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inside the vault

AN ECONOMIC EDUCATION NEWSLETTER FROM THE FEDERAL RESERVE BANK ST. LOUIS

Which Came First—Democracy or Growth?

In today's world, most rich countries are democratic, and most dictatorships are poor. In the United States, democracy goes hand in hand with political institutions that promote economic freedom.

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However, democratic governments, even in rich countries, often enact redistributive policies that reduce economic freedom and that are harmful to economic growth. Therefore, although most economists agree that economic freedom promotes growth, it is not clear that more political freedom (that is, more democracy or political rights) improves economic performance.

What Factors Create Economic Growth?

Economic growth is primarily a result of the accumulation of both physical capital and human capital. The accumulation of capital is affected by public policies, which, in turn, depend on the political institutions that are in place. In a classic study, Robert Barro explained that because citizens express their approval or disapproval when they vote, democratic institutions provide checks on government power that impose limits on politicians' ability to amass wealth and enact unpopular policies. These constraints, he noted, help improve economic freedom. On the other hand, authoritarian governments may also improve economic freedom as a matter of policy, without the need of institutional limits such as those provided by a democracy.

In a study of about 100 countries from 1960 to 1990, Barro found that at low levels of political freedom, an increase in political rights might enhance economic growth by imposing limits on government. But he noted that in countries that have already achieved medium levels of democracy, further increases in political rights might slow growth because of growing concerns about income redistribution. Barro's conclusion that the overall effect of democracy on growth is slightly negative continues to be challenged by alternate views.

One alternate view suggests that the adoption of democracy—or, more generally, of political institutions that impose checks and balances on the government—promotes investment in physical and human capital and, therefore, growth. In contrast, a second view suggests that reaching a certain level of economic development is what allows countries to adopt better institutions.

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Which Came First?

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Do Political Institutions Promote Growth?

A study that supports the view that political institutions promote economic performance found a strong relationship between a measure of protection against government expropriation (as a measure of political institutions) and economic performance (measured by real income per capita) across a large sample of countries. The study looked at two types of colonization strategies that led to different types of political institutions.

The first strategy was the creation of extractive states. In these colonies, the main goal was to transfer much of the resources of the colony to the European power. Institutions created in these colonies did not provide much protection of private property and did not impose checks against government expropriation. Examples of this were the Spanish colonies in Mexico and Latin America, and the Belgian colonization of the Congo.

In the second colonization strategy, European settlers migrated in large numbers and created institutions that replicated those in their home country. These institutions emphasized the protection of private property and checks against government expropriation. Examples of these were Australia, New Zealand, Canada and the United States. The types of institutions adopted in the early stages of either colonization strategy lasted even after the colonies became independent.

Or Does Economic Growth Stimulate Democracy?

The second view is that it is economic growth that stimulates democracy or the adoption of better institutions. Supporters of this view make the point that the accumulation of human capital is a more important determinant of economic growth than political institutions. Supporters of this belief studied a large set of countries in the period from 1960 to 2000, classifying them in four categories: autocracies, imperfect autocracies, imperfect democracies and stable (or perfect) democracies.

In 2000, nearly all countries with high levels of education were classified as stable democracies, and nearly all stable democracies were highly educated. In contrast, nearly all countries run by dictators were poorly educated. In addition, as education levels increased, democracies were more common, though many were imperfect. In 1960, most of the poor countries in terms of growth were run by dictators. In the four decades that followed, the growth rates among poor countries varied, and some of them managed to get out of poverty while still being run by dictators.

GLOSSARY

Which Came First–Democracy or Growth?

Dictatorship—government ruled by an absolute authority

Democracy—government by all the people, direct or representative

Political institutions—established governmental customs, laws or practices

Economic freedom—an environment characterized by the protection of private property and the ability of individuals to engage in voluntary exchange of goods and services

Redistributive policies—actions to reduce unequal distribution of income typically carried out by taxing citizens with higher incomes and transferring that wealth to citizens with lower incomes

Economic growth—an increase in a country's production of goods and services

Political freedom—freedom of individuals in a society that is not obstructed by government coercion and that enables individuals to determine who their rulers shall be

Physical capital—resources such as machinery and equipment used to produce goods and services

Human capital— the education, skills and abilities of workers

Government expropriation—the transfer of a citizen's property to the state

Real income per capita—income per person (adjusted for inflation)

Extractive states—governments that depend on extracting natural resources, often by force, for sale or trade

Autocracies—governments in which one person has unlimited authority, such as the power of absolute monarchs

Supporters argue that this evidence suggests that it was not limits on dictators imposed by institutions that led to growth, but rather that dictators chose policies that provided security of property rights to foster investment in physical and human capital—which then led to growth. The study mentions China as an example of a dictatorship in which economic growth has been the result of favorable policy choices and not of institutional limits on the government.

