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Switching

Electricity Moves to Retail Competition

 College Students and Credit Cards

- Scrap the Penny?
- Greenspan's Early Days at the Fed

REGIONFOCUS

COVER STORY

Charged by the Market: Electricity deregulation is finally starting to stir up retail competition in Maryland

Faced with soaring power bills, many consumers have questioned the wisdom of deregulation. But rising rates may have more to do with how Maryland implemented retail competition than problems with market-based pricing itself.

FEATURES

The Life and Times of Albemarle First: The Charlottesville, Va., banking market experienced significant consolidation in the mid-1990s, leading a few new banks to open their doors For one, it was a bumpy, but ultimately successful ride. The story of Albemarle First illustrates the sort of pitfalls new banks can

of Albemarle First illustrates the sort of pitfalls new banks can encounter and how they can be overcome.

Organic Promises: Is the grass greener on the organic side? The demand for higher-priced organic foods is growing, enticing

some farmers to make the switch from conventional means. But it's not for everyone.

Campus Plastic: College students cope with unsecured debt

Despite anecdotes about crippling credit card balances, there is a fairly solid consensus among mainstream economists that reports of out-of-control student debt have been overblown.

Arrested Development: Growth theory has come a long way. How much further can it go?

Understanding why some countries prosper and others stagnate is probably the biggest economic question of them all. But matching growth theory to the facts remains an elusive goal.

Where the Executives Roam: Corporations have more options for locating their headquarters than ever before, benefiting smaller metropolitan areas

Many observers question whether it's advisable to grant lavish incentives in pursuit of corporate headquarters, especially when it removes the focus from essential services necessary to support any type of economic activity.

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— PRESIDENT'S MESSAGE Credit Cards on Campus



Paying for college in the 21st century has grown increasingly expensive. Both public and private schools of higher education have ratcheted up their tuitions, and campus housing costs have also gone up. Meanwhile, student loans, while still widely available, don't always cover the full cost of a college education. To fill in the gaps, many students are turning to a financial instru-

ment that wasn't available to most of them just a couple of decades ago - credit cards.

In this issue of *Region Focus*, we examine the consequences of student debt, especially credit card debt. Are young people getting in over their heads? We consider the market for unsecured student borrowing from the perspective of both the consumer and the creditor. In looking closely at the question of whether youth debt is a big problem, we come away with a more ambiguous answer than you might have read elsewhere.

The most urgent question to address is whether creditors are unfairly taking advantage of a naïve population — young people with no significant income. The evidence suggests that this isn't happening, or at least that it isn't widespread. While studies show that most college students do have credit cards, their balances are actually lower today than they were in the late 1990s.

I have written before in these pages that protecting some borrowers at the expense of limiting the availability of credit to the many is rarely a good idea. In my mind, the case of student debt is no exception. Yes, there are cases when borrowers are victims of unscrupulous creditors. But to restrict credit based on wide-ranging characteristics — such as an adult borrower's age — is to use an overly blunt instrument. A better, more precise set of tools are the metrics that credit card issuers themselves use in deciding who is creditworthy and on what terms.

In fact, creditors have used technological advances to develop highly sophisticated systems for screening customers. As a result, credit cards now offer much lower rates than in years past and are available to a wider range of potential clients. This is not a bad thing. It has allowed a whole new set of people to smooth their consumption in line with their expected future earnings. Though it might at first seem counterintuitive that credit cards would be available to students with no regular income, this practice is actually based on the reasonable assumption that students will soon enter the work force and become loyal customers. I do not mean to downplay the very real issue of whether Americans are consuming too much and saving too little, especially those nearing retirement. But on the subject of student debt, I would point out an interesting observation. As our article notes, students' credit card balances tend to rise the closer they get to graduation. This is entirely rational, and the sort of thing that shouldn't alarm us. Knowing they are about to complete their studies and begin drawing a paycheck, most students seem to be making sound judgments about their future ability to pay down debt loads. Likewise, credit card issuers are pragmatically raising balance limits on older students, whose likelihood of being able to repay statistically increases with graduation.

Additionally, if there is one kind of debt economists generally agree is "good," it's the sort taken on to finance education. The payoffs from investments in human capital are overwhelmingly positive. This premise holds even today, amid rising tuition costs. We should be encouraging more people to invest in their future earning power, and the best way to do that is to earn a college diploma. In this light, the emergence of credit cards in financing college ought not to be such a cause for concern. Amid rising tuitions and campus living expenses, credit cards and student loans together constitute a bundle of tools that students use on their way to a bachelor's degree and beyond.

Targeted policies to curb abusive credit card lending practices are in place. Useful, too, can be educating youthful consumers about the sometimes unforgiving world of unsecured debt. Helping would-be cardholders better understand the basic trade-offs — both the benefits and the costs — of taking on credit card debt would be beneficial not only when they are making such immediate choices but also when they are confronted with future financial decisions. Unnecessarily broad restrictions, on the other hand, are more likely to harm the general welfare than improve it. From a typical college student's perspective, having a credit card might be a much better situation than not even being eligible for one.

JEFFREY M. LACKER PRESIDENT FEDERAL RESERVE BANK OF RICHMOND

Federal Reserve -Initiation by Fire

BY CHARLES GERENA

Alan Greenspan faced a stock market crash just two months after becoming Fed Chairman in August 1987. His response would reverberate over the next three years, and beyond alking down the marble hallways of the Eccles Building, Ben Bernanke follows in the footsteps of the previous Chairman of the Federal Reserve Board of Governors, Alan Greenspan. Bernanke's legendary predecessor is a tough act to follow, but it's easy to forget that Greenspan had big shoes to fill when he stepped into the Chairman role in August 1987.

