FOURTH QUARTER 2010

REGION FOCUS

THE FEDERAL RESERVE BANK OF RICHMOND

What Causes Economic Recoveries?

Policy

Confidence

Innovation

REGION FOCUS

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Questions Surrounding the Fed's 'Exit Strategy'

The U.S. economy, despite officially in recovery from the most severe recession since the end of the Great Depression, still shows signs of weakness in the labor market: Nearly 10 percent of Americans are out of work and face very real difficulties. As a result of the relatively sluggish pace of this recovery and because of the low rates of inflation we have been experiencing, the Federal Reserve has continued to pursue accommodative monetary policies. The target for the federal funds rate remains between 0 and 0.25 percent, and in November the Fed decided to expand its balance sheet (which was already more than $2 trillion) by another $600 billion by the end of the second quarter of 2011 through the purchase of long-term Treasury securities. These actions reflected the view that the risk of further economic weakening outweighed the risk of inflation.

Currently, the outlook for inflation remains good. Prices, measured broadly, rose only about 1 percent over the last year, less than half of the rate during the years preceding the recession. Moreover, it appears that market participants believe that inflation will remain relatively low — around 2 percent on an annual basis over the next five years. Nevertheless, the Fed remains steadfast in its commitment to maintaining price stability. Doing so requires varying the degree of monetary accommodation as overall economic conditions vary over the business cycle. As the economic recovery picks up, there will come a time when monetary policy will need to be less accommodative. In short, the Fed must consider an "exit strategy" and be prepared to implement it when growth has become strong and well established.

Decisionmaking regarding monetary policy is always an inexact process. The Fed — meaning both the Board of Governors and the 12 Reserve Banks — employs sophisticated models as well as more "on the ground" anecdotal information to assess the likely path of the economy and which policies to pursue as a result of that evaluation. But the task at hand is particularly tricky. The Fed must be careful not to tighten too quickly, a course that could potentially stifle the recovery. At the same time, it must not be too loose for too long and potentially stoke inflation. In other words, it's not a question of whether the Fed should change course — but of when and how.

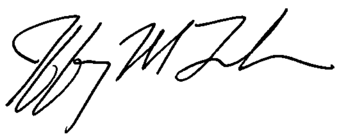
I don't have a rigid timeline about the "when" part of that issue. That will depend upon how the economy behaves in coming months. Most private forecasters are predicting that growth will be roughly 4 percent in 2011. My own view is in line with that.

As for the "how," the central question has to do with sequencing. The Fed has a few options for withdrawing monetary accommodation. It could first raise the interest rate on reserves that commercial banks hold at the Reserve Banks, and then reduce the size of the balance sheet through asset sales. This would put upward pressure on other short-term interest rates since banks would not be willing to supply short-term funds to the money markets at rates significantly below what they can receive by holding reserves with the Fed. Commercial banks' reserve balances would remain elevated, however, due to the delay in asset sales, and this would put downward pressure on interest rates.

An alternative is to begin selling assets before raising short-term interest rates. This approach would eliminate more rapidly the distortions caused by the Fed's intervention in mortgage-backed security markets, and would have the advantage of providing more confidence to market participants in projecting the effects of raising the interest rate on reserves, when the time comes.

My colleagues on the Federal Open Market Committee have discussed the merits of these alternative approaches to withdrawing monetary accommodation, but no decisions have been made. There is a consensus, however, that keeping the federal funds rate near zero indefinitely is not tenable — it will have to rise over time.

Evidence that the economy appears to be picking up pace brings with it weighty questions about how the Fed should respond, just as the financial crisis did. Happily, the questions we now face involve analysis of the pace of recovery rather than the pace of decline. My colleagues and I will give these questions the same careful scrutiny that we did when the economy faced the shocks that led to the recession of 2007-09.



JEFFREY M. LACKER
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Sunbelt Hockey
All-Star Location is a Coup for 'Caniacs'

The National Hockey League's puck stopped in Raleigh last January, when it held its 2011 All-Star Celebration at the home arena of the Carolina Hurricanes. Hosting the sold-out event was something of a coup for Triangle hockey fans, a.k.a. the Caniacs.

The All-Star game wasn't the first time the Triangle has served as a hockey magnet. The Hurricanes hosted the Stanley Cup Final in 2002 and 2006, as well as the NHL Entry Draft in 2004. The Hurricanes won the Cup in 2006, a sweet victory in light of the cancellation of the NHL 2004-2005 season due to a labor dispute. "Fifteen years ago, we had zero hockey presence," says Scott DuPree, vice president for sports marketing for the Greater Raleigh Convention and Visitors' Bureau. "Now we have thousands of fans; the arena draws big."

So big, it drew the All-Star game. The All-Star game and events were about "recognizing a market that's already been successful," says Mike Sundheim, the Hurricanes' director of media relations. The team in 2009 and 2002 was in the playoffs in addition to its Stanley Cup win in 2006. "Nothing builds fan base like a championship."

The NHL began its expansion into the South in the 1990s — the Hurricanes moved from Hartford, Conn. The NHL sought a national footprint to win television contracts as the population shifted to the Sunbelt. It was assumed Northern fans would follow Southern teams, according to Larry DeGaris, associate professor of sports marketing at the University of Indianapolis. It hasn't worked quite that way. The NHL has a three-year contract with Comcast's Versus cable channel, not a major network. Some teams struggle to fill seats, especially during the economic slowdown as corporate demand for luxury seats declined. Today, the Southeast Division includes the Washington Capitals, Carolina Hurricanes, Florida Panthers, Tampa Bay Lightning, and Atlanta Thrashers.

PHOTOGRAPHY: GREGG FORWERCK OF THE CAROLINA HURRICANES

The Hurricanes celebrate after a 4-3 overtime victory over the Atlanta Thrashers in January 2011.

Another problem: When Rangers fans from New York move, for example, to South Florida, they're still Rangers fans, DeGaris says. "They can't go to the [Rangers] games, but they can watch them on television, so they can still be fans, and even participate in the fantasy leagues." But simply because teams have been slow to catch on doesn't mean they're not feasible. "You look at population growth and where the trends are, if you're looking to the future, any strategy has to include the Sunbelt." He points out the proliferation of minor league hockey teams, though those tend to come and go.

Southern teams' attendance lags that of stalwarts like the Detroit Red Wings, of course, DeGaris notes. But the Hurricanes have averaged between 85 percent and 93 percent of capacity since 2006-2007, except 2009-2010, when attendance fell to 81.6 percent, primarily because of the recession, Sundheim says.

Hockey in the South may take time to a build fan base, and some sports bloggers even speculate that attendance numbers are bloated because of giveaways and promotions. But many variables drive attendance and DeGaris believes fan interest is growing. "Hockey is a great live event," he says. "It's like auto racing — it's visceral, you can smell the ice shavings, the Zamboni."

— BETTY JOYCE NASH

Trimming Costs
NC Health Plan Penalizes Obese State Workers

In July, the North Carolina State Health Plan will increase insurance premiums for state employees with a Body Mass Index (BMI) of 40 or higher. The plan covers more than 600,000 state employees, retirees, and teachers.

BMI is the ratio of an adult's weight to height that roughly correlates to the percentage of fat compared to total weight. A person with a BMI of 30 or above may be considered obese, but whether the BMI presents a health risk for an individual would need to be determined by a variety of health assessments, according to the Centers for Disease Control. People who are obese are considered at greater risk for chronic disease, including heart disease, stroke, diabetes, and some types of cancer.

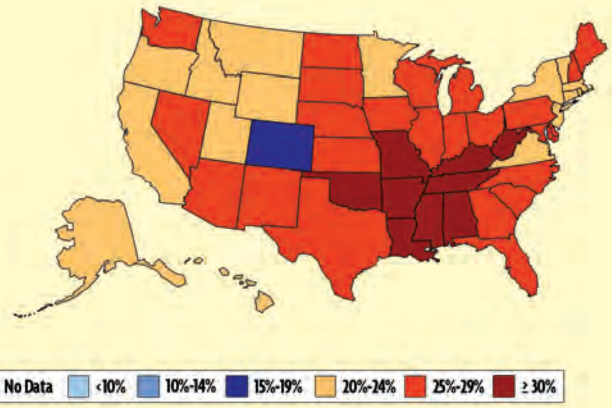
In the past decade, obesity often has been labeled an "American epidemic." According to the CDC's Behavioral Risk Factor Surveillance System (BRFSS), the national median percentage of adults who are obese jumped from 15.9 percent in 1995 to 26.9 percent in 2009. The BRFSS generates a wide variety of health information through monthly telephone surveys conducted by state health departments with technical help from the CDC. Data are aggregated for each state by the CDC.

In the Fifth District, three jurisdictions fall below the national average in their percentages of obese adults: the District of Columbia at 20.1 percent, Virginia at 25.5 percent, and Maryland at 26.8 percent. States above the national average in the Fifth District are South Carolina at 30.1 percent, West Virginia at 31.7 percent, and North Carolina at 30.1 percent. In the Carolinas, percentages of obesity have almost doubled since 1995.

North Carolina implemented its new policy, called the Wellness Initiative, to cut rising insurance costs and improve workers' health. The state Legislature in 2009 rescued the health plan with $250 million to pay bills; the plan is slated for more money from the general fund in the coming year. Currently, state employees of any BMI can choose between two insurance policies with different co-pays, co-insurance, and deductibles. Starting in July, however, all members will be enrolled in one plan, which has higher co-pays and co-insurance; only members who have a BMI lower than 40 can enroll in the alternate plan. Moreover, in July 2012, the BMI requirement will be lowered to 35. This plan also restricts the insurance options for employees who use tobacco and are not actively trying to quit.

North Carolina is doing so because tobacco use and obesity cause the largest number of preventable deaths in the state, according to the state's Web site.

Obesity Trends* Among U.S. Adults



*BMI ≥ 30, or approximately 30 lbs. overweight for a 5'4" person
SOURCE: Behavioral Risk Factor Surveillance System (BRFSS), CDC, 2009

But not all health experts believe the add-on will help. Dr. Eric Finkelstein, deputy director for health services and systems research at Duke-National University of Singapore, doubts that this policy will significantly affect rates of obesity among state employees, but may instead have other benefits. "Few people are going to change their lifestyle over this, in my opinion," Finkelstein says. "They will just pay the additional fee. However, it will help the state health plan because they are essentially charging more money for obese people so it helps defray the associated costs."

Finkelstein in October 2010 published a study in the *Journal of Occupational and Environmental Medicine* that quantified the per-capita cost of obesity among full-time employees at $16,900 for obese women with a BMI over 40 and $15,500 for obese men of the same BMI range. This study concluded that the aggregate cost to employers was $73.1 billion a year. The costs were incurred as a result of employee medical costs, health-related absenteeism, and "presenteeism," where workers report to work yet produce less due to poor health.

Finkelstein has an alternative to combat obesity in the workplace. "I would put incentive strategies in place that encourage people to make healthy choices, like rewards or subsidies for program participation, and I would strongly encourage those choices." Even so, Finkelstein predicts that other states will soon adopt similar policies to those in North Carolina. He also foresees private employers instituting penalties for obesity.

— Becky Johnsen

Coal Conversion
Gas Price Spikes Inspire Technology

A $3 billion coal-to-gasoline plant is slated for Mingo County, W.Va., over objections from environmental groups. The plant will be built by New York-based TransGas Development Systems.

Adam Victor, the company president, says the plant was inspired by Hurricane Katrina's impact on Gulf Coast refineries. "We saw prices for fuel go up four times in one day, and started looking for ways to mitigate our fuel costs," he says.

The firm decided on coal to liquids after exploring other technologies: ethanol, biomass, biodiesel, and wood gasification. The predecessor technology was used in Germany to make synthetic fuel from coal in the World War II until the Allies began bombing the synfuels plants in late 1944 and early 1945.

The TransGas plant is designed to convert coal from the region, an estimated 3 million tons annually, into 756,000 gallons per day of premium-grade gasoline. The process produces methanol, then cleanses it to make a sulfur-free gasoline, according to Victor. The plant expects to employ 3,000 people during construction, starting in June 2011, and 250 thereafter. The plant is likely to be fully operational by June 2015. Victor says the firm plans an IPO on the London Stock Exchange in the second quarter of 2011.

At issue are potential emissions such as carbon dioxide and the plant's classification as a minor source of pollution, a status requiring less scrutiny. The permit is under appeal. Carbon emissions are widely considered a contributor to global warming, and recently finalized carbon regulations by the U.S. Environmental Protection Agency are under way. New emissions standards for cars and trucks were issued in March 2010, effective over the 2012 to 2016 period. New permitting rules for stationary sources, effective Jan. 2, 2011, will require "best available control technology" for major sources of greenhouse gases. By July 1, 2011, a second phase will affect new and modified sources.

The TransGas project has obtained its permit to build and operate the plant from the West Virginia Department of Environmental Protection and will not be subject to the new rule. Though the permit is under appeal, the project will go forward but revisions to the permit could delay its start, according to Ronald Potesta, of the Charleston, W.Va., engineering firm that prepared the TransGas permit application.

TransGas chose its location partly because of supportive infrastructure, such as the King Coal Highway. The current development along the highway includes the Mingo Hybrid Energy Park, where the coal-to-gas plant will locate. The first 10-mile section of the highway will be completed by July 2011, with another five miles expected to be finished by fall 2012. The 15 miles of road is a public-private project, costing about $125 million. Coal company preparation of the roadbed, as part of strip mine reclamation, has reduced the projected taxpayer cost by an estimated $270 million, according to Mike Whitt of the Mingo County Redevelopment Authority. The highway is a 94-mile section of Interstate 73 that ultimately will span the distance from Sault Ste. Marie, Mich., to Myrtle Beach, S.C.

Officials in southern West Virginia hope the highway will invigorate the region's economy. In 2006, mining employed 9.6 percent of workers in the region compared to 20 percent in 1970 and 1980.

—Betty Joyce Nash

Home Economics
Birth Rates Dip Again in 2009

In his studies of the economics of the family, economist Gary Becker has described children as a consumption good. If he's right, it might make sense during a recession for people to put off the baby *and* the new refrigerator.

The moribund economy may have pushed down the United States' crude birth rate, but demographers caution against putting too much stock in the preliminary numbers.

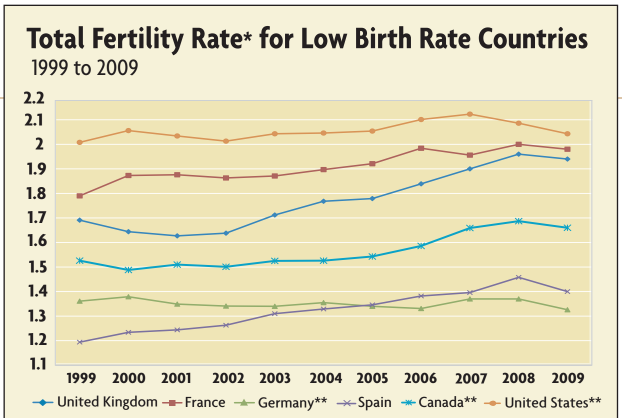
The United States remains on track to maintain population, though births fell from 13.9 births per 1,000 people to 13.5. That was a 2.6 percent decline compared to 2008, which in turn had fallen by 1.6 percent over the previous peak birth year, 2007.

The U.S. birth rate is among the highest of developed countries, but fertility in some European countries had begun to rise. In 2009, most of those nations' rates stayed the same or declined slightly. "Although the drop in fertility has not been across the board, there are many developed countries in Europe and Asia that are experiencing fertility declines similar to that of the United States," says demographer Mark Mather of the Population Reference Bureau (PRB).

Rising wages for female workers and other labor market trends, along with widely available contraceptives, have led to lower fertility rates over the past 30 years. Rates recently had begun to climb in some countries, such as France.

Possible explanations for U.S. declines include increased unemployment that may have slowed immigration or spurred immigrants to leave the United States; the fertility rate for Hispanic women fell by 3 percent in 2008.

The total fertility rate — the average number of children a woman would bear, given current birth rates, over a lifetime — in the United States fell slightly in 2009,



*Total Fertility Rate: average number of children a woman would bear over a lifetime, given current fertility rates
**Estimated
SOURCE: Population Reference Bureau

from 2.086 births per thousand in 2008 to 2.043 in 2009. Birth rates had risen to 2.123 in 2007. Birth rates in low-fertility rate countries also fell. In Spain, for example, where rates had climbed from 1.173 in 1995 to 1.458 in 2008, the total fertility rate in 2009 slipped to 1.400, according to the PRB. That's despite the government's $3,000 per child cash-for-kids program, slated for termination in January 2011. Rates also fell slightly in Germany, France, and the United Kingdom.

A new working paper examines the effects of housing wealth on birth rates. Economists Michael Lovenheim of Cornell University and Kevin Mumford of Purdue University used differences in the timing and size of the housing market boom and decline, over time, across different states. The study finds that for homeowners a $10,000 increase in real housing wealth causes a 0.07 percent increase in fertility. The authors found few effects of housing price growth at the MSA level on the fertility of renters. "That increases in housing wealth are strongly associated with increases in fertility is consistent with some recent work showing a positive income effect on birth," the authors write. Estimates suggest that recent housing market variations could have "sizeable demographic effects that are driven by the positive effect of housing wealth on fertility." Their results were published in a Stanford Institute for Economic Policy Research discussion paper.

—Betty Joyce Nash

New Life for Failed Banks
'Shelf Charters' Let Investors Become Bankers

Bank failures are increasing nationwide, but the Fifth District has fared better compared to other areas of the country. From the beginning of 2008 through the end of 2010, 15 banks in the District (which includes five states and Washington, D.C.) were "resolved" by regulators and the Federal Deposit Insurance Corporation (FDIC). In nearby Georgia and Florida, 51 and 45 banks failed, respectively; eight other states also had double-digit failures. Two of the banks that closed in the Fifth District were acquired not by other established banks, the traditional approach, but instead by approved investor groups participating in a new preliminary charter process.

When a bank fails, the best outcome is acquisition by another institution, which costs the FDIC's deposit insurance fund less and is also less disruptive to the bank's customers. The FDIC maintains a database of potential bidders on failed banks, and once it becomes certain that a bank will be closed, the agency "markets" the bank via a confidential e-mail to potential buyers. (The failing bank is not identified in the e-mail; interested bidders later receive a link to a secure Web site with more details.)

Previously, only groups with deposit insurance — i.e., existing banks — were eligible to bid. But to keep pace with the anticipated number of failures, in the fall of 2008 the

(continued on page 35)

Fifth District Failed Banks	City	Assets (SMILLIONS)	Acquirer	Closing
K Bank	Randallstown, MD	538.3	M&T Bank	Nov 2010
Ideal Federal Savings Bank	Baltimore, MD	6.3	No Acquirer	July 2010
Bay National Bank	Baltimore, MD	282.2	Bay Bank, FSB*	July 2010
Waterfield Bank	Germantown, MD	155.6	No Acquirer	Mar 2010
Bradford Bank	Baltimore, MD	452	M&T Bank	Aug 2009
Suburban FSB	Crofton, MD	360	Bank of Essex	Jan 2009
Cooperative Bank	Wilmington, NC	970	First Bank	Jun 2009
Cape Fear Bank	Wilmington, NC	492	First Federal Savings and Loan Association	Apr 2009
Williamsburg First National Bank	Kingstree, SC	139.3	First Citizens Bank and Trust Company, Inc.	Jul 2010
First National Bank of the South	Spartanburg, SC	682	NAFH National Bank*	Jul 2010
Woodlands Bank	Bluffton, SC	376.2	Bank of the Ozarks	Jul 2010
Beach First National Bank	Myrtle Beach, SC	585.1	Bank of North Carolina	Apr 2010
Imperial Savings and Loan Association	Martinsville, VA	9.4	River Community Bank, N.A.	Aug 2010
Greater Atlantic Bank	Reston, VA	203	Sonabank	Dec 2009
Ameribank	Northfork, WV	115	The Citizens Savings Bank	Sep 2008

*Formed by Hovde Private Equity Advisors LLC and North American Financial Holdings, respectively
SOURCE: Federal Deposit Insurance Corporation

FEDERAL RESERVE

The CRA and the Subprime Crisis

BY RENEE COURTOIS HALTOM

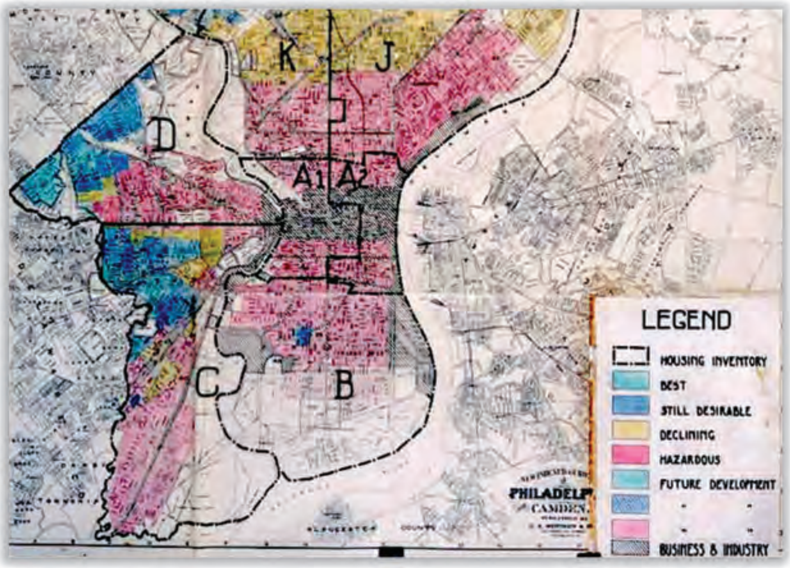
The Community Reinvestment Act didn't cause it, but there are still opportunities for improvement

For more than 30 years, the Fed and the other bank regulators have been responsible for evaluating the extent to which banks meet the lending needs of their communities. The Community Reinvestment Act, or CRA, sets this obligation, and regulators can hold up the expansion plans of banks that fail to perform well, so there is strong incentive for them to comply. Since the CRA may push banks into what are perceived to be riskier lending areas, onlookers ranging from think-tank analysts to policymakers have wondered whether it played a large role in fueling the subprime lending boom and bust. Some critics even say the crisis is proof that the CRA should be abolished, while others argue it played at most a small part in the housing boom and bust of the past decade.