The Debate Continues . . .

The debate about whether democracy and political institutions generate growth or whether economic development leads countries to adopt better institutions is likely to continue. In any event, fundamental features of Western economic systems, such as free markets and the importance of securing private property rights, seem to be safe bets for economies seeking economic growth.

This article was adapted from "Which Came First—Democracy or Growth?," which was written by Ruben Hernandez-Murillo, senior economist, and Christopher J. Martinek, senior research associate, both of the Federal Reserve Bank of St. Louis, and was published in the April 2008 issue of The Regional Economist, *a St. Louis Fed publication.*

CLASSROOM DISCUSSION

1. What are two factors necessary for economic growth?
2. Why might you think democracy fosters economic growth?
3. Which of the two viewpoints—that democracy fosters growth or that economic growth fosters democracy—would be likely to emphasize education as a key component for a growing economy?

Education and Earnings

Q. How are investment in human capital and personal income in the United States related?

A. There is a strong positive correlation between investment in human capital through education and expected earnings. The benefits of education and experience really show up over the long term:

Education Level	Estimated lifetime earnings
Less than 9th grade	$976,350
High school dropout	$1,150,698
Bachelor's Degree	$2,567,174
Master's Degree	$2,963,076
Professional Degree	$5,254,193

Q. Over time, what has happened to the percentage of people in the United States who have finished college and per capita income?

A. As the percentage of Americans who finish college has increased over time, per capita income has also increased. In 1950, per capita income was estimated at little more than $10,000, and the percentage of the population with college degrees was around 7 percent. In 2004, per capita income was estimated at slightly less than $35,000 and the percentage of the population with college degrees was around 28 percent. States that have a higher percentage of the population that are college graduates also have a higher per capita income.

Q. In today's economy, how does investment in physical capital and investment in human capital compare in the United States?

A. Although physical capital once drove the U.S. economy, investment in human capital now takes precedence. In the early days of the country's economic development, most work required muscle power. Today, there is a shift toward more sophisticated jobs that require more brains than brawn. Services now dominate the U.S. workplace and provide 80 percent of the nation's jobs. Although some of the work requires only basic skills, many jobs require handling complex tasks which demands more investment in human capital.

Q. What is the relationship between level of education and unemployment?

A. Americans with more education are less likely to be unemployed. This is especially true in the 25-34 age range of the work force where the jobless rate can be three or four times higher for the high school dropout than the college graduate. Although a substantial difference remains in older age groups, it is not as dramatic because work experience improves employment prospects.

Q. How does having a relatively free economic environment relate to investment in human capital and GDP per capita?

A. Investment in human capital can't achieve its full economic potential without labor market freedom. When companies and workers are free to make job decisions, scarce labor resources are channeled to their best uses, making the economy more productive and allowing investment in human capital to yield greater dividends. This can be validated by a comparison of countries through the Index of Economic Freedom. In reference to GDP per capita and years of school completed, more-free economies have a higher GDP per capita when compared to years of school completed than less-free economies.

Q. What is the Index of Economic Freedom?

A. The *Wall Street Journal* and the Heritage Foundation track levels of economic freedom using the Index of Economic Freedom. The Index ranks the world economies based on 10 categories: business freedom, fiscal freedom, monetary freedom, trade freedom, government size, investment freedom, financial freedom, property rights, labor freedom and freedom from corruption. The higher the index score, the higher the degree of economic freedom in a country.

SOURCE: 2004 Annual Report, Federal Reserve Bank of Dallas, pp. 7-19; www.heritage.org/research/features/index/faq.cfm

1. What is real Gross Domestic Product (GDP)?

Real Gross Domestic Product (GDP) is the market value of all final goods and services produced in an economy during a year adjusted for inflation. GDP is the most comprehensive measure available of U.S. economic activity. Quarterly changes in real (inflation-adjusted) GDP are considered the primary measure of growth in the U.S. economy.