Paul Volcker, with his 6-foot-7-inch stature and forceful personality, earned the respect of central bankers and financial markets around the world. From 1979 to 1987, Volcker took aim at the double-digit price growth plaguing the U.S. economy and wringed out excess dollars from the money supply, even if such actions had short-run recessionary consequences. His determination secured the public's confidence that the Fed would protect price stability, helping to reverse inflation expectations that had built up during the 1960s and '70s.

Like Volcker, Greenspan focused on inflation. He expressed this position several times during his July 1987 Senate confirmation hearing. In a response to one senator's question



about what he thought appropriate targets for monetary policy should be, Greenspan noted that the Fed's primary goal is to "set an environment in which steady long-term maximum economic growth is feasible in our economy." In meeting that goal, the Fed needed to be very careful not to "allow the inflation genie out of the bottle, because that will clearly undercut that goal."

A week after taking office, Greenspan immediately acted against inflationary pressures. But his offensive would be put on hold after Black Monday, Oct. 19, 1987. The Dow Jones Industrial Average plummeted 508 points, or 23 percent. Greenspan's response would be a precursor to how the Fed would deal with a crisis of confidence in financial markets. It would also stir debate over how monetary policy should be conducted during a crisis and how much discretion a Fed Chairman should have in general.

Into the Valley

The macroeconomic conditions that Greenspan inherited from Volcker were less volatile than what Volcker faced when he became Fed Chairman in 1979.

Year-to-year changes in the Consumer Price Index had reached a high of 11.3 percent after wildly fluctuating during the 1970s, while Fed credibility at keeping inflation stable had reached a low. Over the next few years, Volcker worked to reduce the amount of money and credit available and rebuild confidence in the Fed's inflation-fighting resolve, which eventually reduced people's expectations of future price increases.

By 1987, the annual rate of inflation had fallen to 3.6 percent. It was up to Greenspan to maintain the Fed's restored credibility and use it to manage inflation expectations.

President Ronald Reagan, right, watches as Vice President George Bush, left, swears in Alan Greenspan as the new Chairman of the Federal Reserve Board during a ceremony at the White House on Aug. 11, 1987.

It wasn't going to be a cakewalk, though. Oil prices nearly doubled between 1986 and 1987, and the unemployment rate was falling. Neither factor alone would have automatically pushed up average price levels, since competitive pressures often prevent companies from passing along higher input costs, and there was only mixed evidence of resurging inflation at the time. Still, bond prices dropped and long-term interest rates on mortgages and other loans soared during the first half of 1987.

"There was some concern at the time that the economy was overheated, and some fear that inflation [was] drifting back up and the progress that Volcker had made in getting it down would prove to be temporary," recalls Benjamin Friedman, a Harvard University economist who has studied monetary and fiscal policy.

Meanwhile, fiscal policy wasn't doing much to assuage inflation fears. Tax cuts and increased government spending produced large federal budget deficits.

While Greenspan was widely considered to be the best choice, it was a tough job to replace "Tall Paul." Greenspan was an unknown quantity as a monetary policymaker in the eyes of central bankers and financial market participants overseas. While appointees to the Board of Governors were usually macroeconomists from the banking and securities industries, his understanding of the economy came from his work as a corporate consultant and a director on the boards of manufacturers like Alcoa and General Foods.

"He was a crackerjack domestic nonfinancial economist, intimately familiar with the data stream on the present and future prospects of the industrial sector in America. But [being Fed Chairman] was a financial job, with both national and international dimensions, and he would have some work to do to come up to speed," wrote David McClain in his 1988 book *Apocalypse on Wall Street*. McClain served as senior staff economist for the Council of Economic Advisers during the Carter administration.

While it honed Greenspan's ability to reach a consensus among people of differing viewpoints, his political experience counted against him as well. After serving as Richard Nixon's economic policy adviser during the 1968 presidential campaign, Greenspan advised Gerald Ford as chairman of the president's Council of Economic Advisers from 1974 to 1977. Later, he joined President Reagan's Economic Policy Advisory Board in 1981 and co-chaired his bipartisan commission on Social Security reform from 1981 to 1983.

Given these Republican ties, plus the fact that six out of the seven members of the Board of Governors would

By 1987, the annual rate of inflation had fallen to 3.6 percent. It was up to Greenspan to maintain the Fed's restored credibility and use it to manage inflation expectations.

be Reagan appointees, some people labeled Greenspan a political partisan who wouldn't have the gumption to tighten monetary policy if necessary. "Investors feared that Greenspan would not be the aggressive inflation fighter that Volcker had been and that he might look the other way rather than squelch inflationary pressures if that meant slowing the economy before the November 1988 presidential election," McClain notes.

Greenspan quickly disproved this perception when he took office on Aug. 11, 1987. At his first meeting of the Federal Open Market Committee, which includes the Board of Governors, the New York Fed president, and a rotating group of four other Reserve Bank presidents, the committee agreed to lean toward tightening policy between August and its next meeting on Sept. 22 if circumstances warranted it. This gave Greenspan a window of opportunity to use his authority in between FOMC meetings to initiate small adjustments in the federal funds rate, the interest that banks charge each other to lend reserves. On Sept. 3, the rate moved up a quarter of a point to a range of 6.75 percent to 7 percent.

The next day, Greenspan persuaded his fellow members of the Board of Governors to raise the discount rate half of a point to 6 percent, the first increase since April 1984. (In response, the funds rate rose again to 7.25 percent.) Changes in the discount rate —

the interest that the Federal Reserve charges to lend reserves to banks — served as an important signal to financial markets about the Fed's policy intentions because changes in the funds rate weren't yet publicly announced.

