actual reserve requirement is much less than 50%.) Then lend half the bank's checking account deposits to a student, by giving the student that much money in a checking account. Have the student sign an IOU for the amount of the loan. Explain that banks don't keep every dollar deposited in the bank in the vault—they make loans to earn money for the bank and its depositors, charging interest on those loans. Because depositors don't all show up at the bank at the same time trying to withdraw their money, banks can use most of their deposits to make loans, subject to the Fed's reserve requirements and following sound banking practices, which are monitored by other state or federal banking agencies.

Ask the class the following questions:

a. How much money is in the classroom now? *(Count all currency and checking account balances.)*

b. By how much has the money supply increased? *(By the amount of the loan)*

c. What action caused the increase in the money supply? *(The bank's loan)*

d. If the Federal Reserve cut the reserve requirement, what could the bank do? *(Make more loans and expand the money supply even more)*

Summarize by explaining that actions by the Federal Reserve that change the reserve requirement will influence the money supply. A decrease in the reserve requirement is an **expansionary monetary policy.** An increase in the reserve requirement is a **contractionary monetary policy.**

18. Announce that the bank made too many loans yesterday and is $500,000 short of meeting its reserve requirement. Explain that the Federal Reserve lends money to banks in these circumstances, so they can meet their reserve requirements, but it charges banks interest on these loans. The interest on these loans to banks from the Federal Reserve is known as the **discount rate.** Ask if the bank would borrow this money from the Federal Reserve if it had no better way to meet its reserve requirements? *(Yes, although banks usually try to avoid such loans. But the higher the Federal Reserve sets the discount rate, the more it costs banks to borrow, and the greater their incentive to limit their lending to meet their reserve requirements. Therefore, raising the discount rate is a contractionary monetary policy; lowering the discount rate is an expansionary monetary policy.)*

19. Tell students that although the reserve requirement and the discount rate are monetary policy tools the Federal Reserve sometimes uses, open market operations are the monetary policy tool most frequently used by the Fed. By buying and selling government securities (bonds), the Fed changes the nation's money supply. Changes in the money supply affect the market for loanable funds.

20. Display Visual 1. Explain that this graph shows the effect of a change in the money supply on the quantity of loanable funds demanded by individuals, businesses, and government agencies (local, state, or federal) that want to borrow money. The interest rate is the price of loanable funds. Those who lend money receive interest; those who borrow pay interest.

21. Remind students that when the Fed buys bonds (as in the classroom situation), the money supply increases. Discuss the following.

a. When the supply of loanable funds increases, what happens to the interest rate? *(It decreases.)*

b. Would people who want to buy cars, houses, and durable goods be more or less encouraged to borrow money? *(More)*

c. Would businesses that want to build factories or purchase equipment be more or less encouraged to borrow money? *(More)*

d. If people and businesses borrow more money at the lower interest rate, what will happen to the level of spending in the economy? *(It will increase.)*

e. If people are spending more money, what will businesses want to do? *(Produce more goods and services)*

f. If businesses begin to produce more goods and services, what is happening in the economy? *(The real gross domestic product is increasing; that is, more output is produced and more people have jobs.)*

g. If the money supply increases faster than the rate at which output is growing, what will result? *(Inflation)*

h. What happens if the Fed sells bonds? *(The money supply decreases, interest rates rise, spending and production of goods and services decrease)*

22. Discuss the following: When would the Fed want to conduct an expansionary monetary policy? *(When the economy is facing a recession, or not growing as rapidly as the Fed believes it should)* When would the Fed want to conduct a contractionary monetary policy? *(When the economy is experiencing high rates of inflation, or growing more rapidly than the Fed believes it should)*

Closure

1. If the money supply is growing faster than the production of goods and services in our economy, what will be the result? *(Inflation—too many dollars chasing too few goods)*

2. What is inflation? *(An increase in the average price of goods and services in the economy)*

3. What is the primary role of the Federal Reserve System? *(To regulate the money supply in order to keep inflation and unemployment low, and promote steady economic growth)*

4. What are open market operations of the Fed? *(Buying and selling bonds or other financial securities issued by the federal government)*

5. If the Fed sells government bonds, what type of monetary policy is it pursuing? *(Contractionary)*

6. If the Fed buys government bonds, what type of monetary policy is it pursuing? *(Expansionary)*

7. What is the reserve requirement? *(The percentage of deposits commercial banks must keep "on reserve" with the Fed, which are not available for loans)*

8. Is a decrease in the reserve requirement contractionary or expansionary? *(Expansionary)*

9. What is the discount rate? *(The interest rate paid by commercial banks if they borrow from the Fed)*

10. Which monetary policy tool does the Fed use most often? *(Open market operations)*

11. Describe the chain of events in the economy when the Fed engages in an expansionary monetary policy using open market operations. *(The Fed purchases government bonds, the money supply increases, interest rates fall, people and businesses borrow and spend more money, the production of goods and services [real GDP] increases)*