The CRA was originally designed to attack the urban decay that took off after World War II. Policymakers viewed the deterioration of urban cores as partly the result of constrained credit to resident homeowners and businesses. Sometimes this was the result of explicit discrimination through "redlining," which most CRA historians trace back to a 1930s effort by the federal Home Owners' Loan Corporation (HOLC), a New Deal-era organization created to prop the real estate industry.

The HOLC was asked to assess real estate lending risks of 239 U.S. cities. Officials drew color-coded maps based on perceived risks and assigned the color red to the riskiest areas, defined in part as having a high concentration of African-Americans. Although the government retreated from explicitly racial policies after a Supreme Court decision in the late 1940s striking down racial deed covenants, banks mimicked the practice and continued to profile neighborhoods into the 1970s. They applied stricter lending terms to the (typically) minority borrowers within those neighborhoods, or refused to lend at all.

Discrimination wasn't the only cause of constrained credit; market frictions also existed. Borrower risk was harder to assess in the late 1970s when the Act was created, particularly in unpioneered markets. Relatively fewer home sales in underserved areas made real estate appraisals difficult. By the same token, borrowers in lower-income markets tend to have sparser credit history from which to assess risk. The first bank to enter an underserved market had significant work to do to investigate the risks and prospects of borrowers, but once the inroads were made, information proved difficult to keep proprietary. This led to the "first mover" problem in which no bank had sufficient incentive to extend loans or even establish a branch in underserved areas.



The Community Reinvestment Act was created to prohibit redlining, shown in this Philadelphia area map. Banks literally drew a line around certain low-income, often ethnic, neighborhoods and placed limits on lending to them.

HOME OWNERS' LOAN CORPORATION MAP FROM THE RECORDS OF THE FHLBB/NATIONAL ARCHIVES

Thus the CRA was created to induce banks to extend loans that they presumably would not have otherwise. This was rationalized by the government support banks receive through deposit insurance and access to the Fed's discount window. Government and ultimately taxpayer support seemed to imply an obligation to meet the credit needs of entire communities, not just the safest lending risks.

The CRA also fit the spirit of the day. Lawmakers passed the CRA in 1977 amidst a chain of similar laws aimed toward strengthening access to credit services for poorer populations and minorities. Those included the Fair Housing Act of 1968 and the Equal Credit Opportunity Act of 1974, both of which focused explicitly on racial discrimination. The CRA's main provisions omit mention of race, instead focusing more broadly on low-to-moderate (LMI) income communities. The Act states that financial institutions have an "affirmative obligation" to meet the credit needs of the local communities in which they are chartered. In practice, banks are rated on three categories of activity — lending to borrowers in LMI communities, investment in community development, and financial services, ranging from the availability of ATMs to financial education — and how that activity is distributed across neighborhoods and borrowers of different income thresholds. The weights applied to each of those categories vary by bank asset size, but lending — consumer, homeowner, small-business loans, among other types of credit — is weighted highest.

There are no explicit lending quotas under the CRA, but regulators can hold up the merger or expansion plans of a bank that fails to achieve a passing rating of "Satisfactory" or "Outstanding." CRA ratings began to be published in 1989, and advocacy groups began to use the newly available data to protest the plans of banks that did not perform well on CRA exams through the public comment process and merger hearings. This intensified the imperative to perform well on CRA exams, especially after restrictions on interstate branching were lifted in the mid-1990s and bank merger applications surged. Banks responded by ramping up their CRA programs.

The CRA's passage in 1977 was not without controversy. Opponents voiced arguments that aren't much different from those of the CRA's critics today: It would distort markets, unduly burden financial institutions, and encourage, if not mandate, unsound lending. The latter argument has escalated following the subprime mortgage lending boom and bust. Many economists, both supporters and opponents of the CRA, argue that it did not play a large role in the crisis. At the same time, most regulators and community development practitioners agree that its current form is somewhat outdated in the modern financial system.

Does the CRA Lead to Unsound Lending?

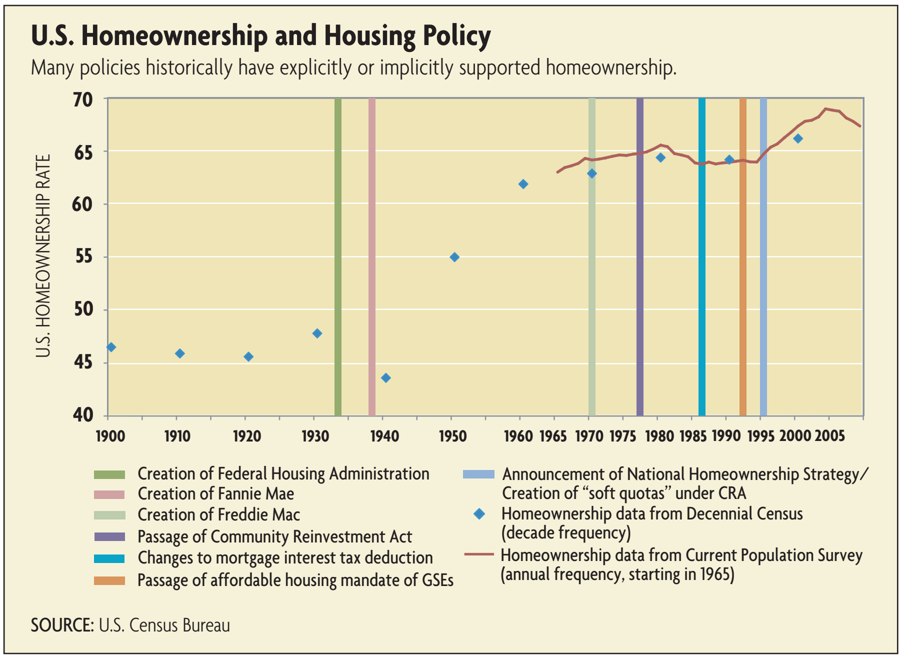
The role of the banking system is to allocate credit to its most productive uses. The modern banking system is generally based on the premise that banks can accomplish this goal most efficiently if they are able to make loans which are most profitable to them within the bounds of safety and soundness regulations. Accordingly, the 1977 CRA language emphasized that all CRA-related loans should comply with normal safety and soundness standards. Rather than inducing banks to extend unduly risky loans, the CRA was couched as a way to force banks to look harder to identify profitable lending opportunities in LMI areas that they otherwise might have avoided. If constrained credit was the result of discrimination and market frictions — as opposed to heightened credit risk in LMI areas — then in theory the CRA could increase LMI lending without sacrificing safety or profitability.

Most studies have found that the CRA had a net positive effect on lending to LMI communities, though some mixed results have stemmed from the difficulty of controlling for the myriad other factors that affect lending. For instance, lending to LMI populations has certainly increased faster than higher income lending, but this could also reflect coincident factors such as fair lending laws and a stronger cultural norm against discrimination.

A 2003 study by economists Robert Avery, Paul Calem, and Glenn Canner of the Federal Reserve Board looked at census tracts, or geographic areas, just above and just below the LMI threshold of 80 percent of median family income. At the 1990 census, tracts just below the threshold had lower homeownership and higher vacancy rates than households just above the threshold. By 2000 there was very little difference between them. The CRA would have focused on households just below the threshold, so the authors conclude that at least part of the improvement in LMI households most likely resulted from the CRA.

It is also likely that the CRA resulted in loosened lending standards in some cases. Critics point to at least one significant change that may have had this effect. The original CRA framework consisted of 12 criteria that granted banks credit for attempts to locate LMI lending opportunities. Critics and advocacy groups argued that banks could skirt the CRA's intent by showing they had investigated loan opportunities without actually making loans. In general, practitioners also thought CRA procedures were too vague to be applied consistently. In 1995, CRA regulations were revised with a focus on measurable lending outcomes, and part of the current assessment criteria includes the extent to which banks use "innovative or flexible" lending practices to extend loans. This specificity made CRA examination and compliance much less costly, and, as the Avery, Calem and Canner study shows, LMI lending increased in the same time period.

But the change came with an unintended side effect, according to former Fed governor Lawrence Lindsey, who oversaw CRA regulation during his tenure. Eventually LMI markets became better served, but the new "soft quotas" did not change. "In fact, it would be a real CRA black eye for a bank to reduce the number of loans it was making in a particular area," Lindsey wrote in a 2009 manuscript on the CRA published jointly by the Boston and San Francisco



Feds. "[G]iven that the most creditworthy borrowers had already received loans, a somewhat less creditworthy group had to take their place. As time went on, lending standards had to be relaxed to avoid any 'backsliding' on an institution's CRA obligations."

But the 1995 changes came more than a decade before most of the financial crisis seeds were sown. There have been no substantive changes to CRA regulations since the mid-1990s to cause a major change in LMI lending trends, yet the subprime crisis is rooted mainly in mortgages extended between 2004 and 2007. That implies other factors caused the more recent boom in subprime lending and deterioration of lending standards. One probable factor is that it became increasingly profitable for all types of mortgage lenders, even those not subject to the CRA, to sell mortgages on the secondary market during the recent boom. After good credit risks were met, it appears lenders may have lowered lending standards in order to continue participating in this booming and profitable market.

Data, too, suggest institutions covered by the CRA were not a large enough part of the subprime market to contribute significantly to the crisis. A 2008 Federal Reserve Board of Governors study analyzed 2006 data made public through the Home Mortgage Disclosure Act (HMDA). During the 2005-2006 peak in subprime lending, half the volume of higher-priced mortgages, which researchers often interpret to reflect subprime borrowers, was originated by nonbank mortgage companies not covered by the CRA. Only 6 percent of all higher-priced loans in 2006 were made by CRA-covered institutions or affiliates to LMI borrowers or neighborhoods in their CRA assessment areas, the researchers found.

Those loans performed better than loans made by nonbanks, research suggests. A study of California data during the boom by San Francisco Fed researchers Elizabeth Laderman and Carolina Reid found that mortgages extended in a lender's CRA assessment area were significantly less likely to be in foreclosure than those extended by independent mortgage companies not subject to the CRA, after controlling for borrower, loan, and neighborhood characteristics. Interestingly, the performance of loans made by CRA lenders relative to non-CRA lenders — a statistical output called an odds ratio — is actually better within banks' assessment areas than outside of them. This may reflect that loans in CRA assessment areas face an additional level of scrutiny by regulators through CRA exams' on-site reviews and file checks, the authors suggest.

Slicing the data in a number of ways suggests that the CRA does not bear large responsibility for the subprime crisis, even if it encourages lower lending standards in some cases. "There are undoubtedly some legitimate criticisms of the CRA regulations in this regard, but responsibility for the credit cycle is much wider and includes the behavior of borrowers and lenders, regulatory breakdown, and political machinations of both parties," Lindsey writes.

Perhaps more important is that the spirit of the CRA is reflective of America's long-standing policy stance in favor of homeownership. Such policies have spanned decades and political parties (see chart). The government has insured mortgages through the Federal Housing Administration, created a vibrant secondary market for mortgages through Government Sponsored Enterprises (GSEs) Fannie Mae and Freddie Mac — in the early 1990s committing those agencies to an affordable housing mandate — and offered a variety of tax benefits reducing the cost of homeownership. Most recently, U.S. homeownership took an upward leap after 1995 when President Clinton adopted the National Homeownership Strategy, the first comprehensive national initiative explicitly designed to push homeownership to record levels. One of the Strategy's many features was an explicit commitment to reducing lending standards for borrowers who would otherwise not qualify for mortgages. Homeownership went from around 64 percent, where it had more or less hovered for decades, to a peak of about 69 percent in 2004 and 2005.

As Lindsey notes, many factors affect homeownership rather than any one initiative. However, taken together these policies may have conveyed ongoing government support of the housing market and reduced the propensity of lenders, markets, and regulators to question loosened lending standards and investment in housing. As a result of the recent fallout, many policymakers, though certainly not all, now say that the "American Dream" of homeownership is not the right choice for everyone despite its benefits to many.

Re-asking the Question

There are better-founded criticisms of the CRA than its role in the subprime lending crisis. It has become clear that the CRA in its current form has not kept up with the fastchanging financial system. Many argue that the CRA's geographic focus is misplaced in an increasingly boundaryless electronic banking system. The share of consumer loans outstanding, for example, that are held by CRA-regulated commercial banks has declined by 40 percent in the last three decades (until the financial crisis, when it recovered some), so the CRA misses a lot of the action. And should lending continue to receive the majority of the weight on CRA exams? The subprime crisis proved that more lending is not always better. Other financial services such as tailored savings vehicles and consumer education could be a better way to support LMI communities.

As academics and regulators consider how to reposition the CRA to fit today's financial landscape, many are also asking again what problem the CRA is intended to solve. Is it meant to correct market frictions? To supplement antidiscrimination laws by altering banks' incentives? To help solve a social problem? The answers to these questions matter for whether and how CRA regulations are updated, broadened, or eliminated.

There is little doubt that the market frictions that appear to have constrained LMI lending are lower today than even 15 years ago. That may partially be a testament to the CRA itself. Banks have become much more skilled at mining profitable lending opportunities in LMI areas. Technological progress and credit-scoring innovations have made it cheaper for banks to assess risks and tailor safe lending products to borrowers who may otherwise be perceived as too risky to consider. Many experts believe the CRA initially helped push banks into lending areas they may have otherwise ignored, eroding some of the information barriers that previously existed. More recently, banks have formed creative partnerships with community organizations in order to identify profitable development and lending opportunities.

These inroads have helped dispel the notion that LMI lending cannot be profitable. A 2000 Board of Governors study commissioned by Congress surveyed large banks about their CRA activity. The 143 responding banks — representing about half the assets of the banking industry at the time — reported that 77 percent of CRA-related mortgages were at least marginally profitable, compared to 94 percent of the portfolio as a whole (including CRA-related mortgages).

To the extent that market barriers are lower today, the CRA in effect acts as a tool for redistribution. Banks pay an implicit tax for that redistribution equal to the considerable compliance costs and any foregone profits from induced lending. Historically, this has been justified, at least for CRA supporters, as a *quid pro quo* in exchange for government and ultimately taxpayer support of the banking system. (This argument also is one reason why nonbank lenders are currently excluded from the CRA.) The stability that government support buys for the financial system is intended as a public good, but banks undoubtedly benefit. Economists asked whether banks adequately pay for this benefit in the late 1990s when lawmakers were considering the repeal of the Glass-Steagall Act, says economist Lawrence J. White of New York University's Stern School of Business. Government support amounts to a subsidy, argued one side, while the other pointed out the considerable regulatory burden associated with being a bank.

"Banks are subject to extensive regulation at least partly *because* they are special, because they have deposit insurance, because they have access to the Fed," White says. "Do banks benefit from being generally the only provider of financial services who get to offer this insurance to their customers? Yes, of course. But there are lots of other costs that are involved in being a depository institution that sop up much, if not all, of the gain," he says.

Even if banks still aren't judged to be adequately repaying taxpayers for that service, White says, why not make the tax explicit and therefore more efficient? "If that's the desire, levy a tax that would go into a CRA fund. Let's be clear and transparent, rather than levy the tax through this vague, opaque process" -- that is, latent redistribution through the CRA.

One positive outcome of the subprime crisis is that the discussions casting undue blame on the CRA seem also to have led policymakers to revisit the law and its possible flaws, bringing immediacy to the resolution of these important issues. **RF**

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JargonAlert

Information Asymmetry

BY BECKY JOHNSEN

In economics, a standard assumption is that market participants have — and base their decisions on — "perfect information." However, in real life, this is not the case; consumers cannot possess all available knowledge concerning all transactions. Even though the assumption of perfect information is widely used, economists have developed methods for studying the behavior of markets with imperfect information. One important kind of imperfection is information asymmetry.

Information asymmetry exists when one party, typically the buyer, has less perfect information than the other. If the price of a good or service does not accurately reflect its quality and the buyer does not possess as much information regarding the product as the seller, this can place the buyer at a disadvantage. The term "information asymmetry" was popularized by George Akerlof in his 1970 paper "The Market for Lemons." This concept was applied further by Michael Spence and Joseph Stiglitz, who, with Akerlof, shared the 2001 Nobel Prize for their work.

Information asymmetry is applicable to many common transactions; a few examples are fixing a car, selecting a college, and obtaining a home mortgage. In each of these instances, the typical consumer weighs the opportunity cost of gathering more information against the potential costs associated with accepting some level of ignorance about the product.

Consider the case of hiring a mechanic. As all car owners know, it would require a substantial investment of time at a trade school or working at a garage to understand a car as well as the average mechanic, so most people do not attempt to make their own repairs. In a worst-case scenario, a dishonest mechanic could overcharge the client and fail to repair the car, resulting in an accident or further damage to the car. However, most consumers seem to agree that this is an unlikely situation, and instead accept the more likely scenario that they may simply be overcharged. As a result, information asymmetry often exists between the average consumer and a mechanic. The consumer does not become fully informed because it would be difficult to do so, and the costs of possibly making a poor decision are acceptably low.

Another significant transaction many people enter into is selecting a college. In this instance, information asymmetry between the buyer, who pays the tuition, and the seller, the college, is largely nonexistent. Here, information is readily available to prospective students and parents. Institutions send comprehensive brochures to students, and a wealth of independent reviews and ranking systems are available on the Internet. Also, the cost of not investigating college choices is particularly high. If a student selects a college that is not a good fit, this may result in a costly and time-consuming transfer to another institution, or years of tuition that could have been better spent elsewhere. In a worst-case scenario, the student may be forced to drop out of college and be unable, for a variety of reasons, to return or attend another. As a result, information asymmetry is largely nonexistent in this market. The consumer seeks to become informed because information is easily accessible, and not doing so creates a large risk that the transaction will fail — a risk that entails significant costs.

Granted, there are limitations to this example; there is information accessible to the consumer only once the student has enrolled in college. It may turn out a school is not a good fit for even a well-informed applicant for reasons that could not have been reasonably predicted. Nonetheless, even in this case, the consumer did everything possible to obtain information equal to that of the college's admissions officer, reducing the possibility of information asymmetry between the two parties.

The final example involves one of the most important purchases most people make: obtaining a home mortgage. As recent issues in the mortgage market demonstrate, there was widespread information asymmetry between many borrowers and their lenders. Even though the terms of a mortgage contract generally are quite explicit, many home buyers find those contracts, especially their most important features, difficult to understand. The costs of not thoroughly understanding the mortgage agreement are large, and may result in years of high-interest payments or even foreclosure. So, the consumer has to make a choice: whether to seek outside help in understanding the contract or simply to trust the mortgage provider. That choice often determines the level of information asymmetry in this market.

These examples illustrate the degree to which information asymmetry is prevalent in many common transactions. In some cases, there are high opportunity costs to spending the time and money to gather information about a purchase, so consumers do not bother with detailed investigations. In other cases, the risks of agreeing to less-than-optimal terms could be highly consequential for a consumer, prompting the consumer to conduct thorough research. Rational consumers must balance these two factors when making decisions in the marketplace. **RF**

ILLUSTRATION: TIMOTHY COOK

Do Natural Resources Support Economic Growth?

BY BECKY JOHNSEN

The management of natural resources is important for all countries, but perhaps especially so for developing countries. From rare earth minerals to oil to diamonds, certain countries have been endowed with resources that theoretically should bestow wealth and trading leverage. Nonetheless, many countries that possess these riches still suffer from poor economic conditions. This phenomenon was labeled the "natural resource curse" by economist Richard Auty in 1993. Since then, researchers have done considerable work on this topic.

"The Natural Resource Curse: A Survey." Jeffrey A. Frankel. National Bureau of Economic Research Working Paper no. 15836, March 2010.

Among the most recent of these articles, Harvard University Economist Jeffrey Frankel consolidates the often-times opposing conclusions on the resource curse into a single survey. In his essay, Frankel cites potential causes of the natural resource curse, as well as examples of both poor and prudent policy decisions to counteract the phenomenon. Finally, Frankel proposes various policies that have never been implemented, but according to much of the existing literature, should be effective.

According to Frankel, the term "natural resource curse" is relatively self-explanatory, that "… the possession of oil, natural gas, or other valuable mineral deposits or natural resources does not necessarily confer economic success." He admits that the term seems counterintuitive, but points to one particular natural resource to help illustrate the term: "… it is best to view oil abundance as a double-edged sword, with both benefits and dangers."

Frankel then identifies the six "channels" which suggest that "possession of natural resources … can confer negative effects on a country, along with the benefits." He begins with one channel that has been much debated among economists, the downward long-term trend in commodity prices. Frankel frames the debate as one between "Malthusianism," the idea that population growth comes at the cost of diminishing stores of natural resources, versus "cornucopianism," the belief that resources are renewable or replaceable.