Greenspan would soon prove his mettle in another way. A month later on Black Monday, Oct. 19, he would confront the central banker's historical problem as the provider of liquidity to the financial system facing a crisis. He would also demonstrate his willingness to loosen the Fed's grip on the money supply to mitigate threats to the financial system.

After the Fall

"A stock market crash can patently increase the credit risk involved in lending to certain borrowers," Greenspan would recall in his February 1988 congressional testimony about the Oct. 19 crash. "But there can be ... an exaggerated market reaction as well, based on little hard evidence, that builds on itself and ultimately affects borrowers whose creditworthiness has not been materially impaired by the drop in equity values. This irrational component of the demand for liquidity may reflect concerns that the crisis could affect the financial system or the economy more generally."

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Greenspan compared this irrational flight to liquidity and safety with a run on a bank that is fundamentally sound. Before the existence of deposit insurance, bankers attempted to calm jittery depositors by putting cash in their front window. "In a sense, the Federal Reserve adopted a similar strategy after Oct. 19" to counteract market uncertainty, Greenspan noted.

Greenspan was en route to Dallas to speak at the American Bankers Association's annual convention when the Dow began to plummet. Upon landing, he rushed to his hotel and held a conference call with Vice Chairman Manuel Johnson, who was in charge of crisis management, and senior Fed officials. They discussed the seriousness of the situation — the Dow's decline was nearly twice as sharp as the 12 percent drop during the infamous crash of 1929, and financial markets would likely be in panic mode the next day.

On Tuesday morning, the group reconvened and agreed to issue a onesentence statement in Greenspan's name before the markets opened: "The Federal Reserve, consistent with its responsibilities as the nation's central bank, affirmed today its readiness to serve as a source of liquidity to support the economic and financial system."

As Greenspan flew back to Washington - on a private jet sent by White House Chief of Staff Howard Baker - the Fed backed up that promise. That day and for the next two weeks, it made millions of dollars available to banks through its open market purchases. The purchases were significant and frequently made at an earlier time of the day than usual to assure markets that liquidity was available. (Later on, the Fed loaned reserves to banks through its discount window, which has historically served as the "lender of last resort.") As a result, excess reserves - funds set aside by banks above the amount required by the Fed and to clear debits to their accounts - rose 61 percent from \$967 million on Oct. 21 to \$1.6 billion on Nov. 4.

To make sure the additional liquidity in the banking system would reach the securities industry, Fed officials assured many in the banking industry that, despite the turmoil, the economy remained fundamentally sound. E. Gerald Corrigan, president of the New York Fed, spent several weeks calling Bankers Trust, Bank of New York, and other large banks to "encourage" them to lend to brokerage firms. Corrigan personally knew many of the biggest financial players because the New York Fed conducted the Federal Reserve's open market purchases.

He reminded bankers that it was their job to assess creditworthiness, not circle the wagons until the dust settled. Furthermore, it was in their interest to keep the financial system functioning. Greenspan also talked with financial market officials to calm them down.

This combination of gentle persuasion and reassurance was essential in the days following Black Monday. By midday on Tuesday, dozens of stocks that didn't attract any buyers stopped trading on the New York Stock Exchange, which was on the brink of closing itself. Meanwhile, the Chicago Board of Trade and the Chicago Mercantile Exchange halted trading in various futures contracts since there weren't enough stocks trading to set a price. Eventually, though, enough confidence and impetus to act built up to prompt someone to do something - several companies began repurchasing their stock while a number of Wall Street firms bought \$60 million in futures contracts. That helped draw other buyers back into the stock market, sending the Dow up 102 points for the day.

The Fed closely monitored market developments for several days. Greenspan set up a crisis management center in his office with Johnson and other staffers who kept in touch with Corrigan in New York, other Reserve Bank presidents around the country, and market players worldwide.

Many credit these decisive actions for restoring confidence and prevent-

ing the stock market decline from affecting the banking system. For many people, Black Monday was just a bad day on Wall Street. In contrast, stock market crashes in March 1907 and October 1929 precipitated the failure of financial institutions and led to broader economic problems.

Even as the Fed did whatever it could to prevent financial gridlock and, according to one report, contemplated more serious intervention such as directly lending to brokerage firms or guaranteeing payments between them — Greenspan didn't want to create unrealistic perceptions of the Fed's power.

"If you intervene too much, then you create expectations that you're controlling and shaping things," says Donald Kettl, a political science prothe fessor at University of Pennsylvania and author of Leadership at the Fed. "Greenspan wasn't sure that he could do that, and he wasn't sure that the Fed should do that if it could." Such views, if proved wrong, would erode the Fed's credibility and make it harder to influence market behavior in the future. It would also create a moral hazard problem, whereupon investors factor Fed intervention into their risk assessments.

In addition to addressing the fearinduced demand for liquidity, Greenspan saw the need to counter risks to the nation's economic growth. In his semiannual testimony to the House Banking Committee on Feb. 23, 1988, he noted that the sudden loss in financial wealth and subsequent erosion of business and consumer confidence threatened to reduce spending.

So Greenspan persuaded his fellow members of the FOMC to lower their target for the federal funds rate from 7.50 percent just before Oct. 19 to a range of 6.75 percent to 6.88 percent by mid-November. Greenspan reduced the rate again to 6.5 percent in between the FOMC's meetings in January and February 1988.