2. What are the components of GDP?

The components include personal consumption expenditures (consumer spending), gross private domestic investment (business investment in structures, equipment and software, and inventories), government consumption expenditures and gross investment (government spending), and net exports (exports of goods and services less imports of goods and services).

3. What is the compounded annual rate of change?

The compounded annual rate of change shows what the growth rate would be over an entire year if the same simple percent change continued for four quarters or 12 months.

4. Which agency is responsible for reporting GDP?

Gross Domestic Product is reported by the U.S. Department of Commerce's Bureau of Economic Analysis. For more information, see www.bea.gov.

SOURCE: Bureau of Labor Statistics Customer Handbook, found at http://www.bea.gov/agency/pdf/BEA_Customer_Guide.pdf

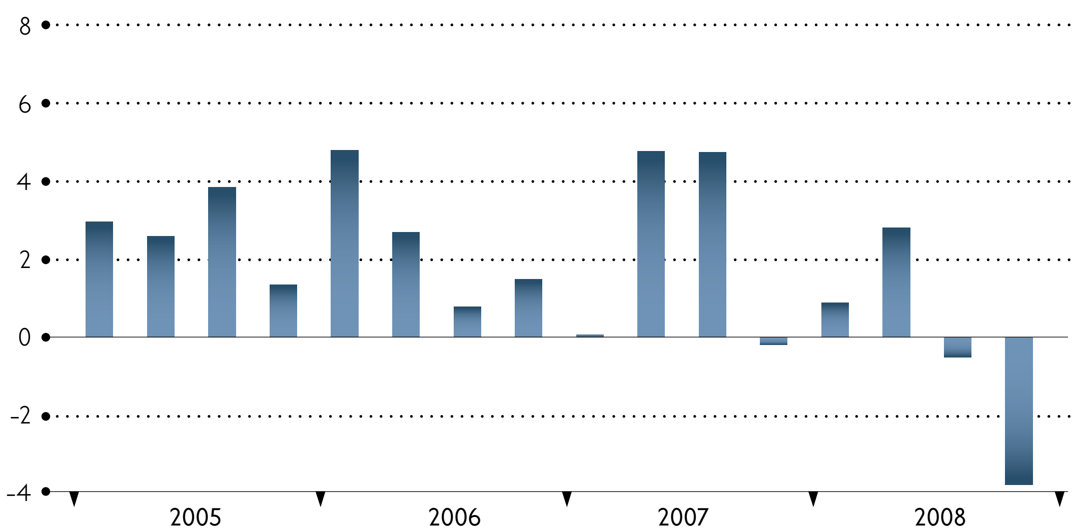
Fourth Quarter 2008

	Q1-'08	Q2-'08	Q3-'08	Q4-'08
Growth Rate Real Gross Domestic Product	0.9%	2.8%	-0.5%	-3.8%*
Inflation Rate Consumer Price Index	4.3%	5.0%	6.7%	-9.2%
Civilian Unemployment Rate	4.9%	5.4%	6.1%	6.9%

**Advance estimate*

Real GDP Growth

Compounded annual rates of changes

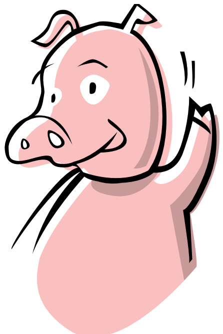


LITTLE ROCK

Pig. E. Bank Economics

May 6, 2009 | 8 a.m. to 4 p.m.
Federal Reserve Bank of St. Louis—
Little Rock Branch
Stephens Building | Little Rock, Ark.

25 Cents' Worth of History teaches Eighth District economics and history using state coins.



To register:

- visit www.stlouisfed.org/education/conferences,
- call Julie Kerr at 501-324-8296 or
- e-mail julie.a.kerr@stls.frb.org.

LITTLE ROCK/LOUISVILLE

It's Your Paycheck!

Little Rock, Ark.
March 11, 2009
Federal Reserve Bank of St. Louis—Little Rock Branch

Bowling Green, Ky.
March 24, 2009
Bowling Green Junior High School

Evansville, Ind.
April 16, 2009
Southern Indiana Career and Technical Center

Learn more about *It's Your Paycheck*, a new high school personal finance curriculum from the Federal Reserve Bank of St. Louis.