In the end, Frankel concludes that both sides have their shortcomings. "Malthusians do not pay enough attention to the tendency for technological progress to ride to the rescue. On the other hand, the fact that the Malthusian forecast has repeatedly been proven false in the past does not in itself imply the Panglossian forecast that this will always happen in the future." Because of this, Frankel does not believe that there is conclusive evidence for this to be a factor in the natural resource curse. "[I] largely rejected the hypothesis of a long-term negative trend in world prices, while accepting the hypothesis of high volatility."

Nonetheless, Frankel identifies five other channels that he perceives as plausible reasons for the natural resource curse. The first three are the high volatility of commodity prices, the crowding out of the manufacturing sector as a result of resource specialization, and the fact that "mineral riches can lead to civil war." The final two are that endowments of natural resources can lead to poor institutions, and the Dutch Disease, which suggests that a commodity boom can lead to real appreciation of the domestic currency and increased government spending. Once the boom dies down it is difficult to readjust from appreciation and high spending.

Frankel cites policies that national governments have tried to combat the resource curse, including marketing boards, taxation of commodity production, producer subsidies, other government stockpiles, price controls for consumers and international cartels.

Frankel proposes that some institutions may succeed in a variety of ways and offers three examples that should effectively share risk. These are price-setting in contracts with foreign companies, hedging in commodity futures markets, and denomination of debt in terms of commodity price. He also promotes two means of effective monetary policy: managed floating and alternative nominal anchors.

Finally, Frankel points to several historical examples where governments were successful in mitigating harms associated with the resource curse. First, he cites reserve accumulation by central banks. Next, he discusses Chile's rules for the budget deficit, and then Sao Tome and Principe's sovereign wealth funds. He then points to Alaska's practice of lump-sum distribution in booms. His final two examples are the process of reducing net private capital inflows during booms and the effort to impose external checks. Frankel demonstrates that there are several ways to fall victim to the natural resource curse, but also that a variety of institutions are at a government's disposal.

Frankel avoids generalizations by addressing different channels and institutions in existence by various resource-rich nations. Frankel has a cautiously optimistic conclusion about the natural resource curse. "Needless to say, policies and institutions are influenced by local circumstances, country by country. But with innovative thinking, there is no reason why resource-rich countries need fall prey to the curse." Essentially, through understanding the potential externalities of resource wealth, countries can implement effective policies to escape the resource curse, he concludes. **RF**

Fed Launches Round Two of 'Quantitative Easing'

BY RENEE COURTOIS HALTOM

What can monetary policy do to stimulate the economy when interest rates are as low as they can effectively go? Typical recession protocol would have the central bank lowering interest rates in an effort to boost investment and consumption, and therefore economic activity and employment. But the Fed's main policy tool, the federal funds rate, has been at the so-called zero bound since December 2008. For the past two years the Fed has had to rely on alternative tools to ease lending conditions in an effort to stimulate the economy.

For years, the zero bound was only a hypothetical curiosity in the United States, though Japan in the 1990s provided a real-world case study of the zero bound in action. Then, as now, economists centered on "quantitative easing" as a policy option. The phrase has traditionally referred to when the central bank infuses the banking system with excess reserves. Under normal policy conditions, the Fed would carefully tweak the supply of reserves to achieve the target federal funds — the rate at which banks lend those reserves to each other — through the forces of supply and demand. But if the target rate is zero, the Fed can instead flush the banking system with excess reserves in hopes that banks will lend those reserves and, as a result, stimulate the economy.

The first round of quantitative easing started between November 2008 and March 2010 when the Fed purchased $1.75 trillion in agency mortgage-backed securities and longer-term treasuries. The economy remained weak by the end of 2010, however, with very high unemployment. To provide additional stimulus, the Fed announced its second round of purchases after its Nov. 3, 2010, policy meeting. This round has come to be known colloquially as "QE2."

The Fed plans to purchase another $600 billion — just longer-term treasuries this time — by the middle of 2011, or about $75 billion per month. This is intended to lower longer-term interest rates in the economy through two primary channels. First, the purchases are ostensibly large enough to affect the overall market price for longer-term Treasury bonds, equivalently pushing down their interest rates, as well as rates on assets that are close substitutes. In this way, the manner in which QE2 affects the economy — through indirect influence on overall market interest rates — is not largely different from normal monetary policy when the Fed is not facing the zero bound.

Second, QE2 is designed to be a complement to the Fed's ongoing, stated intention to keep interest rates low for a long time to come. Long-term rates are partially a function of what financial markets expect future short-term rates to be. The Fed has said in its policy statements that it is likely to keep rates unusually low for an "extended period," and through QE2 the Fed is quite literally putting its money where its mouth is.

> QE2 is designed to be a complement to the Fed's ongoing, stated intention to keep interest rates low for a long time to come.

As with any policy move, QE2 comes with risks. Perhaps the largest concern raised by critics is that QE2 could be inflationary. The Fed pays for the asset purchases by crediting the seller banks' accounts with the Fed. If banks decided to lend those funds out, the money supply would increase, which tends to produce inflation, all else equal. But several Fed officials have argued that there's little reason to expect banks to suddenly lend the new reserves; there are already plenty of excess reserves floating throughout the banking system that banks have thus far declined to lend. This might dampen the probability of increased inflation. Also, the Fed has tools — namely, the ability to pay interest on reserves — to very quickly induce banks to hold on to excess reserves rather than lend them. Given these factors, Chairman Ben Bernanke argued in a recent *60 Minutes* appearance that the risks of inaction are far greater than the risk of inflation.

As noted, the magnitude of the effect of QE2 on long-term rates is uncertain. A New York Fed study found that the first round of asset purchases led to "economically meaningful and long-lasting" reductions in various types of long-term interest rates, while economists James Hamilton and Jing (Cynthia) Wu of the University of California-San Diego found a smaller but still negative effect. Explaining the uncertainty, at least partially, is that the first round of purchases took place in the tumultuous aftermath of the financial crisis, making it hard to single out the effects the asset purchases had.

Much of the strain of the financial crisis has since eased, so the effects of this round of easing on long-term rates may ultimately be easier to estimate. The effect on employment will be harder to discern. Would-be employers continue to grapple with a number of complications, not least of which is uncertainty surrounding the future course of the economy and, potentially, other policies both related and unrelated to the weak economy. For that reason, the Fed will keep an eye on the program — and potentially adjust the scale of asset purchases as economic conditions change. **RF**

The Double Whammy of Foreclosures

BY CHARLES GERENA

"The Impact of Foreclosures on the Housing Market." Daniel Hartley, Federal Reserve Bank of Cleveland Economic Commentary 2010-15, October 2010.

If a foreclosure notice is tacked onto the door of your neighbor's house, there's a good chance the value of your house will be affected as well. There are two reasons for this, and research by Cleveland Fed economist Daniel Hartley suggests that local housing markets may determine which one is more important for owners, lenders, and policymakers to address.

One way that foreclosures can decrease property values is by suddenly increasing the supply of available homes in a given market. This supply shock may lower prices and/or increase the time that houses remain on sale. At the same time, the people who lose their homes may not be in the market for another house. They are less creditworthy and prohibited for several years from getting certain mortgages like FHA loans.

"This means that the former homeowner will most likely rent or move in with family for a number of years," notes Hartley. "This is important because unless the foreclosed home is converted to a rental property, the foreclosure will result in an additional home on the market, but no addition to the pool of potential buyers."

Another way that foreclosures reduce neighboring home prices is by making a community less desirable. A foreclosed home may not be maintained as well as surrounding properties or sit unoccupied, attracting criminal activity. This is known as a "disamenity," the opposite of amenities like good schools that boost a neighborhood's home values.

But which mechanism is more important, the supply shock or the disamenity effect of foreclosures? Hartley tackled this question by studying a decade's worth of housing transactions and foreclosures in Chicago. He found that in neighborhoods with a low vacancy rate, foreclosures lowered property values by way of the supply effect while the disamenity effect was near zero. The opposite was true in neighborhoods with high vacancy rates — foreclosures lowered prices by way of the disamenity effect and the supply effect was almost nonexistent.

Hartley's finding suggests different policies might be necessary to stem the negative effects of the foreclosure wave. "In low-vacancy-rate neighborhoods ... the best strategy may be to meter out the foreclosed properties at a rate slow enough to avoid flooding the market," he notes. "In contrast, in high-vacancy-rate neighborhoods ... the most important issue is making sure that properties are kept up and do not sit vacant."

"Improving Survey Measures of Household Inflation Expectations." Wändi Bruine de Bruin et al., Federal Reserve Bank of New York *Current Issues in Economics and Finance*, vol. 16, no. 7, August/September 2010.

Whether you decide to go shopping or keep your savings in the bank is likely dependent on what you expect the value of your money to be in the future. That's one reason why many economists — especially those at the Federal Reserve — try to estimate inflation expectations.

One approach is to find out what people think about future prices through consumer surveys. Four years ago, the New York Fed joined researchers at the Cleveland Fed and other institutions to analyze and hopefully improve existing surveys of consumers' inflation and wage expectations. Details of the project were published by the New York Fed.

The survey, administered since November 2007, has, among other things, confirmed earlier findings of differences in inflation expectations across demographic groups. Furthermore, it has revealed a decline in the uncertainty of consumers' expectations since mid-2008 and a persistent expectation that real wages will decline. The researchers plan future work to help predict "how consumers respond to specific price changes and other new information as well as to economic and financial developments."

"The State of State and Local Government Finance." Ronald C. Fisher, Federal Reserve Bank of St. Louis *Regional Economic Development*, October 2010, vol. 6, no. 1, pp. 4-22.

The public sector was hit hard by the recent recession and will face major challenges in managing its budgets during the next decade. "In the short run, taxes may be increased to restore fiscal stability as the economy recovers," noted Ronald Fisher, an economist at Michigan State University, during his keynote address at an April 2010 conference co-hosted by the St. Louis Fed. His remarks were published in a special issue of one of the Bank's journals, *Regional Economic Development*.

Fisher continued: "Of course, tax increases alone will not be enough. Several options have been widely discussed, including redesigning corrections systems, reconsidering public employee pension and benefit plans, broadening tax bases, building more substantial fiscal reserves ... and even reorganizing local government structure."

As for the long run, municipalities and states may have to reconsider how they spend money on things such as health care, education, and criminal justice as well as how to reform their sales and income tax systems. **RF**

WHAT CAUSES RECOVERIES?

How good policy and good luck can trigger the upward side of the business cycle

BY DAVID A. PRICE

PHOTO ILLUSTRATION: GETTY IMAGES

In the 1870s, the English economist W. Stanley Jevons studied a century and a half of trade data and concluded that recessions of the English economy were caused by the cycles of solar activity. He was "perfectly convinced," he wrote, that recessions "depend upon meteorological variations of the like period, which again depend, in all probability upon cosmical variations of which we have evidence in the frequency of sunspots, auroras, and magnetic perturbations."

Regrettably, astronomers revised their estimates of solar cycles, and Jevons's theory did not survive the revision. An American economist, Henry Moore of Columbia University, fine-tuned Jevons's theory in 1923, giving a predominant role in recessions to the cycles of Venus in the Earth's skies. This theory, too, failed to outlast extended contact with the data.

The discipline of economics has come a long way since then in its ability to account for recessions. Macroeconomists today consider the interaction of variables such as inventories, wages, interest rates, investments, and, of course, profits. They also look at "exogenous" variables — factors hitting the system from outside — such as technological changes, fuel-price shocks, and changes in tax policy. The literature on recessions is voluminous; indeed, if all the articles about recessions in the EconLit database were laid end-to-end, they would reach all the way to … well, they would reach awfully far.

Economists have had less to say about recoveries, however. "Most of macroeconomics presumes that the economy reverts [to growth] following a shock all by itself," wrote University of Chicago economist John Cochrane in the 1994 edition of the *NBER Macroeconomics Annual*. "For this reason, we usually focus on the shocks that *start* recessions and their propagation mechanisms, but almost never … on policies and shocks that *end* recessions."

Cochrane's observation a decade and a half ago still holds true today. When economists speak of recoveries, they typically characterize them simply as a resumption of the natural state of the economy: growth.

Monetary Policy

Do economists have anything more to say about the causes of recoveries, and the factors determining their strength? Is good policy simply a matter of taking away the cause of the recession? Are all recoveries the result of wise monetary, fiscal, or regulatory interventions? What are the nonpolicy forces, if any, that spark recoveries? Even though these questions have not been studied by economists as much as one might expect, there is enough literature and historical precedent to supply some tentative answers.

A leading paper on the subject by Christina and David Romer of the University of California at Berkeley — aptly titled "What Ends Recessions?" — examined the eight recessions that had occurred in the United States between 1950 and the paper's publication in 1994. (Christina Romer was chair of the President's Council of Economic Advisers from January 2009 to September 2010.) The Romers looked at measures of fiscal policy and monetary policy and ran several regressions comparing the economy's actual behavior with the GDP figures that would have resulted if policymakers had followed a hypothetical baseline policy. The results indicated that monetary policy had a potent, "crucial" effect on recoveries; for each one-percentage-point fall in the real federal funds rate, the researchers concluded, real GDP increased between 1.5 percent and 3.0 percent on average during the first year of recoveries. Conversely, the monetary tightening that typically occurred before the peak of the cycle had persistent effects that reduced growth during the recovery.

With regard to discretionary fiscal policy, in contrast, the results indicated slight effects on GDP except during the 1973-1975 recession. The Romers thus attributed to discretionary fiscal policy "at most a small role in recoveries." They found a greater role for automatic fiscal stabilizers, such as the decreases that take place in tax collections during a recession as incomes fall, and the increases in payouts of welfare and unemployment benefits; these automatic changes in fiscal policy added an average of 0.6 to 0.9 percentage points to GDP growth during the first year of recoveries.

The researchers did not attempt to measure the effects of nonpolicy factors on recoveries. Instead, they lumped the effects of nonpolicy factors together as a residual value and found that such factors appeared to have "little effect on growth."

When economists speak of recoveries, they typically characterize them simply as a resumption of the natural state of the economy: growth.

Clean Balance Sheets

Other economists who have studied recoveries, however, believe that factors apart from monetary policy and automatic fiscal stabilizers — including both policy and nonpolicy factors — play important roles in determining the recovery process. High among these are balance sheets: those of companies, consumers, and the government. When it comes to igniting a recovery, clean balance sheets are like kindling; overburdened ones are like asbestos blankets.

George Perry and Charles Schultze of the Brookings Institution, in a 1993 article in the *Brookings Papers on Economic Activity*, looked at the recovery following the recession of 1990-1991 and concluded that recovery was being inhibited in part by the balance-sheet problems of highly leveraged businesses. They noted that when interest payments become high in relation to cash flow, the firm tends to become less willing to invest. Even if the spirit is willing, moreover, the flesh becomes weak: On account of their balance sheets, highly leveraged firms that do seek to continue to expand must contend with impaired access to additional credit at attractive interest rates.

Although the ratio of corporate debt to GDP had peaked in early 1991 and declined since then, Perry and Schultze argued that the decline was primarily due to falling interest rates — and that firms with already debt-heavy balance sheets might well be apprehensive of those rates bouncing back up. Those apprehensions, in turn, would curtail investment on the part of those firms and thus slow any recovery.

Benjamin Friedman of Harvard, commenting on Perry and Schultze's article, noted that during the six-year period leading up to the 1990-1991 recession, more than half of the net value of bonds issued by U.S. nonfinancial companies essentially paid down equity. Such debt burdens, Friedman argued, "would impair the economy's ability to mount a sustained recovery after the recession ended."

The balance sheets of consumers are even more significant, argues an unpublished 2010 paper by Steven Gjerstad and Vernon Smith of Chapman University. Gjerstad and Smith surveyed post-war recoveries and concluded that new residential construction is the primary transmission channel for monetary policy during both downturns and recoveries — and thus, if households' balance sheets impair their ability to spend, monetary easing will have at most a minor effect. "When household balance sheets are damaged in the aftermath of a serious housing bubble and collapse," Gjerstad and Smith conclude, "households remain unresponsive to accommodative monetary policy as their focus turns to de-leveraging rather than borrowing for new housing assets or durable goods."

Countries, of course, have their own balance sheets, which could hamper a recovery if national debt is excessive, according to macroeconomic forecaster and analyst Allen Sinai of Decision Economics. "You can have a credit crunch in terms of the ability of the government to finance its operations through Treasury issues and/or the ability of the private sector to obtain financing, because foreign investors don't want to invest in a country where the credit risk is high, the currency is going down, and there's a big overhang of debt," says Sinai. "It's a risk of us tumbling back down into a downturn, as may happen to some of those countries that have had to impose fiscal austerity because of the nature of their sovereign problem."

For the quickest and strongest recovery, Sinai says, "We need to be in a situation where we're not financially compromised — either households, companies, financial intermediaries, or government."

Confidence

A second factor with a major role in the recovery process is confidence — what John Maynard Keynes called "animal spirits." When Harvard's Lawrence Summers was director of President Obama's National Economic Council, he argued in a speech that "panic and fear" are major obstacles to recovery. "Businesses, consumers, and investors need to feel both that recovery can be sustained and that the economy is returning to a long-run sustainable path," Summers maintained. "I cannot overstate the importance of confidence."

For Summers, building confidence requires fiscal and monetary discipline. Federal policymakers, he argued, can contribute to confidence by eschewing any policy that might "call into question our national commitment to sound money, noninflationary growth, and sustainable devolution of government debt." In addition, Summers suggested, policymakers can build confidence by resolving policy issues as quickly as possible to minimize periods of policy uncertainty.

Confidence can be built, but it can also be torn down. If political leaders can build confidence — and thus potentially spur investment — by expressing support for policies that businesses and investors perceive as helpful (and then consistently carrying those policies out), they can also destroy confidence with words that appear to be a prelude to adverse policy. The Panic of 1907 and its aftermath illustrate the role of language in building confidence — or undermining it. Robert Bruner, dean of the Darden School of Business at the University of Virginia and co-author of the 2007 book *The Panic of 1907: Lessons Learned from the Market's Perfect Storm*, says that the panic led President Theodore

Roosevelt to rein in his populist rhetoric and to seek instead to reassure the business community.

"'Malefactors of great wealth' is a phrase of Teddy Roosevelt's that echoes down through the decades," Bruner says. "This and other phrases and speeches reached an intensity in late 1906 and early 1907 that truly threatened the investing public. The president in the first 10 days of the panic itself finally caught on that perhaps he had overdone the attack on wealth and Wall Street, and began to issue public statements to the effect that 'we trust in the wisdom of financial leaders to set things right.' But once the genie was out of the bottle, it proved very difficult for the utterances of the President to simply restore the faith of the public in the ability of the private market to achieve the outcomes they hoped for."

Or as the late Walter Wriston, formerly chief executive officer of Citicorp (now Citigroup), phrased it, "Money goes where it is wanted and stays where it is well-treated."

Consumer spending, like business spending, is influenced by confidence. Christopher Carroll of Johns Hopkins University found in a 1992 study that consumer pessimism about unemployment leads — not surprisingly — to less consumption. Using regressions that incorporated data from the U.S. Commerce Department National Income and Product Accounts and the University of Michigan's Survey of Consumers, Carroll found that an expectation of rising unemployment rates leads consumers to prefer an increase in savings and to avoid an increase in debt. A level of indebtedness that consumers find acceptable during boom times may amount to recovery-killing "debt overhang" in recessionary times, Carroll found — if consumers lack confidence in the future.

Good Shocks

A third factor with a significant role in recovery is positive exogenous shocks to the economy. Just as negative exogenous shocks, such as the sharp sudden increases in fuel prices of 1973, can push economic activity downward, good exogenous shocks can help GDP recover. Such shocks could include a surge in foreign investment or an increase in skilled immigration that fills critical needs. Peace, such as the end of the Cold War in the 1990s, can also constitute a good shock.

The fact that these shocks are commonly labeled "exogenous" doesn't mean that policymakers must simply wait around for them to happen, however. When economists call such shocks "exogenous," they are speaking a bit casually, since the applicability of the term depends on how one defines the system. These shocks may be outside the influence of fiscal and monetary policy (although even that is arguable), but they are not necessarily beyond the influence of policymaking in general. Foreign investment, for instance, is affected by, among other things, tax policy and currency-repatriation policy.

Moreover, where policy cannot influence whether an event happens, it may still influence the *effects* of the event: Even a natural disaster — the classic example of an exogenous event — might or might not be exogenous from the standpoint of a macroeconomic model since the effects of a natural disaster are influenced by policy factors such as building codes and investments in forecasting systems.

Perhaps the ultimate good shock is technological innovation. That was the thesis of Harvard University's Joseph Schumpeter, who held, starting in a series of articles in the 1910s, that the growth phase of business cycles is brought about by entrepreneurial innovation; successful innovators spur economic activity not only through their own efforts, but also by inspiring imitators, all of which creates a surge of investment.

Schumpeter regarded the growth of railroads, and the investment and development they generated, as a clear case of this process during his lifetime. A modern-day example is the aftermath of the 1990-1991 recession, which initially was followed by a weak recovery; in the years immediately following the trough, growth was at less than half the rate of the recoveries of the 1960s and 1980s. Only with the Internet boom of the mid-1990s — driven by the commercialization of the World Wide Web — did the recovery catch up to historical norms.

What Happened to Joe Palooka?

Historically, recessions during the post-World War II era were followed by rapid GDP growth. The fastest growth, moreover, occurred after the deepest recessions. Princeton University's Alan Blinder, writing in 1984 about the Reagan recovery, called this regularity the "Joe Palooka effect" in reference to an inflatable punching bag with an image of the cartoon boxer Joe Palooka on it. "Because he was weighted at the bottom, he snapped right back when you punched him to the floor," Blinder explained. "And the harder you hit him, the faster he came bouncing back."