The Fed's accommodative monetary policy for the five months following the October 1987 crash helped keep short-term interest rates from spiking as they had done in previous financial crises. However, it also "led to higher real economic growth in 1988 and 1989 than most experts had forecast," noted William Niskanen, who served on President Reagan's Council of Economic Advisers and is now chairman of the Cato Institute, in a recent paper on the Greenspan era. This forced the Fed to take decisive steps to remove excess liquidity from the economy and "deflate this demand bubble."

The federal funds rate increased nine times between March 1988 and March 1989, moving more than three percentage points to 9.75 percent. But it took some time to have the intended effect — the annual inflation rate inched upward from 3.6 percent in 1987 to 5.4 percent in 1990 before receding to 4.2 percent a year later.

The Fed's success came at a heavy price. Tighter monetary policy, coinciding with a reluctance to lend among some banks and anxiety over Iraq's invasion of Kuwait and the United States' military intervention, contributed to a recession that lasted from July 1990 to March 1991.

There is little doubt among macroeconomists that the yearlong string of increases in the funds rate was necessary to keep inflation in check. But some would argue that such corrective action wouldn't have been required if the Fed hadn't kept monetary policy so loose for so long after the crash. Harvard's Benjamin Friedman agrees that the Fed tends to overreact to a financial crisis, but that's better than doing nothing, which is the mistake the Fed made after the 1929 crash. He offers the analogy of putting out a fire in a room. "You spray a lot of water on it [and] the next morning you've got some waterlogged furniture to deal with. ... That doesn't mean the smart thing to do would have been to stand back and watch the room burn."

Greenspan's Legacy

The Fed's response to the October 1987 crash would presage how it would cope with other threats to U.S. financial markets. A series of events added new stresses to financial markets 10 years after the crash. First, foreign investors fled currency and equity markets in East Asian countries in mid-1997. Then, Russia defaulted on its domestic debt and stopped making payments on its foreign debt in August 1998. The International Monetary Fund chose not to help the country like it helped Thailand and other countries.

Again, U.S. monetary policy focused on preventing these stresses from causing bigger problems — the Fed lowered the funds rate from 5.5 percent to 4.75 percent during the fall of 1998. "Easier money helped sustain the U.S. expansion — and prevent a global slump," wrote *Washington Post* columnist Robert Samuelson this past February in an editorial about Greenspan's legacy. But a series of six rate increases occurred in 1999 and 2000, partly to pull liquidity back out of the economy and partly to address concerns about inflation that dated back to the mid-1990s. This tightening may have helped trip the 2001 recession.

Greenspan's approach to dealing with financial crises has raised a number of important questions. How responsive should the Fed be when faced with such a crisis — and how quickly should it revert to precrisis form? Also, how much leeway should the Fed Chairman be given to "fine-tune" policy?

This last question is not only relevant to how the Fed puts out financial fires, it also gets to the heart of the Fed's day-to-day policymaking. The Fed's effectiveness depends on its ability to communicate its intentions and manage inflation expectations.

Some would say that Greenspan mastered the art of managing expectations. It first came into play during the stock market crash and would help instill sufficient confidence in the Fed's inflationfighting prowess to reduce volatility in prices and economic output during Greenspan's 18 years as Fed Chairman.

This is the legacy Greenspan has left Ben Bernanke. He and other FOMC members will take a hard look at setting an explicit inflation target. In the meantime, they will continue to use economic data and their best judgment to keep prices stable. **RF**

READINGS

Beckner, Steven K. *Back From the Brink: The Greenspan Years*. New York: Wiley, 1996.

Friedman, Benjamin M. "The Greenspan Era: Discretion, Rather than Rules." *American Economic Review*, May 2006, vol. 96, no.2, pp. 174-177.

Goodfriend, Marvin. "The Phases of U.S. Monetary Policy: 1987 to 2001." Federal Reserve Bank of Richmond *Economic Quarterly*, Fall 2002, vol. 88, no. 4, pp. 1-17.

Greenspan, Alan. "Risk and Uncertainty in Monetary Policy." *American Economic Review*, May 2004, vol. 94, no. 2, pp. 33-40.

McClain, David. *Apocalypse on Wall Street*. Homewood, Ill.: Dow Jones-Irwin, 1988.

Neely, Christopher J. "The Federal Reserve Responds to Crises: September 11th Was Not the First." Federal Reserve Bank of St. Louis *Review*, March/April 2004, vol. 86, no. 2, pp. 27-42.

Niskanen, William A. "An Unconventional Perspective on the Greenspan Record." *Cato Journal*, Spring/Summer 2006, vol. 26, no. 2, pp. 333-335.

Solomon, Steven. *The Confidence Game: How Unelected Central Bankers Are Governing the Changed Global Economy*. New York: Simon & Schuster, 1995.

JARGONALERT Tragedy of the Commons

BY CLAYTON BROGA

n *The Wealth of Nations*, Adam Smith argued that an individual acting in his self-interest will tend to benefit the common good. Guided by an "invisible hand," competition that arises out of the natural desire to improve one's lot in life will lead to efficient market outcomes. For example, a gardener tends to a businessman's yard with care and at a reasonable price, not because he is particularly concerned with the businessman's well-being but rather to make a living. The gardener receives the money, the businessman gets the service he desires, and both are better off. This transaction is merely part of the larger, interconnected network of mutually beneficial relationships that enhance a society's well-being.

But there are situations in which the individual interest runs counter to the public interest. For instance, a decision may be rational on the individual level in the short run but counterproductive for everyone over the long run. This often occurs when there is large group consumption

of exhaustible resources. Ecologist Garrett Hardin coined the conflict a "tragedy of the commons." His classic example is that of herders adding cattle to graze on a common pasture. It is entirely rational for an individual herder to add cattle to the land and thereby increase his harvest. However, if all of the herders continue this process, they will overgraze the pasture, destroy it, and all will be worse off

in the long run. A negative externality, or the unintended side effect of one person's actions harming another, results from the individual herder's behavior.