Assessment

1. Tell students to assume the role of members of the Federal Reserve Board. They are charged with controlling the nation's money supply to achieve full employment and stable prices in the economy. In groups of 12 students (corresponding to the size of the Fed's Open Market Committee, the FOMC), have the students prepare a proposal recommending monetary policy actions designed to correct problems with spending, employment, and average prices caused by high interest rates. Specifically, different groups should assume one of the following scenarios for the economy or, if time permits, have each group consider all three scenarios:

   a. The national economy is sluggish as a result of tight (contractionary) monetary policies over the past two years.

   b. The economy is growing rapidly. Many economists believe there will be shortages of skilled labor and key industrial inputs, such as steel and electric power.

   c. The economy is experiencing 10% inflation per year.

Have each group identify and list the most likely problems with spending, employment, and average prices under the different scenarios. What monetary policy does each group propose? How does each group expect the monetary policy it proposes to solve the problems the group identified with spending, employment, and average prices? Have the groups present their recommendations to the full class, compare their reasoning, and try to agree on the most appropriate set of monetary policies for each scenario.

2. Have students read the business section of any large daily newspaper and find articles on interest rates. Have students, individually or in small groups, speculate on the actions that the Fed might have taken to produce the effect on interest rates described in the article. Have some students present the results of their investigations to the rest of the class for discussion.

Money Matters Simulation Questions

a. What happened to the price of the item auctioned between the first and third auctions?

b. What happened to the amount of "money" in the classroom between the first and third auctions?

c. What gave the seeds and beans value?

d. When the students had more money to spend, what happened in the successive auctions?

e. What do you think would have happened to the price if the number of items offered for sale in the third auction increased from one to 100?

f. Under what conditions is increasing the supply of money inflationary?

g. Under what conditions is increasing the supply of money not inflationary?

Money Creation

$10,000

U.S. Treasury Bond

Face Value Will Be Paid on July 31, 2011

7 1/2% Interest Paid Quarterly

$10,000 THE UNITED STATES OF AMERICA $10,000

$10,000

$10,000 TEN THOUSAND DOLLARS $10,000

Your Name &
Address

Check # 0001

Date

Pay to the
Order of YOU $ 10,000.00

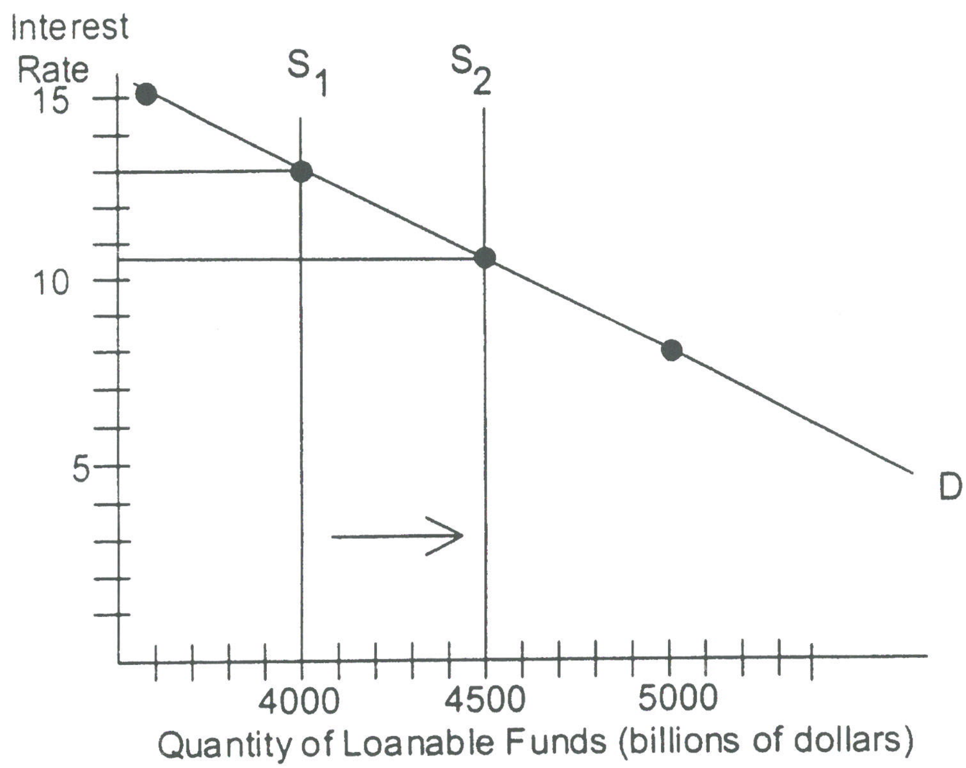
Ten thousand and no/100 dollars

Your Bank
For:

Signature

653276014 223600122 0001

Monetary Policy and the Demand for Loanable Funds



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