Mr. Palooka hasn't been taking punches like he used to; the recovery from 1990-1991 recession was the first of three disappointingly slow recoveries. Growth during the first two years after the 1990-1991 and 2001 recessions were just 2.1 percent and 2.2 percent respectively — far shallower than the same periods during recoveries of the 1950s through the 1980s, which often brought growth rates higher than 6 percent. Growth following the 2007-2009 recession also has been relatively weak and by some measures appears to be slowing further. The 1990-1991 recession also saw the advent of the so-called "jobless" recovery, as employment did not grow substantially during the year after the recession's end — a pattern that, too, repeated itself after the 2001 and 2007-2009 recessions

Hypotheses abound. Sinai of Decision Economics suggested in an *American Economic Review* article in May 2010 that businesses may have become reluctant to hire, even during a recovery, on account of both the increasing cost of labor (when benefits and payroll taxes are factored in) and the proliferating substitutes for traditional hiring,

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Debts and Defaults

The growing market — and tab — for student loans

BY BECKY JOHNSEN AND JESSIE ROMERO

After the financial crisis, consumers curtailed their credit card debt. However, as the economy has recovered, another form of debt has grabbed attention: student loans. In June 2010, for the first time in history, total student loan debt, at more than $850 billion, exceeded credit card debt, estimated at less than $830 billion. The statistic was first reported by Mark Kantrowitz, publisher of FinAid.org, a leading resource on student financial aid. The finding was one in a series of sobering statistics concerning student loan debt.

Last year, the U.S. Department of Education released its *2007-2008 National Postsecondary Student Aid Study* (NPSAS). The NPSAS data show that the average loan debt of four-year undergraduate borrowers was $20,200 at public institutions, $27,650 at private nonprofit institutions, and $33,050 at private for-profit institutions. This represents increases of 20 percent, 29 percent, and 23 percent, respectively, since 2004. In total, the data showed that about two-thirds of graduates from four-year institutions had student loan debt.

Despite increases in public awareness and federal support, students seem less able to manage these debts. Although student loan debt is not dischargeable through bankruptcy under current law, a number of borrowers stop making payments regardless. In early September 2010, Secretary of Education Arne Duncan announced that the 2008 national cohort default rate on student loans increased to 7 percent, the highest rate since 1997. Defaults increased from 5.9 to 6 percent for public institutions, from 3.7 to 4 percent for private institutions, and from 11 to 11.6 percent for for-profit schools. The high default rates at for-profit institutions in particular have sparked a debate in Congress to regulate these institutions.

The official cohort default rate counts only people who default within two years of beginning repayment. (A cohort is composed of borrowers who enter repayment within the same fiscal year.) Because many people default in later years, the actual number of defaults is much greater. Beginning in 2012, the official rate will cover a three-year window, and preliminary data put the rate nearly 70 percent higher.

These figures point to a growing problem with postsecondary student debt on a national scale. In the Fifth District, students in Washington, D.C., graduated with an average debt of $29,793 per student, versus the national average of $23,200. (The data are based on where the student attends college, not on home state; Washington, D.C., has only one public university.) In West Virginia, 73 percent of students graduating from college had debt, compared with 67 percent nationally. According to the NPSAS, however, the rest of the District had both lower average student debt levels and a lower proportion of students with debt in 2008 (the most recent data available).

The Federal Loan Market

Most student loans are provided by the Department of Education. The Higher Education Act of 1965 established the Guaranteed Student Loan Program (now called the Federal Family Education Loan Program, or FFELP) to encourage college attendance. Through FFELP, a student borrows from a private lender, but the government guarantees the loan against default and guarantees the lender a "competitive" rate of return, enabling the student to borrow more cheaply. In 1993, the Department of Education also began lending directly to students via the Federal Direct Loan Program (FDLP). Schools could participate in FFELP or FDLP, and within five years, 35 percent of new loan origination was through the direct lending program. By 2006, though, that number dropped to 20 percent, which many attributed to aggressive marketing and incentives offered to schools by lenders. (The federal government also issues Pell grants, which do not have to be repaid, to students with demonstrated financial need. The maximum award in 2010-2011 was $5,500, depending on the student's eligibility.)

When the financial crisis hit in 2007, many lenders exited the market, or failed entirely, because they could not raise capital by selling student loan asset-backed securities (SLABs). Government caps on interest rates also prevented them from covering higher lending costs. To ensure students' access to credit, the Federal Reserve allowed financial institutions to use SLABs as collateral, and Congress allowed the Department of Education to buy loans from lenders. Many schools reapplied to the direct lending program, and FDLP increased more than 50 percent by the end of 2008. At the end of fiscal year 2009, the Department of Education was guaranteeing $457 billion in loans, offered by 2,900 different private lenders. The department's direct loan portfolio was $153 billion, up from $110 billion in FY 2008.

A provision of the recent health care act eliminated the guarantee system and required all institutions to switch to direct lending programs as of July 1, 2010. By issuing all federal loans itself, rather than guaranteeing the loans of third-party lenders, the government estimates it will save more than $60 billion over 10 years, which has been pledged to expanding need-based grants and debt relief efforts. Critics of the legislation are concerned about limiting

PHOTOGRAPHY: GETTY IMAGES

students' choice in borrowing and the potential loss of thousands of jobs in the loan industry.

Alternative Loans

Students face a complicated array of federal loan options. The primary types are subsidized Stafford loans, where the government pays the interest while the student is in school, and unsubsidized Stafford loans, where interest payments can be added to the principal and deferred until graduation. The loans have different limits based on whether the student is an undergraduate or graduate, dependent or independent, and the student's year in school. Dependent undergraduates can borrow up to $31,000 in aggregate, and independent students can borrow up to $57,500. (Generally, dependent students are unmarried undergraduates who rely on their parents for financial support.) With the cost of attendance averaging $12,283 per year at public institutions and $31,233 at private institutions, some students have turned to "private" student loans to make up the difference.

Financial aid experts counsel students to take out federal loans, which have fixed interest rates and more flexible repayment terms, before turning to private lenders. (The private loan market has also faced allegations of predatory lending and collusion with college aid offices). Still, private lending made up more than 20 percent of all new student lending for much of the last decade, and private loans make up 20 percent of current loans outstanding.

While private loans can close the gap between federal aid and college tuition, one-fifth of private borrowers haven't exhausted their federal eligibility, and more than 10 percent haven't applied at all for federal loans. Reasons may include the complicated Free Application for Federal Student Aid (FAFSA), confusion about loan options and limits, or a perception that only students with financial need can borrow. Private lenders also advertise low introductory rates, instant credit approval, and easy application processes.

The rapid increase in private lending has been followed by an even greater decrease. Sallie Mae, the largest private lender in the United States, reported a 68 percent drop in originations from 2007 to 2010, and private lending overall has decreased by nearly a third. The drop is largely due to the lack of demand for SLABs, but also reflects stricter underwriting standards.

The future of the private loan market is uncertain. New regulations, including greater oversight and more lenient bankruptcy discharge rules, may make student lending less attractive. (Because the only thing students have to offer as collateral is their future earnings, the rules are designed to protect the lender's claim on that collateral. Pending legislation would make it easier for borrowers to discharge private loans, although federal loans would be unaffected.) But there are signs of recovery in the securities market, and the end of FFELP may spur lenders to seek out new business in the private market. For students, federal lending and need-based grants are still well below the cost of attending college, and even the newly simplified FAFSA form still has more than 100 questions on it.

What's Behind the Increase?

Several factors are driving the increase in student borrowing. On the demand side, increased emphasis on the importance of higher education has coincided with an increase in college costs: More students want to attend college, and they need more money to do it. In the last 10 years, prices for undergraduate tuition and fees have risen between 34 percent and 46 percent at public institutions and 31 percent at private institutions (adjusted for inflation). College costs have outpaced overall inflation, and room and board has increased more for students living on campus than off campus, which suggests that college costs have also outpaced the cost of living. Still, a $20,000-plus debt may be a rational investment. A report by Georgetown University's Center on

Demand for Graduate School Rises, as Does Its Costs

Rising student debt is not isolated to undergraduate education. Prospective graduate students face many challenges, such as increased competition for admission and higher costs, which may threaten their ability to enter and then remain in a graduate program.

According to a report by the Council of Graduate Schools, applications for admission grew by 8.3 percent between 2008 and 2009; enrollment grew by 5.5 percent.

A 2010 report released by the U.S. Department of Education's National Center for Education Statistics revealed that from 2000 to 2008, the average total price of attendance for graduate school, adjusted for inflation, increased by 52 percent, from $14,900 to $22,700 annually. Perhaps not surprisingly, law and medical programs were the most expensive, at $44,900 and $43,100 respectively.

And the growing price of graduate education shows in students' borrowing habits. In 2000, 30 percent of graduate students took out loans; the average annual loan was $13,500. In 2008, almost 43 percent of students took out loans, the average being $18,500. For professional school students, these figures were much higher. In 2008, almost 82 percent of law and medical students took out loans, with the average topping $30,000.

A 2010 report published by the Census Bureau stated that in 2008, those with advanced degrees earned about $25,000 more than bachelor's degree recipients and over $50,000 more than high school graduates. So, while a postsecondary education usually bolsters earnings, financing that education raises difficult choices for many students not just at the undergraduate level, but also at the graduate level. — BECKY JOHNSEN

Education and the Workforce estimates that 63 percent of jobs will require a four-year degree by 2018, and the College Board calculates that four-year college graduates earn on average almost $20,000 more per year than high school graduates.

Some economists, including Andrew Gillen of the Center for College Affordability and Productivity, a nonprofit research organization in Washington, D.C., argue that tuition hikes are an effect, rather than a cause, of increased student borrowing. In a 2008 policy paper titled "A Tuition Bubble? Lessons from the Housing Bubble," Gillen details a vicious cycle. Because the government views postsecondary education as a public good, it provides subsidies (relatively cheap and plentiful student loans) to pay for it. The subsidies increase the ability of more students to pay for school, which leads universities to raise their prices, which then leads the government to provide greater subsidies, and so on. Normally, the price would settle at a point where the ability and willingness of students to pay for an education matches the ability and willingness of a school to supply that education. But because the subsidy artificially increases the ability of students to pay, and because the supply of higher education is relatively inelastic, the normal laws of supply and demand may be distorted.

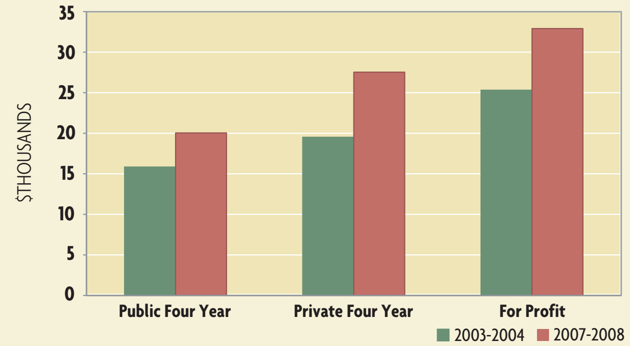
Implications

The rise in student debt poses several challenges to the increasing number of students striving for a degree. Student debt can linger for decades, preventing graduates from making important decisions such as buying a house, getting married, or having children. Parents who co-sign their children's loans also share this burden, and it may prevent them from making their own life decisions, such as retiring.

For borrowers who fall into delinquency, their lenders can exact several harsh penalties. In addition to harmed credit scores and higher payments, further financial aid is denied, academic transcripts may be withheld, tax refunds may be withheld to repay the student loan, and federal payments like Social Security may be reduced. The longer a borrower remains delinquent, the less likely he or she will be to resume control of the debt.

There are strategies that borrowers can use to delay or reduce their payments, but they require thorough research and strict adherence to the terms set by the lenders. Although it is possible to defer payments by obtaining additional schooling or through economic hardship, the interest on unsubsidized loans continues to accrue — and if a student takes out additional loans to remain in school, the ultimate burden only grows larger. And in the case of forbearances, which are similar to deferring payments but are available to those who are in default, interest on all loans continues to accrue. In the end, interest can turn a seemingly manageable loan into a significant liability.

Average Cumulative Loan Debt for Bachelor's Degree Recipients Upon Graduation



NOTE: Includes U.S. citizens and residents. Plus, loans from friends and family, and credit card debt are not included.
SOURCE: NPSAS 2003-2004, NPSAS 2007-2008

To minimize payments, two often cited options are the federal Income Based Repayment (IBR) Plan, which caps the required monthly payment based on the borrower's income, and the Public Service Loan Forgiveness (PSLF) Program, which forgives a portion of the balance for borrowers employed in some public service jobs. The federal government also offers partial loan repayment for service in the military or sponsored volunteer efforts for a few years.

IBR and PSLF were both enacted within the last few years, and IBR is set to expand in 2014. The effect of these programs and the change to federal direct lending on students' borrowing habits will not be seen for several years. Additionally, the current data include students who started school — and thus started borrowing — prior to the financial crisis, so it is uncertain how the decrease in private lending will affect total debt levels. Despite public concern about how much students are borrowing, the recession may mean that many students starting college now may have little choice but to increasingly turn to the loan market.

The consequences of accumulating student debt illustrate how important it is for borrowers to understand the terms of their student loans. And as tuition and incidental schooling costs increase, the next wave of hopeful college applicants must decide whether student loans are a strategy that leads to worthwhile investments in education — or to cumbersome obligations. **RF**

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Caretaking the Culture

Art museums strive for financial stability

BY BETTY JOYCE NASH

The Virginia Museum of Fine Arts (VMFA) opened in Richmond 75 years ago during the Depression. So it's fitting that the museum unveiled the biggest expansion in its history — $150 million and 165,000 square feet — on the heels of the recent recession.

Art museums provide valuable services. Museums not only enhance a community, they also protect and restore inherited artifacts, interpret and accumulate current creative work, and pass treasures forward to future generations. In short, they take care of the culture.

But it's a challenge to quantify or charge for this value in a way that pays the bills. Art museums rely on gifts and contributions as well as earned income, endowment income, and some government funding. Most museums struggle to fund daily operations as they make the tough trade-offs required to pursue missions.

The VMFA's dramatic new wing, with its 40-foot glass wall overlooking The Boulevard, exhibits its 21st century

PHOTOGRAPHY: BILYANA DIMITROVA/COURTESY OF VMFA

The heart of the Virginia Museum of Fine Arts' expansion is its new wing, which includes public gathering spaces such as a three-story glass atrium.

purpose: wide-open public access. An atrium unites the museum's existing wings and opens onto a library, shop, café, and the galleries. General admission is always free — and the museum is open 365 days a year, including Thursday and Friday nights until 9 p.m. "Accessibility is part of the answer to how we can make this work," says VMFA director Alex Nyerges. "We need to make art museums part of the fabric of our daily lives."

Art museums don't respond in the usual way to the forces of supply and demand that underpin markets for most commercial goods.

Paradoxically, the VMFA wants to increase revenue by making as many attractions as possible free.

Museums and the Market

Art museums don't respond in the usual way to the forces of supply and demand that underpin markets for most commercial goods. Though the market for buying and selling art functions just fine, museums aren't in the business of selling art for profit: They show and preserve the art and educate the public, a money-losing proposition almost by definition. As such, the services provided by museums are often considered public goods that may not adequately be produced by the for-profit sector. For most museums, then, viability means some combination of private contributions and public funds. This is why most museums are private nonprofits, about 71 percent; most of the rest are publicly owned and managed by various levels of government, according to an Institute for Museum and Library Services (IMLS) survey of more than 1,000 institutions in 2008. Only 0.2 percent of museums in the United States are for-profits.

American museums grew from the generosity of private benefactors. These cultural capitalists amassed wealth in the 19th century, and funneled cash into culture — including libraries, museums, and schools. The VMFA got its start from just such a man, John Barton Payne, during a museum-building wave between the world wars when more than 30 museums went up nationwide. A native Virginian, Chicago lawyer, judge, and public servant, Payne pledged his own art collection in 1919 to a future state museum dedicated to the arts. In 1932, the state accepted Payne's cash gift of $100,000, conditional on matching funds. Though the state then had no discretionary money, Gov. John Garland Pollard raised private funds, and received 30 percent of the amount from a federal Works Progress Administration grant. In 1934, the General Assembly legislated state maintenance of the building and staff salaries, while the Board of Trustees was deemed responsible for art objects and endowments. Payne died in 1935; the museum opened in 1936. In fiscal year 1936-1937, the state appropriated about $32,000 for the museum — roughly $503,000 in today's dollars. The museum has been sustained since by the public, business leaders, collectors, and other benefactors, including the late Paul Mellon, its longest-serving trustee at 40 years.

Though a steady stream of state funding may be unusual for an art museum, Virginia is not the only Fifth District state to provide substantial funding for its flagship museum; so does North Carolina. Both museums opened new wings in 2010. And though funding fluctuates, each receives roughly a quarter of its operating funds from the state. Those funds help sustain ordinary operations that don't attract attention from benefactors, such as maintenance, security, and management of the art collection. Energy costs are substantial, for instance, because the building requires a controlled atmosphere at all times to protect the integrity of the collection even when the building is unoccupied.

Multiple Missions

Art museums are places for people to learn, formally or informally. Art museums advance scholarship about the art and artists in the collection. As such, notes Massachusetts Institute of Technology economist Peter Temin, part of what museums do is provide education.

Museums can also stimulate spending, especially when shows attract people from out of the area. For instance, the Picasso exhibit this winter at the VMFA will be the show's only East Coast stop, and people from all over Virginia and other states are likely to be among the projected 200,000 visitors.

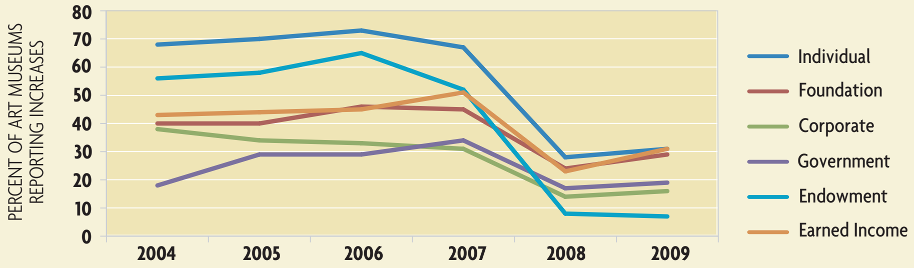
Another of the VMFA's missions is sharing art. Selections from the VMFA's collection will circulate in 2011 among museums in cities large and small throughout Virginia, in two separate anniversary shows, to commemorate the museum's founding.

Most people don't realize the complexity of what goes on behind the scenes at an art museum. For example, the seemingly simple process of shipping art to share it with another museum requires an enclosed, climate-controlled loading dock big enough for a tractor trailer. Sturdy wood trunks and special packing foam protect artworks. A meticulous array of instructions, and sometimes a courier, accompany the pieces.

Requests for loans must meet specific criteria before the museum agrees to lend. "We are stewards and it's our responsibility to make sure this gets passed on to future generations," says chief conservator and deputy director for collections management Stephen Bonadies. (Monet's

Revenue by Category

The Association of Art Museum Directors surveys its members each year. Survey results include responses through calendar year 2009, with varying response rates, with the latest showing 149 member responses. In 2010, AAMD members included a museum in Canada, Puerto Rico, and three in Mexico.



SOURCE: Association of Art Museum Directors' State of North America's Art Museums Survey

Field of Poppies is among the VMFA's most frequently lent paintings.)

The public also rarely views the museum's behind-the-scenes restoration efforts, such as recent work on a bed that dates from about 1905. The bed is one of three from the workshop of French designer Louis Majorelle; the entire bedroom suite was donated by longtime patrons Frances Lewis and her late husband, Sydney, founders of Best Products. The project required the services of an outside Art Nouveau expert.

The VMFA currently sends half of its restoration projects elsewhere, but aims to build its conservation department so it can perform more work in-house and also serve other museums. "We could double the department and probably save money because we farm out so much to consultants," Nyerges says.

Creative Financing

Temin and others have pointed out that museums typically can't raise money in ways a private business might: by selling assets — in this case, valuable art. Founders and future donors needed a guarantee, in those early years, that gifts would be used for stated purposes. The potential for the breaking of such agreements may be less acute today, according to Temin, given that museums are now staffed by professionals with greater training than in the early years; various laws ensure that donors' wishes are honored. Selling art is frowned upon. "Assets are the reason museums exist and the collections are essentially held in public trust by the museum," says Janet Landay, the executive director of the Association of Art Museum Directors (AAMD), a nation-wide organization of about 198 art museum directors. "The field has made it a key principle in our professional practices that you cannot sell artwork to cover any expenses. What sometimes gets confusing is the fact that museums sell art regularly, but use the money to upgrade the collection. It's restricted accession money. It's a line that you really can't cross."

During the Depression, though, some museums fell back on collections to save the institutions. Brandeis University in Waltham, Mass., recently considered selling part of its collection to help solve financial problems — but did not. And cash-strapped Fisk University in Nashville, Tenn., got court permission to sell one-half interest in Alfred Stieglitz photographs to the Crystal Bridges Museum of American Art, scheduled to open later this year in Bentonville, Ark. "Such choices are very difficult in times like these," Temin says, of the recent controversies.

Admission fees may help art museums, but they don't constitute much of a revenue stream. No recent data exist to quantify the proportion of revenues earned overall from admissions; at the time of a 2001 survey by AAMD, however, the average admission was $2.25.