Policymakers have often tried to lessen the negative effects of such common-use problems by regulation — in particular, by setting limits on the available use of the common resource. But regulation is often very costly for both regulators and the regulated alike. Monitoring compliance can be difficult for government regulators, while complying with regulations can force firms to adopt expensive technologies and slow production. Moreover, it's unclear how well regulations actually protect the intended resource. If the regulation is badly constructed, for example, a firm could deem a punitive measure for their defection cheaper than undertaking the necessary adjustments to meet regulations.

So instead many economists favor more market-based approaches. Tops on their list is permit trading. In his 1960 paper "The Problem of Social Cost," economist Ronald Coase now of the University of Chicago argued that the negative externality can be eliminated by allowing parties to bargain privately among themselves.

Consider how permit trading may work in the case of air pollution. First, the government establishes a limit on the total amount of pollution. It then issues permits equal to a specific number of units of pollution. Those permits are bought and sold among companies. Firms that find reducing pollution relatively expensive will purchase permits from firms that find cutting back less costly. In the end, the cap on total pollution limit is met, but firms have bargained toward this solution in a way that is more efficient than traditional regulation.

In a 2003 paper published in the Oxford Review of Economic Policy, Tom Tietenberg of Colby College reviews the effectiveness of permit trading in modern-day applications. He cites permit-trading programs in the United States that have reduced pollution at relatively low costs, arguing that some have actually produced positive externalities by

> lowering the levels of other air pollutants not specifically targeted. In addition, permit trading has found its way into the international Kyoto Protocol and European Parliament pollution laws.

Tietenberg also tracks permit trading's modern history in the fishing industry, which has yielded more mixed results. The unregulated fishing industry is similar to Hardin's pasture-herder example: Fishermen tend to overharvest

the limited supply of fish, depleting the stock for the next season. As a result, select areas have instituted permit-trading programs. However, it's been found that some fishermen have discarded loads of low-valued fish, resulting in their deaths, to make way for higher-valued fish. This allows fishermen to meet their quota, but it doesn't necessarily enhance the health of the industry as a whole.

What's more, even when permit-trading systems have yielded efficiency gains, there are still concerns about whether the results are just. Usually, these critiques center on the initial allocation of permit rights, which can have significant distributional consequences. Indeed, squabbles over who gets what are often a stumbling block to a permittrading system even getting off the ground.

In any case, findings from both theory and practice have proven useful in understanding tragedy of the commons problems. While traditional regulations may prove useful in some circumstances, often it is more desirable to establish a framework in which private firms can largely resolve the problems themselves. **RF**

RESEARCH**S**POTLIGHT **Culture and Economics**

BY CLAYTON BROGA

The classical economists regarded culture as instrumental in shaping economic outcomes. At the turn of the 20th century, Max Weber expounded upon these ideas, insisting on religion's importance in developing capitalism in his famous book *The Protestant Ethic and the Spirit of Capitalism*. However, around the mid-20th century, many economists began to shy away from using culture as an explanatory variable. In part, it seemed like too nebulous of a concept — one that was hard to identify and isolate. So as statistical sophistication and technical tools advanced, culture gradually began to fade from discussion.

This same sophistication in modeling, however, has spurred a resurgence in cultural economics. In a recent paper,

Luigi Guiso, Paola Sapienza, and Luigi Zingales of the University of Rome Tor Vergata, the University of Chicago, and Northwestern University, respectively, provide an overview of recent work on culture's effect on the economy. The authors narrowly confine their definition of culture to "those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation." They

take a three-step approach: Show a direct effect of culture on beliefs and preferences, causally link those beliefs and preferences to economic outcomes, and prove this causality moves from culture to economics and not from economics to culture. Within this framework, Guiso et al. focus on three mechanisms by which culture can affect economics.

First, culture can affect *political* preferences, which, in turn, impact economic outcomes. Controlling for numerous variables, religion, and ethnic background significantly varied respondents' political preferences for income redistribution. Catholic and Protestant respondents, for example, had significantly more negative attitudes toward redistribution than those with no religion. Also, ancestors' country of origin mattered in preferences for redistribution. African-Americans and Americans with known African ancestors are 20 percent more in favor of redistribution than the average American.

The authors show that a significant positive relationship exists between respondents' preferences for income redistribution (revealed in a survey) and their states' efforts of redistributing income (as measured by taking the ratio of the share of state government revenues coming from progressive income taxes and the share coming from regressive sale taxes along with other indirect taxes). The positive causal relationship is actually strengthened after testing for reverse causality, indicating that the respondents' culture is impacting state redistributive policies and not vice versa.

As a second mechanism, culture can affect *economic* preferences, which, in turn, affect economic outcomes. The authors conclude that religion and ethnic origin influence saving decision preferences. Catholics and Protestants are significantly more likely than nonreligious people to view teaching thriftiness to their children as an important value.

Furthermore, the thriftiness measure affects national saving rates. The authors argue that "a 10 percent increase in the share of people who think thriftiness is a value that should

"Does Culture Affect Economic Outcomes?" By Luigi Guiso, Paola Sapienza, and Luigi Zingales. *Journal of Economic Perspectives*, Spring 2006, vol. 20, no. 2, pp. 23-48. be taught to children is linked to a 1.3 percentage point increase in the national saving rate." They acknowledge, however, that disproving reverse causality in this case is based on a "tentative" estimate; in other words, they were unable to fully conclude that culture-inspired preferences are leading to national saving rate outcomes and not the other way around.