For more information, go to www.stlouisfed.org/education/conferences.

Activity-Based Economics:

It's Not the Dismal Science

July 13-17, 2009 | 8:30 a.m. to 4 p.m.
Pulaski Technical College
Little Rock, Ark.

This workshop features microeconomics, macroeconomics, globalization and technology presentations by award-winning economic educators.

For information about this workshop, go to http://economicsarkansas.org/calendar/.

LOUISVILLE/MEMPHIS

Focus on Finance

A personal finance workshop for K-12 educators

April 2–3, 2009
8:30 a.m. to 4 p.m.
Federal Reserve Bank of St. Louis—
Memphis Branch
Memphis, Tenn.

To register, e-mail jeannette.n.bennett@stls.frb.org.

Right Start

An Institute for New and Beginning Teachers of Economics
June 8-11, 2009
Federal Reserve Bank of St. Louis—
Louisville Branch
Crowne Plaza Hotel
Louisville Airport—Kentucky Expo Center
Louisville, Ky.

To register, visit www.econ.org/programs/rightstart.html.

Focus on the Economy

June 23-25, 2009
Millsaps College
Jackson, Miss.

To register, visit www.mscee.org and click on "Focus on the Economy".

Arkansas History and the Great Depression

Curriculum Workshop

A one-day professional development workshop

July 10, 2009 | 9 a.m. to 4 p.m.
Northeast Arkansas
Education Cooperative
Walnut Ridge, Ark.

To register, e-mail jeannette.n.bennett@stls.frb.org.

Kids and Money Workshop

A one-day professional development workshop
July 17, 2009 | 9 a.m. to 4 p.m.
Northeast Arkansas
Education Cooperative
Walnut Ridge, Ark.

To register, e-mail jeannette.n.bennett@stls.frb.org.

ST. LOUIS

Summer School at the Fed

June 8-10, 2009
Federal Reserve Bank of St. Louis
St. Louis, Mo.

To register for this two and one-half day program on the role of government through SIUE, contact Mary Anne Pettit at 618-650-2583 or e-mail mpettit@siue.edu. To register through UMSL, contact Sharon Laux at 314-516-5249 or e-mail lauxs@umsl.edu.

EIGHTH DISTRICT

Annual Educator Conferences

Fiscal Policy: What Does It Mean for the Economy and Why Does It Matter to You?

Louisville, Ky.
July 21, 2009 (grades 5-12)

Little Rock, Ark.
July 22, 2009 (grades K-12)

Fayetteville, Ark.
July 23, 2009 (grades K-12)

Memphis, Tenn.
Nov. 4, 2009 (elementary)
Nov. 5, 2009 (secondary)

St. Louis, Mo.
Oct. 13, 2009 (grades 5-8)
Oct. 14, 2009 (grades 9-12)

This one-day conference will cover the role of fiscal policy in the economy. Robert Rasche, Senior Vice President of Research at the Federal Reserve Bank of St. Louis, will provide content.

For more information, go to www.stlouisfed.org/education/conferences.

LITTLE ROCK/LOUISVILLE/MEMPHIS

Hot Topics in the News Essay Contest

March 18, 2009, is the deadline for entries to the Little Rock, Louisville and Memphis contests.

Bank Contacts

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Barb Flowers
314-444-8421

GDP and Pizza

Economics for Life

The Federal Reserve Bank of St. Louis offers an online course for high school students. The course defines Gross Domestic Product (GDP), explains the difference between nominal and real GDP, defines per capita GDP, explains how economists measure economic growth, and discusses monetary and fiscal policy as related to GDP. This course is designed to help students in civics, economic and social studies classes understand challenging economic content—and explain why these topics are import for citizens to understand.

GDP and Pizza: Economics for Life includes:

- an in-class pre- and post-assessment activity,
- an online pre- and post-test with data reported to the teacher,
- two online class periods of instruction that include reading and self-checks for understanding, and
- video clips of an economist explaining the content.

To participate in a workshop or learn more about the course, contact: Billy Britt in Little Rock at billy.j.britt@stls.frb.org, David Ballard in Louisville at david.b.ballard@stls.frb.org, Jeannette Bennett in Memphis at jeannette.n.bennett@stls.frb.org or Mary Suiter in St. Louis at mary.c.suiter@stls.frb.org.

www.stlouisfed.org/education/gdp.html

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