Free admission makes economic sense, according to Harvard University economist Martin Feldstein, who edited *The Economics of Art Museums*, published in 1991. While a private museum full of Rembrandts or Renoirs might charge high entry fees, a nonprofit won't do it because "the decline in attendance would be contrary to the museum's basic mission.

"Even a modest admission charge might deny someone who wished to see the collection the opportunity to do so even though his or her seeing it would impose no cost," Feldstein writes. That would remain true up until the point at which an exhibit or a museum became congested.

Attendance is one index of effectiveness, and at most museums, it runs counter to the business cycle. When times are tough, more people visit. But private and public funding decline in a downturn, as governments struggle to balance budgets and contributions dwindle along with endowment income.

Art museum funding breaks down this way, on average: 13.1 percent comes from government, 23.3 percent from private sources, 46.1 percent from earned income, and 17.5 percent from investments, according to an IMLS survey based on fiscal 2006 data, the latest available.

Museums are also subsidized indirectly through forgone taxes on property and income, estate tax deductions for charitable contributions, and nontaxation of endowment income. Federal insurance guarantees also protect accredited museums against catastrophic damage when art is loaned.

The recession crimped art museums' income, according to the latest AAMD survey. In 2009, 23 percent of respondents reported increases in overall revenue relative to the previous year, up from 15 percent in 2008. That compares to 58 percent in 2006 and 55 percent in 2007. Less than one-fifth of respondents, 16 percent, reported increases in corporate support in 2009, with three-fifths reporting declines, the same as in 2008. (Business activity peaked in December 2007, the official start of the recession.)

Endowment income fell during the recession after rising in 2005 and 2006. By 2008, only 8 percent of respondents reported increases in endowment income; in 2009, 79 percent of museum respondents said endowment income fell. Earned income also has fallen.

Public funding also can be precarious. The VMFA's state funding has fluctuated over the last decade. In 2003 the museum received $7.5 million and in 2009, the state contribution totaled about $8.79 million, both figures in 2010 dollars.

By the Numbers: 'Tiffany: Color and Light'

Expenses	$	Revenues	$
Exhibition Design & Production	293,000	Endowments	550,000
Administration/Loan Fee	184,600	Earned	500,000
Shipping & Insurance	335,000	Corporate, Individual	200,000
Security	99,000	**Total**	**$1,250,000**
Education & Publications	116,678		
Marketing	200,000		
Total	**$1,228,278**		

SOURCE: Virginia Museum of Fine Arts

The VMFA is striving to vary and build income streams. Currently the VMFA's annual operating budget is about $37 million, with about 27 percent coming from the state. Endowment, earned income, contributed income, and special events need to provide the remaining 73 percent. "The goal is to have four diverse sources of support so we're not relying on any one particular source and amount," Nyerges says. In the recession, endowments went down, giving went down, and state budget appropriations went down. Earned income includes membership fees, tuition for classes, ticket revenues, education programs, parking deck revenues, facility use fees, publications sales, photo sales, and revenues from the gift shop.

Mega shows like the Picasso exhibit are no panacea for revenues. The Picasso show is likely to cost "just shy of $5 million," Nyerges says. Though these big shows may attract crowds, they can be break-even efforts. For instance, the VMFA hosted a major collection of work by master glassmaker Louis Comfort Tiffany from May to August 2010, the only American museum to feature the exhibition. Yet the show barely broke even. And costs of shows and the day-to-day functions of the museum aren't likely to get cheaper, only more expensive. Special shows are, like many of the VMFA's galleries, underwritten by patron or corporate support.

The plan is to build traffic, popularity, and attendance. Art museums today are about bringing people together, says Nyerges. In its aim to become a gathering spot, the museum is cultivating clientele with free jazz, free exhibits, and a variety of events, some with fees, most without. "Art After Hours," formerly a fee event with music and food and dancing, now costs nothing. The new atrium serves as a Main Street, of sorts, branching off into galleries, the café, and shops. "This is a very calculated and directed plan aimed at increasing revenue," Nyerges says. The aim is a steady flow of visitors who can find a variety of entertainment options while visiting VMFA, not only the exhibits. "It allows us to bring in more people to the building and, while they are here, they may see the South African or the quilt exhibition."

Membership and attendance at VMFA have varied over the years. In fiscal year 2000, attendance reached 669,000; that included more than 250,000 visitors to an exhibit of Egyptian art. By September 2009, membership had dropped to 7,100, largely due to construction started in 2005 and the 10-month closure prior to the re-opening in May 2010. But by late November, VMFA had about grown to 20,000 members. And the museum logged about 265,000 visitors in the first seven months after unveiling its transformation into a kind of town hall.

"The notion of a hall of relics, dusty and quiet, is obviously a 19th century creation," Nyerges says. People can be inspired by beautiful works but also challenged and educated through exhibits like the recent display of South African photographs depicting apartheid-era events. Art museums today bring people together to learn, enjoy, and have fun to make their lives better while museums, behind the scenes, continue as keepers of the culture. **RF**

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Triangulating the Recession

Knowledge jobs lend resistance, but not immunity to downturn

BY BETTY JOYCE NASH

Conventional wisdom has it that the Research Triangle area enters recessions late and exits them early, says Brenda Steen, of Apex, N.C. Steen directs the Chamber of Commerce in Apex, a bedroom community near Raleigh known as the "peak" of the Triangle. "My heart goes out to people in Florida and other places where things are worse; 2008 and 2009 were really scary and depressing."

The Research Triangle is a prosperous region bounded by three major universities in north central North Carolina — North Carolina State in Raleigh, Duke University in Durham, and the University of North Carolina at Chapel Hill. The area is home to jobs that require extensive education, and it's also got a healthy set of public employers at the state schools and the capital in Raleigh. By many measures, the region's job mix helped buffer residents from the effects of the most recent recession but it couldn't protect them entirely.

Steen can't help having a keen awareness of the local business climate in her job at the Apex Chamber. It's where people stop for information; she also gets resumes from job hunters. Membership declined by 25 percent over the recession — small businesses, when polled, said they couldn't afford the dues. Area churches held resume-writing workshops in late 2008, as well as gatherings to get people out of the house and give them somewhere to go. Steen's husband lost his job in a layoff. And in October 2008 Sony Ericsson relocated its headquarters to Atlanta and laid off between 800 and 900 people. And there were even more layoffs. By the end of 2009, the Durham area had shed 7,800 jobs since the recession started, and the larger Raleigh-Cary area, 27,500. The Triangle treaded water as the broader North Carolina economy "went kerplunk," says Bo Carson of the Research Triangle Regional Partnership (RTRP), the region's economic development organization.

Positive signs now loom: Over the first half of 2010, both the Raleigh and Durham metros added jobs: 1,200 and 4,800 respectively. In May, RTRP announced a record $2 billion in 2009 investments for the region, expected to bring 11,000 jobs; in 2010, the group reported another $1.27 billion for the year.

The Triangle may not be recession-proof, but it's surely cushioned by its mix of high-skilled jobs in fields such as the life sciences, pharmaceuticals, and math-intensive professions.

Degree Production

The Triangle region spreads across eight counties, with about 1.7 million residents in the combined statistical area. Duke anchors Durham, an old tobacco town, whose medical center draws researchers and patients from around the world. Just outside the city limits sits the 7,000-acre Research Triangle Park. Spawned by the state more than a half-century ago to leverage university research, it's now studded with private and public enterprises. In Raleigh, North Carolina State University has its main campus and its own research park, Centennial Campus. The Triangle's third point is the sprawling University of North Carolina in Chapel Hill and its health center.

The Triangle ranks 19th among the top 20 metro areas in the United States, as measured by the number of degrees its universities and colleges produce, nearly 19,000 in 2006, according to a staff report by economists Jaison R. Abel and Richard Deitz from the New York Fed. In North Carolina, roughly a quarter of people over age 25 have a bachelor's degree, but the percentage jumps to between 40 percent and 42 percent in the Triangle. In the Raleigh-Cary and the Durham-Chapel Hill MSAs, about 19 percent and 14 percent respectively have postgraduate degrees compared to 8.5 percent statewide.

The region ranks even higher, sixth, in its academic research and development expenditures, about $1.4 billion in 2006, according to Abel and Deitz. Duke and its medical center, for example, garnered grants worth $2.6 billion between Dec. 1, 2007 and Oct. 31, 2010, according to Karl Bates, director of research communications.

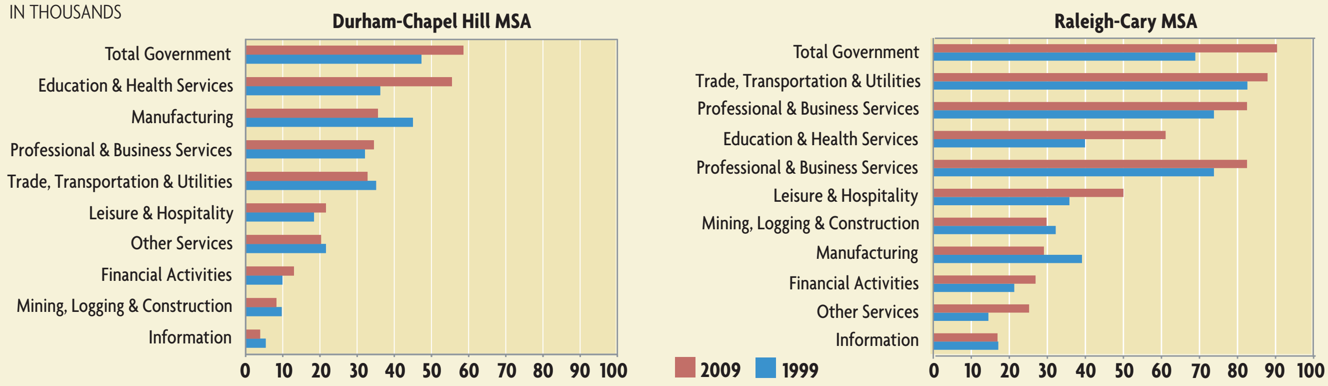
Abel and Deitz investigated the relationship between academic research and development and the amount and types of human capital in metro areas. Because college graduates are mobile, they may not enter the labor market where they attended college. The researchers found only a "small positive relationship between a metropolitan area's production and stock of human capital." The authors suggest that migration redistributes educated workers, defined in the paper as graduates with at least a bachelor's degree. That's because most metro areas in the United States, 62 percent, produce more graduates than they can employ. The remaining 38 percent employ more graduates than they produce. Even so, universities do influence demand for human capital through R&D spillovers that help create firms and shape job formation. Abel and Deitz note that research efforts ultimately "tilt the structure of local labor markets toward occupations requiring innovation and technical training." All this human capital is associated with more growth as well as higher wages and income.

Triangle Employment

During the recession, the Triangle's unemployment rate stayed below two digits, but barely. The rate peaked at 9.6

Employment by Sector

IN THOUSANDS



SOURCE: N.C. Employment Security Commission

percent in the Raleigh-Cary MSA compared to 11.8 percent statewide; the Durham MSA's peaked at 8.6 percent. The unemployment rate at the end of September 2010 was 6.7 percent in the Durham MSA, down from 7.9 percent a year earlier, and 7.7 percent in Raleigh-Cary, down from 8.8 percent a year earlier.

Given the recession's depth and breadth, even in the Triangle, it may take a while for firms to swell payrolls enough to make a dent in unemployment numbers. As in the recoveries of 1990 and 2001, hiring may lag as firms invest in equipment, not people, to increase productivity.

Public employers in the Triangle have provided relative stability, but that might not last, given the state's $3 billion projected deficit, says Jason Jolley, senior research director of the Center for Competitive Economies at the University of North Carolina.

Jolley believes recovery will be slow in the Triangle. Government and universities may be stabilizing influences in the Triangle, he says, but they are likely to face cuts. "We've had furloughs, we haven't had raises in two or three years, and so there's not the spending associated with these institutions as there has been in the past."

In both the Durham-Chapel Hill and Raleigh-Cary MSAs, the government sector has grown in the past decade, from 18 percent of employment to 21 percent in Durham and 16 percent to 18 percent in Raleigh. The share of jobs in education and health services also has grown: from 14 percent to 19 percent in the Durham-Chapel Hill MSA and 9 percent to 12 percent in Raleigh-Cary over the same period.

The information technology job sector has shrunk over the past decade, from about 2 percent of employment to 1 percent in the Durham-Chapel Hill MSA (that is, from 5,400 people in 1999 to 3,900 in 2009); the sector went from 4 percent to 3 percent in Raleigh-Cary (from 17,100 in 1999 to 16,900 in 2009). The Triangle has shed jobs at companies such as Sony Ericsson. Electronics company Aviat Networks laid off 200 in the Triangle, consolidating its business in Silicon Valley.

Many remaining tech employers are cautious, a vestige of the 2001 recession. "I think tech companies remember very well the pullback and are constantly worrying about overexpanding," says economist Mike Walden of North Carolina State. "So they are using more 'just-in-time' and part-time labor to avoid heavy commitments to labor costs."

Corporate downsizing is also emptying office spaces. For instance, Blue Cross and Blue Shield of North Carolina and GlaxoSmithKline plan to shrink footprints in the region, with consequences unclear for the labor market.

Add to that the increased demands on counties for social services, with less tax revenue, and the picture further dims. Unemployment has declined, but that's because of labor force dropouts, Jolley says. And then there are the underemployed. "Like the college students who have graduated and have to keep working at the bar on Franklin Street."

Economic conditions remain soft, though upbeat stories are threaded through the statistics. In Apex, you may need to wait in line at a restaurant on a Friday night, Steen says, adding that congested traffic at Target is a good sign. These reports, though, exist amid still-vacant commercial buildings and halted housing developments.

More people are moving to Triangle area. While state-to-state migration stagnated for the United States as a whole, the number of people moving into Raleigh-Cary went up by 3.2 percent from July 1, 2008 through July 1, 2009 as the recession ebbed; the Durham-Chapel Hill population grew by 2.1 percent over the same period.

Demand for labor will rise when demand for firms' products and services does. Carson cites examples such as IBM's new cloud computing center, for which they are hiring 600 people. And the region's life sciences cluster attracts more and more contract pharmaceutical research. He says that promised jobs are in the pipeline — those knowledge-based jobs that made the Triangle famous. They seem to have at least provided resistance to the region during the recession.

Some people have created their own jobs — a coffee service, a brewery, a ladies' boutique, coaching, painting, house- and window-cleaning businesses. "I'm not sure where the funding is coming from," Steen says. Some may have borrowed from their retirement accounts, she speculates, while others may have been able to convince banks to loan. And after a six-month stint commuting to a Washington, D.C.-based think tank, she reports that her husband found work at Pfizer. **RF**

Interview

David Feldman

As tuition at both public and private universities has increased sharply in the past quarter-century — far faster than the general rate of inflation — the question of how to pay for undergraduate education has become increasingly angst-ridden for students and their parents.

How did higher education become so expensive? The question calls for systematic economic analysis. David Feldman and his collaborator Robert Archibald, both economists at the College of William & Mary, have sought to provide that analysis in a series of articles and in a recent book from Oxford University Press, *Why Does College Cost So Much?*

Feldman has been at William & Mary since arriving in 1989 from Colgate University as a visiting professor, a job that he took to be closer to his wife, then a medical resident at Virginia Commonwealth University Medical Center in Richmond. His early work focused on issues in international trade, macroeconomics, and economic history, often combining insights from all three areas. His research with Archibald on the economics of higher education likewise draws upon a number of subfields, including labor economics, in addition to the microeconomics of university admissions. David A. Price interviewed Feldman in his office at William & Mary in December 2010.

PHOTOGRAPHY: DAVID A. PRICE

RF: Much of your early work was in international trade and finance. How did you become interested in the economics of higher education?

Feldman: My very first paycheck as a tenured member of the faculty here was reduced in the 1990 statewide pay cut that the governor authorized. So my first interaction with being a state employee was having my contract be signed for one thing, and then having my paycheck be for less, because the governor just arbitrarily cut state salaries. That was my introduction to higher education finance and the beginning of my interest in it.

I didn't become a researcher in it right away. But 1990 was a state budget crisis, and that stimulated all sorts of discussions around here about the appropriate role of the state in funding higher education. Over the following decade, what we observed was that state support for universities here followed a downward roller coaster trend. When times were good, the state share would rise back up, but it never quite got to the level of the last peak. And then the next budget crisis would come, and state support would fall, and times would get good, and it would come back up, but not quite as much. When I came, the state supplied over 70 percent of our operating funds, and I think it's now down to something in the 30s. That's a rather startling change in a little over 20 years.

My co-author, Bob Archibald, made the switch before me; he had started thinking seriously about financial aid. We actually began our co-authorship not on higher education issues, but on trade issues. But once he had begun writing with me, he then began interesting me further in the higher education side of things. We just got talking, and the rest is history.

RF: In the 26 years from 1980 to 2006, the real price of education has increased more than 100 percent. Some consider rising tuition to be evidence of irresponsibility on the part of university administrations. But you found that during the past half-century, the trend in the real price of higher education has been very similar to that of the services of highly educated professionals, such as physicians and lawyers, including a sharp acceleration in real prices starting around 1980. How do you account for that acceleration?

Feldman: The acceleration starts around 1980. What we find, which won't come as a surprise to any labor economist in the country, is that the acceleration in college costs was timed almost perfectly to the end of what Claudia Goldin and Bob Margo called the "Great Compression" — the period in which the income distribution in the United States became compressed in the middle. That was a period, basically 1940 to 1980, when the United States was as middle class a country as it has ever been. The gap between the 90th percentile of the income distribution and the 10th percentile was as narrow as it had ever been. In fact, in the 1970s, that gap continued to narrow, until by the middle of that decade it was as low as it had been in the 20th century. But starting in the late 1970s and early 1980s, a number of things came together to cause the costs of colleges and universities — as well as of all industries that use a significant amount of highly educated labor — to start to accelerate compared to other things.

Basically, for the first 75 years of the 20th century, the supply of highly educated people — or changes in the supply of highly educated people — had outpaced changes in demand.

We don't have anything in particular to add to the story that labor economists have developed, but we find the most persuasive explanation is Claudia Goldin and Lawrence Katz's race between technology and educational attainment. Basically, for the first 75 years of the 20th century, the supply of highly educated people — or changes in the supply of highly educated people — had outpaced changes in demand. Due to capital-skill complementarity, the demand for highly educated people had been steadily rising over the course of the century, but for much of the century, the supply increased even faster.

This was the period in which we had the push for universal high school completion and a skyrocketing increase in the number of people coming out of colleges and universities. But in the mid- to late-1970s, attainment stagnated. We peaked with the number of people getting high school degrees at around 75 or 80 percent, and male college completion rates stagnated. Female college completion rates continued to rise, but increasing numbers of college-educated women weren't going into the labor force. In the same period, the demand for highly educated people continued to rise, as it always had, and if anything, the computer revolution of the past 40 years has accentuated that trend.

So the earnings of people with a college degree, relative to people with a high school degree, just took off. That's mirrored for people with advanced degrees, the kind of terminal degrees that college professors, and doctors and lawyers, have. Any business in which a substantial fraction of its employee base is highly educated is going to feel these cost pressures. Some businesses can more easily shed those people in favor of machinery or other things, but many of the personal services industries cannot do that and remain the kind of services that they had been. So you see, in many of the medical specialties, legal specialties, education — all education, in fact, not just higher education — these industries have seen their cost structure just accelerate.

RF: Presumably salaries are a very high share of the overall costs of a university.

Feldman: Indeed. Some people have pointed out that faculty salaries have not risen astronomically. But often these people look only at salaries, not at salaries plus benefits. Faculty compensation has increased considerably since 1980 when you add salaries and benefits together.

To some extent a faculty member is not a perfect cog; you can't just take a faculty member in the English department and put him or her to work in investment banking, of course. But there is a shared labor market, the labor for highly educated people. And ultimately changes in the return to higher education filter through to all degree categories.

RF: Don't government subsidies of tuition, such as subsidized student loans, play a role in rising tuition?

Feldman: Oh, they certainly could, and it is the common wisdom. But two things need to be clarified here. First, even if it led to a higher list price, it might lead to a lower net price for students. Second, the whole notion that "it's all econ 101" relies on the idea that the supply of higher education is upward sloping — that in order to get more places available, universities have to get a higher price for it. Actually, the bulk of the evidence suggests that this industry is pretty much a constant-returns-to-scale industry, so the long-run supply curve is essentially flat. The way we put it in the book, if you have a university of size 5,000 on one side of the river and there's a demand for 5,000 more places for students, you can build a university on a vacant piece of land on the other side of the river, that duplicates everything that university 1 did, and do that largely without changing the cost structure. You could provide the same education for 5,000 more students on the other side of the river simply by duplicating the plan.

If you look back over the last 50 years, that's largely what's happened. The numbers of students who are being put through American universities dwarfs the number 40 years ago. And this increased number of places that we have available for college students has not meant that we've slid along an upward sloping supply curve. We have been able to build totally new universities and university systems without affecting cost per student at any given university. So what we're actually concerned with is the reasons why that flat supply curve itself is drifting upward over time. That's the force for rising costs, this flat supply curve drifting up over time. What we suggest is that the prime impact of government subsidies is not to raise tuition, but to increase the number of places available.

RF: Wouldn't you expect technology to bring productivity gains to higher education? Why hasn't this happened?