The third mechanism provided

by Guiso et al. is the effect of culture on *prior beliefs*, which, in turn, affect economic outcomes. For instance, the authors find that culture, as defined by religion and ethnicity, affects beliefs about trust. Being raised religiously increases the level of trust, as measured by survey response, by 2 percent and regularly attending religious services by another 20 percent. Also, there is a strong positive correlation between the average trust level in an immigrant's country of origin and trust in his new environment that holds over generations. And trust has a positive and statistically significant impact on the probability of becoming an entrepreneur.

Experiments able to take theories of culture's influence and subject them to rigid statistical analysis are valuable in deducing culture's economic impact. It is essential for economists, nonetheless, not to assume a significant causality between all forms of culture and economic activities. Rather, they should mimic the Guiso et al. methodology: Test the impact of narrowly defined cultural dimensions on specific preferences and beliefs, then test the impact of those preferences and beliefs on particular economic outcomes. If done properly, as Guiso et al. contend, "Importing cultural elements will make economic discourse richer, better able to capture the nuances of the real world, and ultimately more useful." **RF**

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POLICY UPDATE South Carolina's Shifting Tax Burden

BY VANESSA SUMO

Source of the end of 2007, and sales taxes will increase beginning June of that year.

If every South Carolinian were alike, then this new tax plan would affect everyone in the same way. They would simply pay for school funding out of one pocket

instead of the other. Naturally, this is not the case. One taxpayer may own a sprawling mansion and the other a modest bungalow, while a third may rent. One may take home \$300,000 a year and the other \$30,000. These differences matter in how people will be affected by the changing tax environment.

Ellen Saltzman, an economist at Clemson University, has looked into how reducing property taxes

while increasing sales taxes will change residents' tax burdens. She finds that under the new tax plan, homeowners will stand to gain more from the tax swap the higher their income and the more valuable their home. For instance, since incomes tend to be proportional to home values, then a resident of, say, the Beaufort school district who belongs to the top I percent of the income distribution will see his tax burden fall by 0.66 percent of his income, more than double the savings that poorer residents in the lowest 20 percent bracket will get. This is because wealthier people with expensive homes will get the largest property tax cuts in total dollar terms, and at the same time will likely spend a smaller share of their income on taxed goods than on nontaxed services.

Moreover, those who rent their home will be doubly squeezed. Renters, who indirectly pay property taxes through their rent, will see their tax burden increase since rental property is not eligible for tax relief — but they will have to pay more in sales taxes anyway. Saltzman finds that a renter at the lower end of the income spectrum will have a higher tax burden than one at the top end since this group will end up paying more in sales taxes as a share of their income. Overall, the new tax plan thus tends to be regressive since it skews the income distribution in favor of the bigger earners.

Besides equity considerations, there is also the concern that the swap would distort taxpayers' spending behavior. A higher sales tax would hurt local businesses if it encourages residents either to shop less or buy items out of state, something that has been made increasingly easy because of the Internet. Local revenues could be hit hard as well. In a recent speech, Holley Ulbrich, a retired professor and Saltzman's colleague at Clemson University, noted, "Anything that hurts retailers hurts local governments, especially cities, where the commercial property of stores and restaurants is the economic lifeblood that donates regularly in the form of business licenses, local sales tax,

Homeowners will see the exemption in their tax bills by the end of 2007, and sales taxes will increase beginning June of that year. hospitality tax, and property tax." In addition, firms may choose to locate elsewhere if a significant part of their business operations is subject to the sales tax.

House prices could also be affected. Buying a home is more attractive because the property tax relief reduces the cost of housing. But home buyers will always weigh their stream of future costs against their future benefits, the quality of schools being one of them.

Thus, property tax relief will likely exert an upward pressure on house prices provided that schools maintain the same relative quality between school districts in the state under the new tax plan.

There's a question, though, of whether adequate school funding can be raised under the new tax plan. Revenue proceeds from the sales tax increase will be distributed to schools in fiscal year 2007-2008, and will be based on the amount of funds each school received in the previous year. This amount will be adjusted each year by inflation and the state's population growth. Some school representatives are concerned that this adjustment may not be enough to fund the schools' growing needs because the cost of education could rise faster than inflation and population growth.

In all, Ulbrich thinks that the new tax plan doesn't pass "the reasonable test of what is a good change in tax policy." The property tax relief was mostly intended for those whose homes have rapidly increased in value but whose incomes are fixed, particularly South Carolina's older folks. Targeted relief that is based on need and income arguably would have provided a more equitable and less costly solution. **RF**

— AROUND THE FED Credible Commitment

BY DOUG CAMPBELL

"Making the Systematic Part of Monetary Policy Transparent." Robert L. Hetzel, Federal Reserve Bank of Richmond *Economic Quarterly*, Summer 2006, vol. 92, no. 3, pp. 255-290.

I t was only 12 years ago when the Federal Open Market Committee first began announcing whether it had changed the federal funds rate target. More recently, the committee started inserting thoughts into its postmeeting statements about the likely near-term behavior of rates.

In "Making the Systematic Part of Monetary Policy Transparent," Robert Hetzel, a Richmond Fed economist and senior policy adviser, makes his case for the next logical step in the Fed's communication evolution — an explicit policy rule.

To Hetzel, the "go-stop" monetary policy of the pre-Paul Volcker era was a failure because the attempted discretionary manipulation of real variables destroyed the expectation of price stability. In contrast, the Volcker-Greenspan era correctly turned its attention to managing inflation expectations. "By allowing the price system to work rather than superseding it, the FOMC produced more, not less, economic stability," Hetzel writes.