Feldman: Actually, it has. If you look around a university campus today, you will see many things that look quite different than the way they looked 30 years ago. Technology has had an impact on higher education that's basically the same as the impact it's had everywhere else. A simple example is secretaries and typists. If you look around a college campus, what you will see is that the number of secretaries and typists in comparison to when I was a student in the 1970s is way down. When I was a graduate student at Duke, we had two or three departmental secretaries, and a small army of typists. Those typists typed my tests, they typed my papers, they did all my typing for me. We more effectively do much of our own work that once was done by this army of typists.

It's something you observe everywhere in this economy. The number of people whose job categorization is keyboard worker or typist has just gone through the floor. It's in higher education, it's everywhere. That's the substitution of relatively low-cost technology for relatively high-cost labor.

But what we argue is that this is not the dominant way that technology affects higher education. The primary impact of technological change in higher education is less on reducing our costs and more on improving or changing what we do. To a certain extent, colleges and universities are first adopters. We tend to be first adopters of new technologies out there, and we don't do that because of its cost-reducing impact. We do it because it's what our faculty needs in order to do their research. It's what our students need in order to become fully conversant in the new techniques that are reshaping the work world that they're going to move into.

A lot of people tend to think that the impact of technology is only in the natural sciences, and this is quite wrong. It may be more important in a dollars and cents sense in physics and chemistry, but new techniques have changed the way the economics department teaches. Our students have to be quite conversant in Stata and SAS and other econometric packages. People in architecture have to be fluent in computer-assisted design; people in history departments often have to be familiar with computerized database analysis that would have been impossible 30 or 40 years ago. So the kinds of techniques that we adopt aren't necessarily adopted with an eye to lowering the cost of what we provide.

RF: Is it difficult to assess the role of technology in the cost structure because it has changed the product?

Feldman: Correct — we're not measuring the same thing. It's not as though our output is a pound of potatoes. It's almost impossible to measure the value of the output except retrospectively, many years in the future, looking back at whether or not we succeeded in preparing students for what they need to know.

Our traditional measures of productivity are way too crude to handle many things, like personal services. Not only that, we're a multiproduct firm: We produce research, we produce public service, we produce graduates at the undergrad and grad level.

RF: There's a popular perception, at least, that workers in the for-profit sector are working harder today than they were 20 or 30 years ago, and that this trend has passed academia by. Do you think that's true?

Feldman: There may be something to it if you go back 60 years. But over the last 20 or 30 years, no. I don't think that's a very accurate thing to say. There is no good data that support the often politicized perception that faculty members don't do any work — that faculty members teach six to nine hours a week, and twiddle their thumbs for the rest of the day.

If you want to look at evidence, you need to go to the Bureau of Labor Statistics, for instance, and look at the establishment survey, or other data sources, on the average workweek for the economy as a whole. If you actually go and look at data on the average workweek, over the last 30 years, it has fallen: from about 38 to 39 hours per week to 34 to 35 hours per week, among workers in general. So the idea that the higher education sector is inherently full of lazy, unmotivated people and the private sector is full of dedicated people working ever longer hours doesn't seem to be borne out at all in the actual national data.

The data we have suggest that as the nation has become more affluent over long stretches of time, 40 to 50 years, people have taken part of that affluence in the form of higher leisure, so shorter workweeks. Those are the facts.

RF: Does the institution of tenure reduce faculty productivity?

Feldman: Tenure is a very complicated subject. I think a lot of people think about tenure using the quaint old story about academic freedom. But I think most economists actually look at tenure as an economic institution. It's a way of solving a set of incentive problems that are out there. One of the problems is that you have faculty members who are being asked by universities to specialize in something that's fairly narrow. One thing that gives the faculty member the incentive to do what the university wants, which is risky specialized research ventures, is the security that if the world turns against them 10 years from now — they're looking at problem Y, and problem Y stops being important or gets solved — the faculty member isn't just dismissed while they're trying to retool to solve problem X. So in a sense, what the institution of tenure does is that it helps faculty members to invest in risky ventures that are of value to the university.

Does tenure raise costs? I think it actually reduces costs. Tenure is compensation in a nonmonetary form as opposed to in a monetary form. Other things equal, if you give a person job security, part of that is in lieu of a higher salary.

RF: You write about the decline in what is called "state effort" — appropriations per $1,000 in personal income — in support of state universities. You found that on average, state effort has gone down 40 percent from its peak in the 1970s. Yet state budgets generally have soared during that time. Why has higher education's share of state spending been shrinking so much?

Feldman: That's a complicated issue as well. And a lot of people have weighed in on it. Clearly the first place to look is at what states are actually spending their money on. Those categories are ones like corrections, Medicaid, roads, and K-12 education. These are things that are muscling higher education out of the budget.

Over the past 35 years, states have shown that they are far more willing to endure the political problems that come with allowing tuition to go up than they are willing to endure the political problems that come from raising taxes. Increasing taxes: anathema. Increasing tuition: bad, but not as anathema as raising taxes. And unlike things like the prisons, you can't charge the prisoners for their rent. But you can charge the college students for their education. So states have found it more palatable to allow universities to cover more and more of their increasing costs by direct charges to families, rather than cough up additional state revenues in order to keep those charges down.

This is not a Virginia issue, this is nationwide. The pattern of declining state effort is nationwide.

RF: Has undergraduate education become a more national market than it was a generation ago?

Feldman: Much more so, yes. At the average university — this is true at public universities, it's true at private universities — if you look at the percentage of the student body that comes from within the state, it's gone down. The percentage of out-of-state students has gone up. Or if you look at it differently, if you look at the number of students who come from with a certain radius, not just within state, but just miles, schools now have to compete with schools that are farther away.

If you were to go back 40 or 50 years, for instance, and look at a particular geographic area, the number of schools that effectively had that market was fairly small. Each of those schools today has much less market power within that market. Two things tended to lock students into their more local network: One was transportation and the other was information. Transportation and information are now both very cheap in comparison to what they were 40 or 50 years ago. What that means is that people have the luxury of taking a wider view. And when they do that, it means that any given school, instead of having two or three or four other competitors, now has 20, 30, 40 other competitors.

RF: Students can look at universities farther away ...

Feldman: I've got a 17-year-old who's doing that as we speak!

RF: ... and universities can look at students who are farther away. What has this meant?

Feldman: One of the things that it does is create better matching. Students can find a finer match for what they want than they could in years past, when both information and transportation were much more expensive.

But there are other aspects. One of the things that we've observed is that the nationalization of the market has led to increased prosperity of the elite. Instead of Harvard, Yale, and Princeton competing for the best of the Northeast, we have Harvard, Yale, and Princeton, oh, and Stanford, competing for the best of the nation. So what we have observed at our most elite universities is that their selectivity has gone up over time. There's debate about what's happened to selectivity at the rest, but there's not a whole lot of debate about selectivity at the elite. The elite are now more selective than they have ever been. So there's a concentration of talent that has occurred as the best students who used to go to largely regional universities now can aspire to Harvard, Yale, Princeton, and the better small liberal arts programs.

RF: Now that higher education is a national market, do you see it becoming a more global market?

Feldman: It has become global. And many of the same forces that I've just been talking about in the national market are also driving the internationalization. Somebody from Shanghai or Bogota can aspire to go to school at the University of Kansas, or Yale, for two reasons: The cost of

David Feldman

➤ Present Position

Professor of Economics,
College of William & Mary

➤ Previous Faculty Appointment

Colgate University, 1984-1989

➤ Education

A.B. (1978), Kenyon College; Ph.D. (1982), Duke University

➤ Selected Publications

Co-author of *Why Does College Cost So Much?* with Robert Archibald, as well as numerous articles in such journals as the *Journal of Higher Education*, *Research in Higher Education*, *Review of International Economics*, *Economic Inquiry*, and *Southern Economic Journal* transportation has gone down, and the cost of information has gone down, so they, too, can look beyond the national university system of their country. At the same time, the American university system has for many years been the gold standard.

Likewise, the demand for education — it may be an investment, but it's an investment where there's a big cost. In the United States, it can be financed by borrowing. It's much less easy for somebody in the developing world to access capital markets and borrow for an education. As incomes have increased in various parts of the developing world, a class of people has developed who can actually finance that education in advance, in cash. So clearly, the development of the oil economy in many parts of the world, the development of an elite in many parts of the world, have led to families with enough income and assets that they can buy an American education by writing a check. This is a group of people that is adding to the pool of aspirants who want to get in. So we're already there.

The U.S. higher education system is still the most welcoming to outsiders. We speak English! How many foreigners in China are going to choose to go to a German-speaking university in Germany? There are some; I've met them, actually. But the numbers who have the German language skills, or the Italian language skills, or the French language skills, are very small in comparison to the numbers who have English language skills. So the demand for coming to the United States and Great Britain is quite high.

RF: Do you think there are other countries that offer a better model than ours for structuring the system of higher education here?

Feldman: I don't know that I want to make a complete declarative statement, yes or no. Different systems of higher education have different advantages and disadvantages. On balance, I think ours works better than most other systems do, for many reasons. Here's one that I really like to highlight: We have a system of higher education that is the best in the world at giving people second and third chances. I don't think that's a benefit to be underestimated. There are an awful lot of people in this world who don't grow up until they're 25, and in the United States it's very easy for them to go back to school. In Germany, if you are not college material when you're 11, then you don't get tracked into the "gymnasium." It's very, very difficult for you to move into the elite in German society.

Ours is a much more individual-based system. Somebody who was a hamburger flipper at McDonald's who says, "This is a dead end, I don't want to do this the rest of my life," simply takes the savings that they've squirreled away and goes to a two-year community college and gets the skills, and then decides whether or not to transfer those skills to a local university and get their four-year degree. We have a lot more flexibility in our system than in most other systems in the world, and I think that's of great value.

RF: Let's talk about international trade in general for a moment. As you know, international trade as a share of GDP declined far more sharply during the latest recession than in past recessions. What is going on there?

Feldman: I wish I could tell you! I don't know. This is not your garden-variety recession. This is not an inventory-driven process; this is driven by financial market meltdowns and financial market uncertainty. And I would venture to speculate that a recession driven by those two things probably affects trans-border contracts and trading more than it does internal ones — for many reasons, one of them having to do with risk. If you increase the risk of foreign investment, if you increase the risk of contracting with foreigners with products in their currency, for instance, and there is a real risk of significant ruptures in currency values, what you do is you create home-market bias. You make the risk of dealing internally within your own borders low compared to the risk of dealing externally with foreigners. So I would imagine that one of the things that you would observe is that an increasing home bias would tend to diminish the relative importance of trade and economic activity. That's just a guess.

RF: Who were your main influences in your development as an economist?

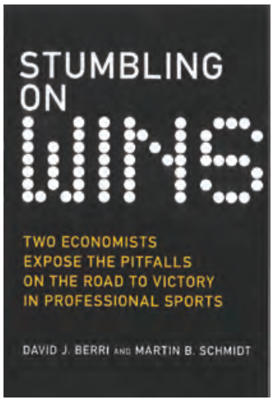
Feldman: On the personal side of things, when I was a young professor at Colgate, we hired a guy from the University of Pennsylvania named Robert Margo, one of the premier economic historians in the country. I was just learning the business, and he was the one who essentially helped me to understand how to think about research questions, how to pose an interesting question, how to think about managing a question, how to think about modeling and forming questions that a reasonable person could test.

In parallel to that, the other influence is my thesis adviser, Ed Tower. Tower's influence was to show me the value of probing deeply. Most thesis advisers are not hands-on. It's, "Hey, come back in three months time when you've got three-quarters of it to show me." That wouldn't have worked for me. And fortunately, that's not how Ed Tower worked. Ed Tower wanted to talk to you at breakfast every week. "So what are you thinking about?" And we would have a conversation. And he would ask questions, and push, basically until you would give up and say "uncle." That would teach you exactly what you didn't know, and where your modeling, where your intellectual apparatus was just not grappling with the problem. So those are two personal influences who helped me to understand what it means to be a professional economist. **RF**

Editor's Note: Our originally scheduled interview with Joel Slemrod of the University of Michigan will appear in the next issue.

BookReview

Calling the Shots



STUMBLING ON WINS: TWO ECONOMISTS EXPOSE THE PITFALLS ON THE ROAD TO VICTORY IN PROFESSIONAL SPORTS
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BY DAVID J. BERRI AND MARTIN B. SCHMIDT

REVIEWED BY JESSIE ROMERO

In *Stumbling on Wins*, David J. Berri and Martin B. Schmidt, economists at Southern Utah University and the College of William and Mary, respectively, examine why "experts" in sports so often make decisions that lose both money and games. Drawing on behavioral economics, which suggests that the rational decisionmaker of standard economic theory represents an incomplete depiction of actual human behavior, Berri and Schmidt argue that we often are reluctant to accept information that contradicts our current world view, even if it means repeating the same mistake again and again. And we often misinterpret the information we do have, or overestimate its predictive power.

The solution, they maintain, is "useful" numbers — numbers that are actually connected to outcomes (wins) and numbers that are consistent over time (for instance, numbers that will tell you something about a player's performance from year to year). In their 2007 book *Wages of Wins*, written with Stacey L. Brook, now at the University of Iowa, Berri and Schmidt developed a metric called "Wins Produced" (WP) to evaluate basketball players. WP uses regression analysis to measure the effect of individual player box score statistics on team wins. The authors find that a player's contribution to wins depends primarily on shooting efficiency, rebounds, turnovers, and steals. In *Stumbling on Wins*, the authors extend the WP framework to analyze fourth-down play calling in football (coaches play it safe too often); the value of hockey goalies (less than the goalies would like to believe); and whether coaching matters in basketball (not much, apparently, unless the coach is Phil Jackson), among other things.

The factors that make a player valuable to his team should, in general, be the factors that determine his salary. Berri and Schmidt find that the most important determinant of pay in the National Basketball Association (NBA) is points scored: Five more points per game equals an extra $1.4 million per year. The problem is that a player can score more points simply by taking a lot more shots, and ignoring other aspects of his game — to the detriment of the team as a whole.

Case in point: the New York Knicks of the mid-2000s. New general manager Isiah Thomas spent millions acquiring a roster of high-scoring free agents. But despite having the biggest payrolls in the league, the Thomas-era teams also had some of the worst records. In a chapter of the book that may surprise many sports fans who have vilified Thomas, Berri and Schmidt conclude that he simply showed the same preference for high scorers as the rest of the league — but had more money to spend on them. "It's not clear that other general managers would have made different choices given the budget Isiah had at his disposal," Berri and Schmidt write.

Berri and Schmidt also examine a long-debated question: Are black quarterbacks in the National Football League (NFL) underpaid? Comparing quarterbacks using "Wins Produced per 100 Plays" (WP100) instead of the NFL's Quarterback Rating — which they deem "complicated, and furthermore, incomplete and inaccurate" — the authors find persistent bias in the evaluation of black quarterbacks. On average, black quarterbacks produce more wins than white quarterbacks; they are also much more likely to run with the ball than to throw it, and therein lies the rub. Regressing salary on various performance measures, Berri and Schmidt find that the number of passing yards has the most explanatory power for salary, while rushing yards are not significant. Because white quarterbacks on average are paid more than black quarterbacks, the authors conclude that the black players are "doing something extra that helps their respective teams win games, but this extra effort is uncompensated."

Decisionmakers also have difficulty evaluating the performance of future players (as fans of the Portland Trail Blazers, the team that picked Sam Bowie ahead of Michael Jordan, know all too well). Draft day decisions illustrate a key aspect of decisionmaking. More data make us feel like we're making better, more informed decisions — but the human brain can process only so much information, a concept economists call "bounded rationality." So we sometimes don't focus on the most useful information.

In both the NFL and the NBA, Berri and Schmidt find that a player's productivity (as measured by Wins Produced) doesn't have much to do with his draft position. Quarterbacks get picked one round earlier if they're an inch taller or score higher on an IQ test. A college basketball player who plays in the Final Four of the NCAA tournament can improve his draft position by a full 12 spots — if he declares for the draft that same year. If he returns to school, the effect on his draft position (and, thus, potentially millions of dollars) is lost the following season. Although

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The Queen's Private Navy

BY DAVID A. PRICE

How Elizabeth's privateers strengthened England, rewarded investors, and led the way to the English New World

When Elizabeth I became queen in 1558, following the death of her sister, Queen Mary I, she found that she had inherited a mess: England's navy had shrunk to a dangerously small number of ships, the country was vulnerable to attack by the powerful Spanish empire, and the treasury had little money with which to build up the fleet or to do anything else. England also lacked the flow of wealth that Spain enjoyed from overseas colonies; by this time, Spanish conquistadors had already defeated the Aztecs of Mexico and the Incas of Peru and had been hauling away the incredible riches of those regions. England, in short, was outmatched militarily and economically.

Elizabeth's solution was to turn to the marketplace: She allowed private enterprises to form pirate expeditions, in essence, to capture Spanish shipping and bring home its treasures. Many of these plundering enterprises were joint-stock companies in which members of respectable London society — including merchants, gentry, and even Elizabeth herself — purchased shares. The returns from the enterprises enriched the Crown and stimulated the English economy. Even more significantly, in the long run, Elizabeth's policy built up the human capital that would enable England in the following century to establish itself successfully in North America.

Historians today distinguish lawful "privateers" — captains and crews attacking foreign ships with the permission of a sovereign — from pirates, who were mere robbers. With regard to the anti-Spanish voyages in Elizabethan England, however, this distinction is not always easy to draw. In theory, they were privateers: They were required to hold licenses, known as "letters of reprisal," and to comply with other restrictions on the raiding of foreign commerce. In practice, however, the official responsible for oversight of privateers, the Lord High Admiral, was notoriously corrupt and was lax in enforcing the rules if the price was right. Thus the privateers often were privateers in name only.

Tons of Silver

Perhaps the most famed of the queen's privateers was Francis Drake, who began a 14-year run of extraordinary exploits in 1573 with raids against the Spanish in present-day Panama. Aided by local Cimaroons — former African slaves who had escaped from their Spanish owners, and who were glad to make common cause with Spain's enemies — Drake and his men traveled overland across the Isthmus and ambushed a Spanish caravan; its 190 mules were carrying tons of silver ingots and another £100,000 or so in gold coins. Although converting money values across centuries is a highly imprecise science, research by economic historians suggests a conversion factor of roughly 134; in other words, Drake's £100,000 haul in gold coins alone would be worth approximately £13.4 million ($21 million) today.

Drake's next great, and highly profitable, adventure began on Dec. 13, 1577, with his departure from Plymouth, England, for raids on Spanish ports and shipping around South America. His 100-foot flagship, the *Golden Hind* (that is, the golden deer), was joined by four other vessels. They reached the Atlantic coast of South America in two months, and then took another seven months to

This portrait of Queen Elizabeth I, with her hand resting on a globe, suggests her ambition to make England a world power. Privateers helped her do so — and also defended England against the attempted invasion by the Spanish Armada in 1588, depicted behind her.

ELIZABETH I, ARMADA PORTRAIT, C.1588 (OIL ON PANEL) BY ENGLISH SCHOOL (16TH CENTURY) PRIVATE COLLECTION/THE BRIDGEMAN ART LIBRARY follow the coast southward and to traverse the Strait of Magellan near the continent's southern tip. By that time, three of the four ships traveling with the *Golden Hind* had been abandoned, and the fourth had returned to England after becoming separated from Drake.

Drake nonetheless kept going, attacking Spanish ships as he followed the coast of Chile, ultimately capturing a large Spanish treasure ship, the *Nuestra Señora de la Concepción*, on March 1, 1579. The ship had ample artillery with which to fend off an attacker, but Drake was able to employ the element of surprise — English privateers had been unknown in the Pacific. The *Golden Hind* hid its guns and slowed to give the appearance that it was merely another merchant ship, then attacked when the *Nuestra Señora* came within hailing distance. Drake's crew required six days to transfer the ship's riches, including 80 pounds of gold and 26 tons of silver.

Anticipating that the Spanish might be waiting for him on his return trip, Drake decided instead to cross the Pacific and return home via a western route. He first sailed northward to upper California, which he claimed for Elizabeth and named New Albion. (The Spanish had visited the area before him, however.) He spent a month in the San Francisco Bay in the summer of 1579, then made his way around the world. It was the first circumnavigation of the globe by an Englishman. Moreover, because Ferdinand Magellan had died during his 1519-1522 journey, Drake was the first commander of any nation to complete the voyage.

Following Drake's arrival in England on Sept. 26, 1580, not quite three years after he left, Elizabeth gave him a knighthood. He was also a hero to the shareholders, who reportedly received a 4,600 percent return on their investments — that is, for every £1 they put in, they received £47 after expenses. Three and a half centuries later, John Maynard Keynes would credit the voyage with cleaning up Elizabeth's balance sheet and helping to finance the great British trading companies:

> Indeed, the booty brought back by Drake in the *Golden Hind* may fairly be considered the fountain and origin of British foreign investment. Elizabeth paid off out of the proceeds the whole of her foreign debt and invested a part of the balance (about £42,000) in the Levant Company; largely out of the profits of the Levant Company there was formed the East India Company, the profits of which during the seventeenth and eighteenth centuries were the main foundation of England's foreign connections; and so on.

Drake's next two voyages were explicitly both commercial and military, seeking Spanish treasure for investors while also carrying out Elizabeth's orders to attack strategic targets. First was his 1585-1586 raid on Spanish interests in the Caribbean. His fleet plundered the port city of Santo Domingo, the colonial capital, located in the present-day Dominican Republic, and ransomed the town of Cartagena on the Caribbean coast of present-day Colombia. The following year, Drake led a 23-ship fleet in successfully attacking the port of Cadiz in the Spanish homeland, destroying some 37 Spanish naval and merchant ships, as well as plundering Spanish merchant ships in the area.

Single-Handed Victory

Among the English sailors taking part in the Cadiz raid was a 27-year-old named Christopher Newport. From there, Newport would rise quickly in the world of privateering; sailing under Drake was apparently a good credential. Within a few years, in 1589, Newport was second in command of the *Margaret*, a privateer ship financed by several London merchants. The following year, he was captain of the *Little John*, which sailed with several other ships to the Caribbean to patrol for Spanish vessels.

During an attack on two ships carrying treasure from Mexico to Havana, the privateers encountered tough resistance and Newport lost his right arm. To make matters worse, the battle ended without any treasure — one of the Spanish ships sank and the other escaped.

Despite this rocky start to Newport's career as a captain, he would spend 13 years privateering successfully in the Caribbean. His most renowned voyage during those years came in 1592, when he commanded a fleet of four ships that plundered Spanish towns on the island of Hispaniola and in Honduras. Two of the ships then returned to England with the loot, while the other two — including Newport's flagship, the *Golden Dragon*, stayed behind to seek further adventure.

They joined forces with another English privateer fleet; in keeping with the practice of the time, the leaders of the two fleets would have negotiated "consortship" agreements defining their responsibilities and the division of the fruits of their joint labors. On August 3, the combined fleets spotted and captured an enormous treasure ship, the *Madre de Dios*. It was the greatest plunder of the century, freighted with £500,000 worth of gems, silks, and spices. When Newport brought it back to port in England, he had made his name as the nation's foremost mariner of the Caribbean. The fortunate shareholders in the voyage included the queen.

Newport's Caribbean journeys continued. Near the end of Elizabeth's reign in 1603, John Chamberlain, a gossipy Londoner, reported to a friend:

> Here is fresh news out of Spain of one Newport, a seaman, that with two ships hath taken five frigates laden with treasure coming from Cartagena and Nombre de Dios [a Panamanian port] towards the Havana; if all be true that is reported, it will prove the greatest prize that I ever heard of, for they that are most modest talk of two millions at least. The King of Spain hath sent out eight men-of-war to waylay and intercept him. …

Newport, like his fellow privateers, did not face a loss of social status from his predatory occupation. On the contrary, he married into a wealthy family and even served on the vestry of his church. Privateering was an activity, rare for the England of the era, that involved social classes from the highest to the lowest ranks. In 1596, Newport bought a share in a privateer company himself.

Privateering as State Policy

The financial benefits that Elizabeth and her nation received from privateering are obvious. An ambassador to England from Venice later opined, "Nothing is thought to have enriched the English more or done so much to allow many individuals to amass the wealth they are known to possess as the wars with the Spanish in the time of Queen Elizabeth." Kenneth R. Andrews, then an economic historian at the University of Hull, estimated in 1964 that privateering during her reign amounted to between 10 percent and 15 percent of England's total imports. One Julius Caesar — not the Roman emperor, but an admiralty judge who would later serve as Elizabeth's Chancellor of the Exchequer — wrote in 1590 that Elizabeth's own gains from privateering up to that point had amounted to more than £200,000, or roughly £26.8 million ($42 million) in today's currency.

At the same time, Elizabeth's policy weakened the Spanish: Not only did they lose treasure, their merchant fleet suffered the capture of more than 1,000 ships. Gary Anderson and Adam Gifford, Jr., economists at California State University, Northridge, argued in a 1991 article that privateering acted as a substitute for a standing national navy, and in fact was a form of private production of naval power.

In addition to the financial and military benefits of privateering, it made a crucial contribution to England's future through its effect of building up human capital. As England lacked any settlements in the New World during Elizabeth's time other than the short-lived Roanoke colony, it would have been far-fetched to predict that England would ever have a significant presence there — let alone that it would someday dominate most of the East Coast of North America (including the area that comprises the present-day Fifth District of the Federal Reserve System). Any reasonable observer would have assumed that the New World would continue to be dominated by Spain and, to a much lesser degree, by France. An unintended consequence of privateering was that it enabled England, at no cost to the Crown, to develop a cadre of captains and sailors with experience in crossing the Atlantic and navigating the Caribbean.

It is thus unsurprising that when the first Jamestown colonists set out on the River Thames in late December of 1606, at least two of their three ships were commanded by former privateers. Newport was the admiral of the voyage and the commander of the flagship, the *Susan Constant*. Bartholomew Gosnold, another former privateer, captained the *Godspeed*. (The background of John Ratcliffe, captain of the third ship, the *Discovery*, is unknown.) Still another ex-privateer, George Somers, would lead the expedition that rescued the Jamestown colony in May of 1610 after the so-called Starving Time. The Elizabethan privateering companies created the path to an English New World. **RF**

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CALLING THE SHOTS • *continued from page 31*

managers would better serve their teams by focusing on the factors of Wins Produced, when faced with lots of information they tend to focus on what's easiest to see at the moment.

Berri and Schmidt draw some compelling conclusions about why the experts get it wrong, but they are not without their critics. Since *Wages of Wins* was published, other statisticians and basketball experts have argued that they disregard key factors in their models and overstate their results. In response, Berri and Schmidt write that the criticism stems from the fact that "Wins Produced is not consistent with popular perceptions. Given the problems with popular perceptions, though, this result shouldn't be a surprise." Whether or not you agree with them, you may think twice before celebrating your favorite team's new draft pick. **RF**

FAILED BANKS • *continued from page 5*

Office of the Comptroller of the Currency (OCC) announced that it would begin issuing "shelf charters," conditional approval granted to investors seeking a national bank charter. With a shelf charter, the investors complete the preliminary paperwork to become a bank, but the charter remains on hold ("on the shelf") until the investors are in a position to acquire a specific bank. At the same time as the OCC rule change, the FDIC announced that it would open the bidding to groups that did not currently have, but were pursuing, a national bank charter, thereby allowing investors with shelf charters to bid. Similarly, the Office of Thrift Supervision (OTS), which regulates savings banks, reinstituted a "pre-clearance" process, further expanding the pool of bidders.

Although some believe that private equity ownership of banks poses new risks, Kevin Mukri, spokesman for the OCC, emphasizes that shelf charters are "not a loophole for private investors. They can't go off and do their own thing — they have to become a national bank. They have to become subject to all the national rules and regulations." (A national bank is one that is chartered and regulated by the OCC rather than by the state.)

So far, three investor groups have gone on to submit bids and earn final approval from either the OCC or the OTS and the FDIC. Being eligible to submit a bid doesn't assure its success. Regulators review the management, funding, and business plans of would-be banks, and preliminary approval isn't a guarantee of final approval. Two of the three successful bids were for banks in the Fifth District. Bay National Bank in Baltimore was acquired by the Washington, D.C. firm Hovde Private Equity Advisors LLC. First National Bank of the South, based in Spartanburg, S.C., was purchased by North American Financial Holdings, which also picked up two banks in Georgia and Florida.

Both Bay National and First National were fairly young banks, established in 2000, and they expanded rapidly, making real estate loans during the boom years of the 2000s. It's a business model that was replicated across the nation, and whose effects reverberate more than a year after the end of the recession. In 2010, 157 banks failed in the United States, up from 140 in 2009 and 25 in 2008, bringing the total to 322 since the beginning of 2008. In contrast, between 1995 (roughly the end of the Savings and Loan crisis) and 2007, just 58 banks failed.

Tony Plath, a finance professor at the University of North Carolina-Charlotte, expects the number of failures to bottom out in 2011, although he projects that the industry may yet lose another 500 banks. The FDIC currently has about 850 banks on its confidential "watch list." Given the small number of shelf charters, they may not be a major new source of bank acquisitions. As the supply of failed banks continues to increase, however, the industry may have to turn to new sources of demand.

— Jessie Romero

WHAT CAUSES RECOVERIES? • *continued from page 16*

such as information technology, robotics, and the use of modern telecommunications technology to interact with technologically skilled workers in low-wage markets.

Diagnosing the reasons behind the new shape of American recoveries — if, indeed, the last several recoveries represent a long-term change — remains a challenge for the economics discipline. Chicago's Cochrane notes that it is an unsolved puzzle. "In the early 20th century, we had frequent deep recessions, but we bounced out of them quickly," he says. "Now we seem to be bouncing out of them slower and slower. Europe certainly got to a position in the 1970s and 1980s where it would get stuck without ever bouncing out, usually for various policy reasons. Maybe that's what's going on now in the United States, too. That would be depressing."

It surely would. On the other hand, anyone old enough to have survived the stagflation of the 1970s and the recessions of the early 1980s knows that thoughtful policy changes can bring a powerful recovery even in exceptionally tough times. Joe Palooka may be woozy, but the ring doctor hasn't stopped the fight yet. **RF**

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How The Recession Affects State and Local Tax Shortfalls — and How Those Shortfalls Affect the Recovery

BY RICHARD KAGLIC

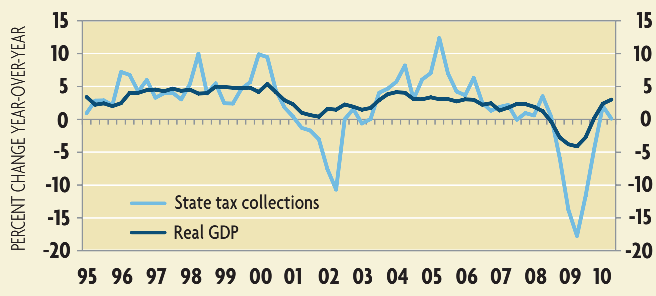
On Sept. 20, 2010, the National Bureau of Economic Research declared an official end to the worst recession in the United States since the Great Depression, pegging the trough at June 2009. But the pace of recovery since that time has hardly been gratifying: GDP growth has averaged less than 3 percent in those five quarters as compared to an average of nearly 7.5 percent in the six quarters following the trough of the 1982 recession. Moreover, the Census Bureau's latest annual report on income, poverty, and health insurance coverage in the United States, also released in September, estimated that the number of Americans living in poverty in 2009 was higher than at any point in the 51-year history of the series. So while it is welcome news that the economy is growing again, the Census report provided a timely reminder that struggles continue for many Americans.

Much of the burden of providing vital services — such as job training, health care, and transportation services — to those who have been adversely affected by the downturn often falls on state and local governments. Yet state and local governments have been battered by the recession as well. Tax revenue collections fell well short of planned levels when the recession was at its worst, and governments faced increasing demand for their services, rendering those revenue declines even more problematic.

While the primary cause of these revenue shortfalls is the severity of the most recent recession, another factor is that governments have increasingly moved to funding long-term and relatively predictable expenditure outlays with cyclical (and often volatile) revenue streams. As a result of this mismatch, budgets appear to have become much more vulnerable to downturns in the business cycle. The problems associated with this imbalance will likely grow worse before they get better. The deep recession and slow recovery have left taxpayers and policymakers with little appetite for new "revenue enhancements." As households struggle to rebuild their own balance sheets, it appears the last thing they feel obligated to do is rebuild the government's, and elected officials have acted accordingly.

This essay examines the effect that the 2007-2009 recession has had on states' fiscal positions and, in turn, how those fiscal positions are affecting the nascent economic recovery, particularly in the Fifth District. The emphasis is on the five states that make up the region: Maryland, North Carolina, South Carolina, Virginia, and West Virginia.

GDP and State Tax Revenues



SOURCE: U.S. Census Bureau and Bureau of Economic Analysis

The Recession's Effect on State Tax Revenues

The immediate problem faced by state and local governments is predominantly a revenue-side phenomenon. This is not to say that expenditures played no role in the yawning budget gaps that emerged during the recession. But it was not a rise in expenditures that threw governments' budgets out of balance; it was a sudden and unexpected fall in revenues. Since nearly all states (including each of the five Fifth District states) are required to balance their budgets, this is a problem.

State and local tax revenue collections are directly related to economic activity. When the economy picks up, firms boost output and hire more workers. When job growth is sustained, those workers are confident enough to increase purchases of goods, services, and new homes. With 43 of the 50 states imposing individual income taxes and all states levying sales taxes in some form, governments see increased revenues from those sources. They will also see increases in real estate transfer taxes and property taxes as housing activity and home prices increase. When the economy contracts, these trends reverse.

While predicting the directional response of tax revenue collections to changes in economic activity is easy, forecasting the magnitude of that response is far more challenging. And it has become more so over the course of the past two decades. Historically, changes in economic growth were accompanied by similar changes in general revenue tax collections. At times, tax collections would change a little faster or a little slower than GDP, but the relationship remained fairly tight.

That tight relationship appeared to break down during the recession that ended in November 2001. During that recession, which was very shallow by most measures, state level tax collections decreased far more than economic output (see chart). In a 2008 working paper, Federal Reserve

Bank of Chicago economists Rick Mattoon and Leslie McGranahan suggest that much of this break can be explained by states' increasing reliance on individual income taxes (and the rising importance of capital gains in state income tax collections) to fund expenditures. Nationwide, the average percentage of total state tax revenues derived from individual income taxes had increased from a little more than 10 percent in the early 1960s to more than 35 percent prior to the recession in 2001. This nationwide trend was evident to varying degrees in each state in the Fifth District.

Given the 2001 experience, one could surmise that a significant economic recession would have dire consequences for state governments. The most recent downturn, with its roughly 8.5 million job losses and considerable declines in capital gains, illustrated just that. On aggregate, states saw revenues fall off precipitously in the fourth quarter of 2008 and experienced double-digit declines (year-over-year) in the first three calendar quarters of 2009. And few state governments were able to escape the carnage. According to the Center for Budget Policies and Priorities, only five states saw year-over-year increases in tax collections in fiscal 2009, when the fiscal crisis intensified dramatically. Meanwhile, 14 states experienced declines in excess of 10 percent. So the shortfalls in state tax revenue collections were both severe and widespread across the nation.

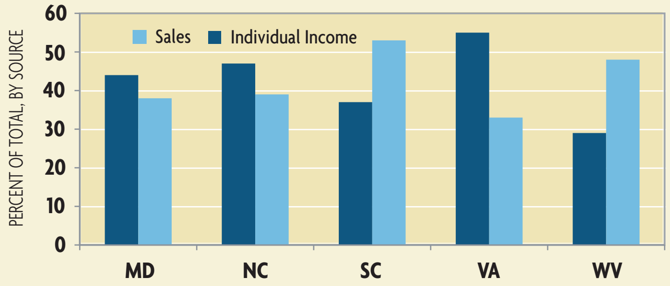
Three of the 14 states that experienced those sharp decreases in tax collections — North Carolina, South Carolina, and Virginia — are in the Fifth District. Generally speaking, states in the Northeast, the Midwest, and the West are more likely to rely on personal income taxes to pay for general expenditures, while states in the South lean more heavily on sales taxes. That generality does not always hold in the Fifth District, however (see chart). Virginia, Maryland, and North Carolina relied more heavily on individual income taxes heading into the most recent downturn, while South Carolina and West Virginia relied most heavily on sales taxes. (Even though South Carolina and West Virginia derive a greater share of their tax revenues from sales taxes than do the other three states, they saw the relative share of individual income taxes roughly triple over the past 50 years.)

Given Virginia's heavy reliance on individual income taxes, it is not surprising that its tax collections had the biggest decline among Fifth District states (-12.5 percent) when the national recession was at its worst in fiscal 2009. Yet South Carolina, which relies more on sales taxes, saw a significant drop as well (-10.5 percent). Even though South Carolina is less reliant on individual income taxes than Virginia (34 percent versus 52 percent), job losses in the state during the downturn were more severe. Total nonfarm employment in South Carolina fell about 7 percent as a result of the recession, whereas in Virginia job losses were closer to 4 percent.

Local government tax collections held up well when compared to state tax collections. As mentioned above, state level tax collections turned negative in year-ago comparisons in the fourth quarter of 2008 and remain well below prerecession peaks. As of the first quarter of 2010, local government tax collections had not yet turned negative, although their growth rate had slowed materially.

The primary factor behind the relatively better performance of local tax collections lies in local tax structures. Nationwide, states derive roughly 80 percent of total tax revenues from sales and individual income taxes, on average. By contrast, local governments derive a little more than 20 percent of total taxes from these two sources and rely heavily on property taxes as a source of revenue. In fact, property taxes made up 71 percent of local government tax collections in the year prior to the latest recession. Unlike sales and individual income taxes, which are highly cyclical, the property tax base is a less volatile and more reliable funding source. Property taxes are not a major revenue source for states, typically accounting for 2 percent or less of total state tax collections annually. The one exception in the Fifth District is Maryland, where property taxes account for about 4 percent of total collections.

Tax Revenues by State



SOURCE: U.S. Census Bureau

Budget Gaps

The sudden drop in states' tax collections nationwide left most with substantial gaps between actual and previously forecasted revenues. The tendency of demand for government services to increase during recessions only compounded the problem. Reports by the National Governors Association (NGA) and the National Association of State Budget Officers (NASBO) track the progression of states' difficulties as the economy entered the 2007-2009 recession. They reported in the spring 2007 edition of their *The Fiscal Survey of States* that only three states had to make downward adjustments to their enacted fiscal 2007 budgets, with the total cuts amounting to approximately $170 million. By the spring of 2008, the number of states forced to cut enacted budgets increased to 13 for total cuts of $5.2 billion. By the spring of 2009, 42 states cut their enacted budgets by a combined $46.2 billion. All told, states will have faced budget gaps amounting to nearly $300 billion between fiscal 2009 and fiscal 2012. Federal to state transfers provided by the American Recovery and Reinvestment Act

(ARRA) will offset roughly $135 billion of that, but very little of those funds will be available beyond fiscal 2011.

Although fiscal 2009 (which ran from July 1, 2008 through June 30, 2009) covered the worst of the economic downturn, the problems with state's fiscal conditions continued through fiscal 2010 and will likely persist much longer. In fiscal 2010, each of the five Fifth District states had to cut expenditures after their budgets had already been enacted, with those cuts ranging from $120 million in West Virginia to more than $1 billion in Virginia, according to NGA and NASBO.

The problems at the state level have had, and will continue to have, adverse effects at the local level. For local governments, having a more stable tax base only partially shields them from the deep fiscal duress that states are under. Since tax collections account for just 36 percent of their total revenues, local governments rely heavily on state governments to help them pay the bills. In fact, local governments get roughly 30 percent of their total revenues from the states. In the most recently completed fiscal year (2010), NASBO reported that 22 states reduced local aid to help close budget gaps; among them were Maryland, South Carolina, and Virginia.

In more normal times, local governments receive very little funding from the federal government. But these are not normal times. A large share of ARRA funds were sent directly to local governments as states pulled back on their contributions. With the ARRA funds set to run their course by the end of fiscal 2011, states will inevitably cut transfers to local governments. Thus, local governments still face considerable challenges in coming years.

Effect of Budget Cuts on GDP and Employment

To this point, we have only examined state and local government in terms of revenues. But those revenues pay for the plethora of services provided by state and local governments. And a slowdown in government spending will detract from an already modest economic recovery, at least in the short run. Moreover, the cuts will be more painful in some areas than in others. In particular, rural areas are likely to suffer more than metropolitan areas, for reasons which will be addressed in a moment.

State and local government spending, through the provision of services such as education, police protection, and health care, as well as their investments in roads, bridges, and schools, accounts for nearly 12.5 percent of GDP in the United States. Cuts in those services and investment have already been a drag on GDP growth. State and local government spending made a negative contribution to GDP growth in three of the four quarters during fiscal 2010, with the reduction shaving 0.3 percent off headline growth, on average. State and local government spending made a slight positive contribution to GDP growth in the second quarter of 2010, as those states with fiscal years ending on June 3 released their remaining budgeted expenditures.

State and local budget cuts are also affecting employment. State and local governments employed nearly 20 million workers in the U.S. That is about 15 percent of total payroll employment in the nation, more than the manufacturing and construction industries combined. As a result of the fiscal duress, state and local governments have been cutting jobs and more are likely to follow. Payroll employment in the state and local government has been declining since the recession started in December of 2007. Through the third quarter of 2010, the sector had shed about 300,000 jobs, or roughly 1.5 percent of total sector employment. Compared to the private sector, which lost about 6 percent of payroll employment, this does not look all that bad. While the private sector showed modest increases in payroll employment over the first three quarters of 2010, however, state and local government employment continued to move lower. This trend is likely to persist for several more quarters.

In the Fifth District, state and local government employment currently accounts for about 16 percent of total nonfarm employment. South Carolina, West Virginia, and North Carolina exceed the district-wide and nationwide averages while Virginia and Maryland have slightly lower averages. To date, cuts in Fifth District state and local government jobs have not kept pace with national declines. This scenario is unlikely to persist given the severe revenue declines in Fifth District states.

An important common thread in both levels of government is the preponderance of education jobs. Combined employment in education accounts for more than one half of all government jobs at the state and local levels. Governments are reluctant to reduce funding for education, even in moderately tough economic times. Nonetheless, the severe drop in revenues has led to declines in education funding and education jobs. Overall, state and local educational employment is down between 1 percent and 1.5 percent since its peak in mid-2008, with the majority of that decline at the local level. It is unlikely that state educational institutions can maintain current staffing levels with such severe declines in revenue, even with increased enrollment and an ability to hike tuitions.

The cutbacks in education and other state and local government spending are likely to

QUICK FACT

Localities generally did better than states in maintaining their tax revenues during the recession. On average, states derive roughly 80 percent of total tax revenues from sales and individual income taxes. In contrast, local governments rely mainly on property taxes. In fact, property taxes made up 71 percent of local government tax collections in the year prior to the recession. Unlike sales and individual income taxes, which are highly cyclical, the property tax base is a less volatile and more reliable funding source.

affect rural areas disproportionately. In a 2010 essay for the Federal Reserve Bank of Kansas City, Alison Felix and Jason Henderson show that state government transfers account for a far greater share of rural governments' total revenue compared to their metropolitan counterparts. Likewise, state and local governments account for a larger percentage of total payroll employment in rural counties, and an even larger share of personal income. Inasmuch as West Virginia and the Carolinas have the largest rural populations of Fifth District states, these problems have particular significance.