But there remains room for improvement. The Fed's ability to signal the future behavior of the funds rate in its post-FOMC statements, Hetzel says, is limited "by the difficulty of forecasting economic activity." One way to overcome this limitation is by adopting a transparent policy rule, which would allow markets to understand how the FOMC responds to new information. The Fed would respond to strength and weakness in the economy in a way that stabilized expected inflation at the chosen target for inflation.

"At any individual meeting, the FOMC need not respond in a quantitatively strong way to the emergence of a gap between actual and targeted inflation," Hetzel writes. What's important "is that financial markets believe that the FOMC will raise the funds rate in a persistent way as long as a positive miss of the inflation gap exists, and conversely for a negative gap."

By clearly communicating its objectives and its means of achieving them, the Fed will, by extension, enhance price stability. When firms see the Fed focusing on making sure that future prices will be contained, they won't overreact in the short term with immediate hikes in their own prices. Hetzel says: "With a credible inflation-targeting rule, real shocks can introduce fluctuations in the price level but not in trend inflation." "Urban Density and the Rate of Invention." Gerald Carlino, Satyajit Chatterjee, and Robert Hunt, Federal Reserve Bank of Philadelphia Working Paper No. 06-14, August 2006.

Urban living has its drawbacks — traffic congestion, high rents, and long waits for a restaurant table, to name a few. But cities have their advantages, too, for both their residents and the economy. For instance, they make knowledge spillover possible. That is, people working in close proximity to each other create knowledge that extends beyond their firms to the entire community.

In a recently updated paper, economists at the Philadelphia Fed examine the effects of employment density on the invention rate. They find a strong relationship between patent intensity — the average rate of patenting per capita in a given metro area — and employment density. "All else equal, patent intensity is about 20 percent higher in a metropolitan area with employment density that is twice that of another metropolitan area," the authors conclude. Next up, the authors are investigating the contribution that a city's characteristics make to a firm's productivity and research efforts.

"The Looming Challenge of the Alternative Minimum Tax." Alan D. Viard, Federal Reserve Bank of Dallas *Economic Letter*, August 2006, vol. 1, no. 8.

The Alternative Minimum Tax (AMT) was first adopted in 1969 with the intent of keeping wealthy people from avoiding the payment of income taxes. The AMT has lower tax rates than the regular income tax, but it doesn't allow as many deductions and credits, so taxable incomes are higher. It kicks in when it generates a higher tax bill than the regular income tax. Historically, it has affected mostly richer households. But come 2007, the AMT may have the unintended consequence of raising tax liability for 22 million Americans, most of them squarely in the middle class.

In a new article, Dallas Fed economist Alan Viard explains how inflation coupled with recent tax cuts have expanded the reach of the AMT. To prevent too many constituents from having to pay the (usually higher than the regular tax system) AMT, lawmakers have repeatedly extended relief for short periods, even as they have failed to adopt long-term reforms. Viard discusses several remedies, including indexing the AMT to inflation or doing away with it altogether.

But in the end, Viard acknowledges that these solutions may be too politically painful for adoption because they entail revenue losses. "Surely, though, the time has come to fix a tax system that everyone agrees is broken," he concludes. **RF**

Short Takes

CHARLESTON'S COOL

U.S. Mayors Go Green

C harleston, S.C., is no stranger to energy savings, cutting some half a million dollars a year since 2001 off its energy bills. "Even though a lot of our facilities are old in Charleston, we try to make them as energy efficient as possible," says Stephen Bedard, chairman of the city's capital projects committee.

As early as 1998, the city was investigating energy conservation. Through a competitive bidding process, manufacturing firm Johnson Controls won a 15-year contract in 2000 to help Charleston go green.

In 2005, the U.S. Conference of Mayors resolved to get mayors to meet the United States' carbon emissions cutback — the amount of carbon dioxide that would have been reduced had the United States ratified the international Kyoto Protocol, which now has about 141 countries on board. So far, 307 U.S. mayors have signed the plan.

Charleston aims to reduce carbon emissions by 57,000 tons over the 15 years. "In the first four years, we cut greenhouse gas emissions by a little over 30 million pounds," Bedard says.

The immediate need was a new heating and air conditioning system in the city's Gailliard Auditorium, the main venue for entertainment, including events during the city's world-famous Spoleto Festival. The city arranged a lease purchase for 3.9 million with Johnson Controls, which guaranteed savings over 180 months, or 15 years. The arrangement allowed the city to get the work done without borrowing — the upfront money came from Johnson Controls. The energy audit guarantees the city will save and if it doesn't, it gets a check for the difference. That actually happened, and the Milwaukee, Wisc., firm wrote a check for 10,000, the amount the city was off its savings target.

In addition to energy-efficient heating and air conditioning systems, Charleston retrofitted the city's largest facilities with green lighting and low-flow water technology. Those were replaced as quickly as possible because of substantial savings involved. Controls that regulate temperatures automatically were also installed in city facilities.

Charleston is now looking at replacing fleet cars with energy savers. Totally green buildings may be next. "We're also talking about trying to get a couple of high profile buildings that we could bring out of the ground from scratch," Bedard says.

To date, energy savings total some \$2.5 million, Bedard says. "The payoff on those things are two and three years," he says. "We're long past what it cost us in addition to the fact that it's the right thing to do, given what we're facing in this country."



Charlottesville, Va., another "cool city," shows how green spaces capture runoff in its demonstration rain garden. The city's also exploring alternative fuel vehicles and green buildings, among other environmental projects.