QUICK FACT

States in the Northeast, the Midwest, and the West are more likely to rely on personal income taxes to pay for general expenditures, while states in the South lean more heavily on sales taxes.

Longer-Term Liabilities

While the general purview of this essay is state and local government deficits, their efforts to eradicate those deficits, and what impact those efforts may have on the recovery, there is a large, longer-term problem looming on the horizon for many states and it would be remiss to ignore the subject completely. And that problem is an alarming underfunding of state and local governments' retirement and other post-employment benefits. Recent research by the Center for Retirement Research suggests that the total liabilities of state and local government post-employment benefits amount to approximately $4.9 *trillion*, of which $2.2 trillion is unfunded. Moreover, as state and local governments continue to struggle with yawning gaps between general fund revenue collections and general fund expenditures, many have slowed their contributions to their already-underfunded retirement funds. While 49 of the 50 U.S. states are obligated to pay for current expenditures with current revenues, few are obligated to properly fund their longer-term expenditure obligations. Unfortunately, few have.

Conclusions

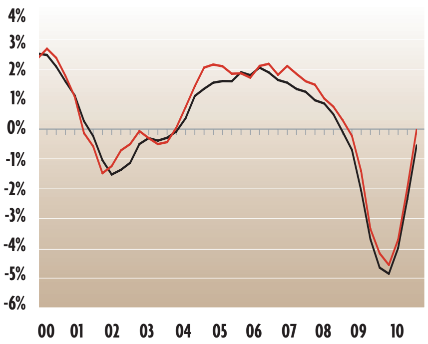
State and local governments are facing their most challenging fiscal positions since at least the Great Depression. While certainly difficult to predict ahead of time, the fiscal crisis is understandable when considering the lessons of the 2001 recession and the severity of the most recent economic downturn, especially the job losses. An inability to pay for key services has already affected economic growth in many areas through cuts to services, investments, and employment (which continues to trend downward). Governments need to find better ways to match their long-term and fairly predictable expenditure plans with similarly reliable funding sources to minimize the gaps that are otherwise bound to form during an economic downturn. This will help limit the effect of downturns on government services. Moreover, policymakers will have to find a way to provide the services and produce the investments that enhance long-term economic growth while also meeting the needs of their most vulnerable citizens more efficiently. Given the magnitudes of the budget shortfalls following the most recent recession, it is unlikely that governments will be able to tax their way out of the crisis. States will probably have to rely on a combination of "revenue enhancements" and spending cuts to get their fiscal houses back in order. **RF**

State Data, Q2:10

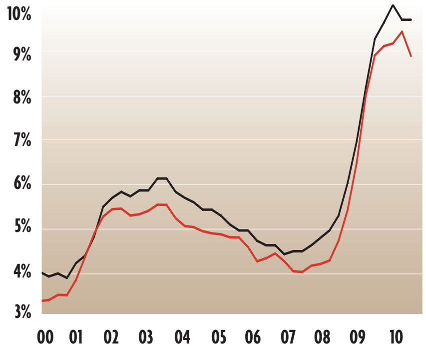
	DC	MD	NC	SC	VA	WV
Nonfarm Employment (000s)	**710.6**	**2,525.9**	**3,891.8**	**1,825.5**	**3,639.1**	**741.3**
Q/Q Percent Change	0.4	1.4	0.7	0.5	1.1	1.0
Y/Y Percent Change	1.2	-0.1	0.0	0.3	-0.2	-0.9
Manufacturing Employment (000s)	**1.4**	**114.6**	**431.6**	**208.2**	**230.2**	**50.1**
Q/Q Percent Change	5.0	-0.8	0.4	0.4	0.5	1.6
Y/Y Percent Change	0.0	-3.6	-4.3	-2.9	-4.1	-1.9
Professional/Business Services Employment (000s)	**151.1**	**389.8**	**473.7**	**213.2**	**641.9**	**58.9**
Q/Q Percent Change	0.2	0.2	1.6	3.3	1.0	0.9
Y/Y Percent Change	2.3	1.5	2.8	7.4	0.7	-1.0
Government Employment (000s)	**249.0**	**498.2**	**749.0**	**360.1**	**702.1**	**150.9**
Q/Q Percent Change	1.1	2.3	2.9	2.3	1.4	0.8
Y/Y Percent Change	3.8	0.8	5.0	3.4	0.0	-0.4
Civilian Labor Force (000s)	**337.5**	**2,965.3**	**4,563.0**	**2,158.6**	**4,190.8**	**786.0**
Q/Q Percent Change	0.4	0.2	0.3	-0.7	0.6	-0.2
Y/Y Percent Change	1.9	-1.1	0.2	-1.2	-0.1	-2.2
Unemployment Rate (%)	**10.5**	**7.3**	**10.4**	**11.1**	**7.1**	**8.8**
Q1:10	11.8	7.6	11.1	12.4	7.1	9.4
Q2:09	9.7	7.0	10.9	11.7	6.8	7.8
Real Personal Income ($Mil)	**38,066.3**	**254,753.4**	**305,343.2**	**137,606.4**	**322,400.1**	**54,137.5**
Q/Q Percent Change	1.3	1.1	1.5	1.6	1.3	1.3
Y/Y Percent Change	1.1	0.6	1.7	1.4	0.6	0.5
Building Permits	**31**	**3,471**	**9,635**	**3,959**	**5,695**	**580**
Q/Q Percent Change	-89.6	16.3	5.5	-10.3	9.7	38.1
Y/Y Percent Change	-11.4	35.9	-3.0	-3.3	-1.6	36.8
House Price Index (1980=100)	**561.5**	**432.3**	**320.3**	**324.2**	**412.0**	**226.8**
Q/Q Percent Change	0.0	-1.0	-0.3	-1.2	-0.2	0.8
Y/Y Percent Change	0.1	-5.6	-4.8	-5.8	-4.3	-1.1
Sales of Existing Housing Units (000s)	**10.4**	**86.0**	**162.4**	**84.8**	**118.4**	**28.4**
Q/Q Percent Change	23.8	16.8	18.7	23.3	8.8	7.6
Y/Y Percent Change	36.8	29.5	31.4	26.9	-6.1	16.4

NOTES:
Nonfarm Payroll Employment, thousands of jobs, seasonally adjusted (SA) except in MSAs; Bureau of Labor Statistics (BLS)/Haver Analytics, Manufacturing Employment, thousands of jobs, SA in all but DC and SC; BLS/Haver Analytics, Professional/Business Services Employment, thousands of jobs, SA in all but SC; BLS/Haver Analytics, Government Employment, thousands of jobs, SA; BLS/Haver Analytics, Civilian Labor Force, thousands of persons, SA; BLS/Haver Analytics, Unemployment Rate, percent, SA except in MSA's; BLS/Haver Analytics, Building Permits, number of permits, NSA; U.S. Census Bureau/Haver Analytics, Sales of Existing Housing Units, thousands of units, SA; National Association of Realtors®

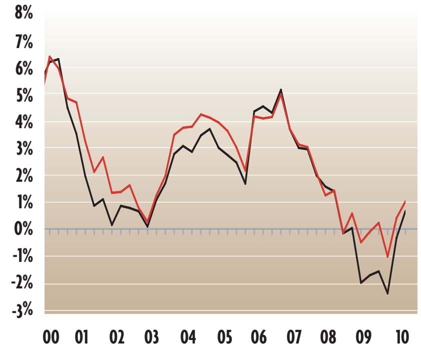
Nonfarm Employment
Change From Prior Year
First Quarter 2000 - Second Quarter 2010



Unemployment Rate
First Quarter 2000 - Second Quarter 2010

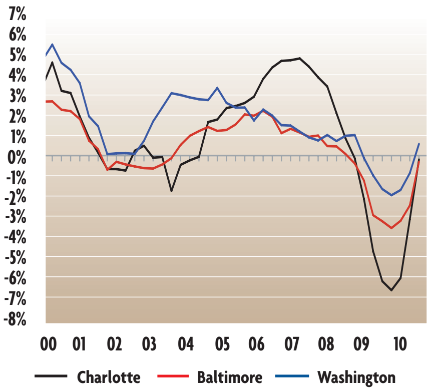


Real Personal Income
Change From Prior Year
First Quarter 2000 - Second Quarter 2010

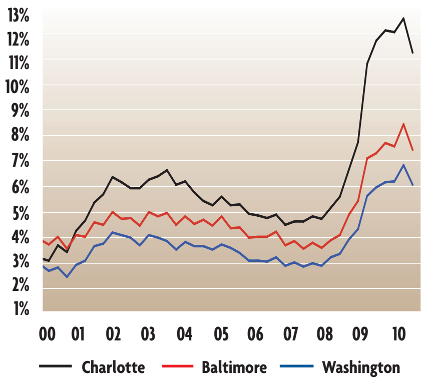


Fifth District **United States**

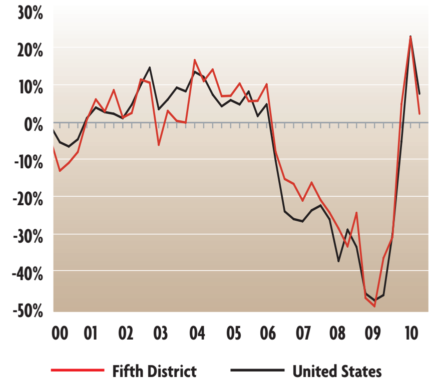
Nonfarm Employment Metropolitan Areas
Change From Prior Year
First Quarter 2000 - Second Quarter 2010



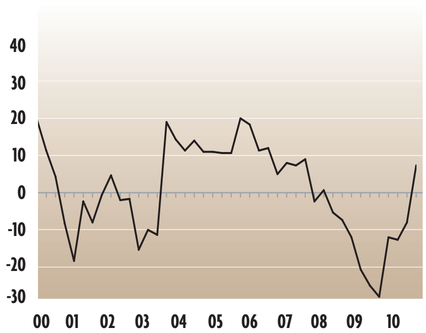
Unemployment Rate Metropolitan Areas
Change From Prior Year
First Quarter 2000 - Second Quarter 2010



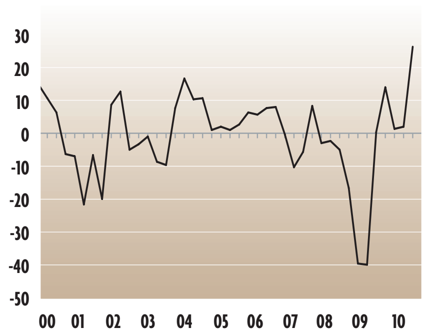
Building Permits
Change From Prior Year
First Quarter 2000 - Second Quarter 2010



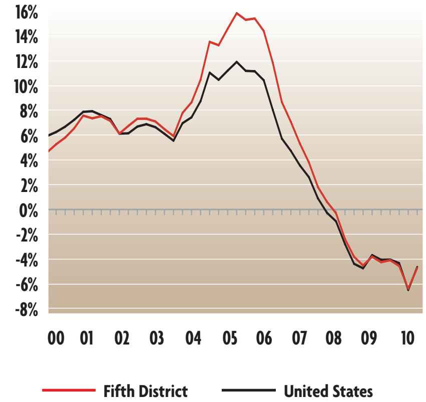
FRB—Richmond Services Revenues Index
First Quarter 2000 - Second Quarter 2010



FRB—Richmond Manufacturing Composite Index
First Quarter 2000 - Second Quarter 2010



House Prices
Change From Prior Year
First Quarter 2000 - Second Quarter 2010



NOTES:
1) FRB-Richmond survey indexes are diffusion indexes representing the percentage of responding firms reporting increase minus the percentage reporting decrease.
The manufacturing composite index is a weighted average of the shipments, new orders, and employment indexes.
2) Building permits and house prices are not seasonally adjusted; all other series are seasonally adjusted.

SOURCES:
Real Personal Income: Bureau of Economic Analysis/Haver Analytics.
Unemployment rate: LAUS Program, Bureau of Labor Statistics, U.S. Department of Labor, http://stats.bls.gov.
Employment: CES Survey, Bureau of Labor Statistics, U.S. Department of Labor, http://stats.bls.gov.
Building permits: U.S. Census Bureau, http://www.census.gov.
House prices: Federal Housing Finance Agency, http://www.fhfa.gov.

Metropolitan Area Data, Q2:10

	Washington, DC	Baltimore, MD	Hagerstown-Martinsburg, MD-WV
Nonfarm Employment (000s)	**2,414.2**	**1,277.9**	**96.9**
Q/Q Percent Change	2.4	3.5	2.6
Y/Y Percent Change	0.6	-0.3	-1.0
Unemployment Rate (%)	**6.1**	**7.4**	**9.4**
Q1:10	6.8	8.4	11.2
Q2:09	6.0	7.3	9.4
Building Permits	**3,157**	**1,314**	**271**
Q/Q Percent Change	-7.1	-10.8	59.4
Y/Y Percent Change	10.3	24.7	54.9

	Asheville, NC	Charlotte, NC	Durham, NC
Nonfarm Employment (000s)	**166.1**	**811.4**	**287.4**
Q/Q Percent Change	2.6	1.9	1.9
Y/Y Percent Change	-0.8	-0.2	0.6
Unemployment Rate (%)	**8.5**	**11.2**	**7.4**
Q1:10	9.9	12.6	8.2
Q2:09	9.2	11.7	8.0
Building Permits	**389**	**1,703**	**505**
Q/Q Percent Change	25.1	-2.5	13.2
Y/Y Percent Change	20.1	-18.4	-16.7

	Greensboro-High Point, NC	Raleigh, NC	Wilmington, NC
Nonfarm Employment (000s)	**341.0**	**498.4**	**138.2**
Q/Q Percent Change	1.3	1.4	2.5
Y/Y Percent Change	-1.0	-0.6	-2.3
Unemployment Rate (%)	**10.8**	**8.4**	**9.7**
Q1:10	12.1	9.3	11.3
Q2:09	11.5	8.9	9.9
Building Permits	**518**	**1,567**	**587**
Q/Q Percent Change	-3.5	4.7	-5.3
Y/Y Percent Change	-22.6	1.0	-25.1

	Winston-Salem, NC	Charleston, SC	Columbia, SC
Nonfarm Employment (000s)	**208.7**	**290.1**	**348.0**
Q/Q Percent Change	1.4	3.0	0.9
Y/Y Percent Change	-0.1	1.1	0.2
Unemployment Rate (%)	**9.6**	**8.8**	**8.8**
Q1:10	10.8	10.2	10.0
Q2:09	10.2	9.5	9.3
Building Permits	**313**	**741**	**842**
Q/Q Percent Change	22.3	-26.1	-9.2
Y/Y Percent Change	-25.8	-19.0	-2.3

	Greenville, SC	Richmond, VA	Roanoke, VA
Nonfarm Employment (000s)	**293.8**	**601.9**	**155.3**
Q/Q Percent Change	0.7	1.9	2.0
Y/Y Percent Change	-0.8	-1.4	-0.7
Unemployment Rate (%)	**9.5**	**7.7**	**7.3**
Q1:10	11.0	8.5	8.3
Q2:09	10.4	7.5	7.2
Building Permits	**379**	**1,029**	**140**
Q/Q Percent Change	-29.2	16.5	30.8
Y/Y Percent Change	-0.3	26.7	33.3

	Virginia Beach-Norfolk, VA	Charleston, WV	Huntington, WV
Nonfarm Employment (000s)	**741.2**	**148.1**	**116.7**
Q/Q Percent Change	2.3	2.7	2.4
Y/Y Percent Change	-0.8	-1.0	0.1
Unemployment Rate (%)	**7.3**	**7.8**	**8.3**
Q1:10	7.9	9.1	9.3
Q2:09	6.7	7.0	8.0
Building Permits	**1,162**	**34**	**8**
Q/Q Percent Change	3.3	-27.7	-33.3
Y/Y Percent Change	-16.2	-10.5	-11.1

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Opinion

How Many Kinds of Unemployment?

BY JOHN A. WEINBERG

The persistently high level of unemployment in the United States has stimulated a spirited debate about its causes. This debate has focused largely on the importance of structural factors — the possibility that demand for labor is rising in the economy, but not in those occupations, industrial sectors, or geographic locations where the unemployed are predominantly looking for work. Those who think such structural causes are important point to the historically high proportion of long-term unemployed (those out of work for more than 26 weeks) and to the upturn in reported job vacancies. Those on the other side of the argument point to the fact that the sharp decline in and continued low levels of economic activity have been pretty widespread, which is seemingly inconsistent with the notion that the economy is dealing with the costs of shifting resources from depressed to robust sectors or geographic locations. They tend to argue, instead, that unemployment is high (and aggregate production low) because of a shortfall of the aggregate demand for goods and services.

This debate drew me back to the textbooks from the introductory macroeconomics courses I have taken or taught in my life. These textbooks typically had (and still have) sections on the types of unemployment, which are identified as a three-part taxonomy — structural, cyclical, and frictional. Structural unemployment, as in the current debate, refers to the effects of shifts in economic activity between different parts of the economy — either because of changing relative demands or changing technology, or both. Cyclical unemployment is identified as the joblessness that results from a downturn in the economy, often thought of as resulting from falling aggregate demand. Finally, frictional unemployment captures the fact that some people are always "in between" — between their last job and their next job, or in some cases, between their last job and leaving the labor force.

I wonder how useful this taxonomy really is. An unemployed person's current predicament is made no easier whether it is the result of structural, cyclical, or frictional forces. On the other hand, if there are structural factors at play that could help that individual make longer-term plans — like training or relocation decisions — this information could be useful. Of course, the recent debate about structural versus cyclical factors is driven largely by peoples' thinking about policy responses — in particular how responsive unemployment might be to stimulative fiscal or monetary policy. An emphasis on cyclical factors often is offered as support for the idea that policies to boost aggregate demand will be effective in bringing down the unemployment rate. If, on the other hand, structural factors are more important, stimulative policy may make relatively little difference in the near term.

The third part of the textbook taxonomy — frictional unemployment — doesn't play much of a role in the popular debate. But even though its meaning in the textbook definitions is fairly narrow, there is an important sense in which all unemployment is frictional. The definition of an unemployed person is someone who does not have a job but is actively searching for one. The fact that searching can take time — that is, the fact that there are frictions that get in the way of unemployed workers finding available vacancies — is integral to the very existence of unemployment.

> As growth quickens, the responsiveness of unemployment could be revealing about the importance of structural and cyclical factors.

At the same time, I'm not so sure the distinction between structural and cyclical unemployment is as clear as the recent debates make it seem. There are always differences in the growth paths of different industries and regions, bringing about reallocation of labor that takes time and entails some unemployment. This shifting of economic activity is an important part of the dynamics that drive the business cycle, making it hard to fully distinguish what's structural and what's cyclical.

Thinking about unemployment as a search issue — which I think is the most useful way to frame the discussion — leads one to consider variations in unemployment over time in terms of changes in the rate at which people enter the search process, mainly through the loss of jobs, and the rate at which people exit the search process, mainly through finding jobs. These transition rates vary over time for a variety of reasons, both structural and cyclical. While many things remain uncertain, what seems clear is that the low rate at which people exit from unemployment is at the heart of the current sluggish behavior of the job market.

The economy has been growing, though the recovery has been slow and unemployment has come down very little from its peak. As the pace of growth likely quickens in 2011, the responsiveness of unemployment could be revealing about the relative importance of structural and cyclical factors in the current business cycle. That information would be useful to the writers of future textbooks and to future policy analysts, but surely less so to those now waiting for improvements in the labor market. **RF**

John A. Weinberg is senior vice president and director of research at the Federal Reserve Bank of Richmond.

NEXT ISSUE

What Drives Economic Thought?

Were economists caught by surprise by the financial crisis because the profession's models and dominant schools of thought are misguided? If so, how did it come to be that way? Studying how economic thought evolves helps us understand the value of what economists research today — and how economic predictions should, and should not, be used in policymaking.

Temporary Employment and the "Jobless Recovery"

Temporary employment is on the rise and accounted for more than a quarter of new private-sector jobs in 2010. Is this a sign that companies are getting ready to start hiring full-time workers? Or does it signal the beginning of a longer-term trend toward continued high levels of temporary hiring by firms?

Military Multipliers?

Military installations are welcoming an influx of personnel and families as the result of the 2005 Base Realignment and Closure decisions. Among others, Forts Lee in Virginia, Meade in Maryland, and Bragg in North Carolina will expand dramatically. That growth may bring benefits, yet it will also bring costs.

Federal Reserve

Economists have long speculated about the presence of market stigma that may dissuade banks from borrowing from the Fed's discount window. What evidence of stigma exists, and how will new requirements that the Fed publish the names of borrowers — a provision of the Dodd-Frank legislation — affect discount window activity? The article will be the first in a series on regulatory reform.

Jargon Alert

A "market failure" is commonly identified as when freely functioning markets fail to allocate resources according to economists' standard definition of efficiency. Market failures may imply a role for government policy, but they are far rarer than the term's frequent usage might imply.

Economic History

Cape Canaveral may get the headlines, but the Fifth District is home to a large part of the space industry that touches everyone's lives: communication satellites. What are the roots of the Fifth District's space industry?

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