Mayor David Brown of Charlottesville, Va., signed on last spring. He says the city is growing so fast that they're losing a lot of trees, noteworthy carbon eaters. "There are lots more cars, more buildings, and a lot more people consuming energy. The city's got lots of carbon-reduction strategies, including tree planting, auditing and altering the city's energy use, and urging citizens to cut back energy use and buy energy-efficient appliances."

Today's rising energy costs are making green building more affordable, Brown says. "Lots of these things have a shorter payback period because energy costs so much."

— Betty Joyce Nash

Fifth District Cool Cities

Maryland Annapolis Baltimore Chevy Chase Rockville Sykesville

 North
 South

 Carolina
 Carolina

 Asheville
 Charleston

 Carrboro
 Greenville

 Chapel Hill
 Sumter

 Durham
 Sumter

Virginia Alexandria Charlottesville Richmond Virginia Beach Williamsburg

Washington, D.C.

SOURCE: Sierra Club

WORKERS UNITE?

The Tides of Economic Change Have Eroded the Power of Organized Labor

H andling animals at the Maryland Zoo in Baltimore would appear to have little in common with handling molten steel. For the past three years, the local United Steelworkers in Baltimore welcomed 99 zoo workers as part of an effort to diversify its union membership. The relationship also helped workers attain wage increases and maintain their benefits, according to zookeeper and union leader Tammy Chaney.

But in August, a majority of workers were apparently satisfied enough with their situation to vote for leaving the union. Jim Strong, who directs the United Steelworkers' activities in Maryland, attributes the decision to employee turnover and the union's failure to win higher seasonal pay. Zoo management says it has forged a better relationship with workers. In the larger scheme of things, this decision typifies the decline of organized labor in the United States.

Using data from the Bureau of Labor Statistics, economists Barry Hirsch at Trinity University, David Macpherson at Florida State University, and Wayne Vroman at the Urban Institute found that union representation among nonagricultural workers has dropped significantly since 1964. The percentage of these workers who belong to a union shrank from 29 percent in 1964 to under 13 percent in 2005.

The Fifth District followed a similar pattern (see table). The declines in unionization were steepest in the region's right-to-work states — North Carolina, South Carolina, and Virginia — where it is illegal to make union membership a mandatory condition of employment.

However, West Virginia, a state with a long history of worker organization in coal mines, wasn't far behind. The Mountain State's share of nonagricultural workers belonging to unions dropped by almost two-thirds from 36.5 percent in 1964 to 14.4 percent in 2005. Maryland's share has also declined despite the state's past with steelworker unionization.

So, why is a smaller percentage of the work force organized? One reason could be that a union card isn't as valuable as it used to be.

Although various studies have shown that union workers earn more than nonunion workers, that wage premium has shrunk somewhat in recent years, according to Hirsch and Macpherson. Companies in competitive industries have faced greater pressure to reduce their labor costs, so they have fought unions harder. In turn, unions have agreed to wage cuts and layoffs in exchange for concessions on nonwage benefits and to ward off future downsizing or outsourcing of the work force.

Also, the relationship between management and employees runs in cycles — during periods of social upheaval, discontent among workers gives them a common cause to unite against and union membership surges. For example, unions pushed for and won shorter hours, safer workplaces, and higher wages around the turn of the 20th century when many blue-collar workers felt that they were not receiving a fair return on their labor. Labor conditions have improved over time and the share of the work force employed in the manufacturing sector, where organized labor's presence has been most prominent, has fallen.

Share of Nonagricultural Wage and Salary Employees Who Are Union Members



"Estimates of Union Density by State." *Monthly Labor Review*, July 2001, vol. 124, no. 7, pp. 51-55. (updated by authors in 2006)

Gerald Friedman, an economist at the University of Massachusetts at Amherst, says that the decline in "bad" factory jobs contributes to the perception that unions are no longer needed. However, he believes there are still incentives for workers to unionize. Certain white-collar professions like call center representatives sometimes face difficult working conditions, and all workers need an independent third party to arbitrate grievances. "Unions give workers a voice in what's going on in the workplace," Freidman says.

Not surprisingly, union officials also believe their organizations remain relevant. MaryBe McMillan, secretary-treasurer of the North Carolina AFL-CIO, says the benefits of unionization extend beyond the negotiating table. Unions help workers to contest improper disciplinary actions against them and to find the social services they need, she says.

More important, McMillan believes, people need the collective bargaining power of unions. "A lot of workers feel they are being squeezed by companies [and] can't give up anymore. They need an advocate."

Whether workers themselves believe this, however, is what really matters. And many, like those at the Maryland Zoo, apparently think that they can do just as well negotiating on their own. - CHARLES GERENA

CASHING IN ONLINE

Online-Only Banks Show the Way to Higher Yields

I nterest-bearing savings accounts have typically been thought of as a safe place to put one's money, but in exchange for that safety one could expect only negligible returns. Recently, however, some online-only banks have been offering yields on savings accounts that are sometimes 10 times higher than those of traditional banks. ING Direct, Emigrant Direct, and Amboy Direct, for instance, currently offer 4.4 percent to 5.25 percent on their basic online savings products, while brick-andmortar giant Bank of America pays only 0.5 percent on its regular savings account.

Online-only banks are an evolving breed, but could be defined as banks that primarily provide services through the Internet and have limited physical presence. That's one of the reasons why they're able to offer higher yields. Online-only banks don't incur as much fixed and overhead costs as physical bank branches do, allowing them to pass these savings on to their customers. Moreover, the online banking business is mostly focused on savings accounts that, unlike checking accounts, are a low-maintenance product. Online-only banks "have chosen to sell a product that doesn't have much customer service or costs associated with it," says Jim Bruene, founder and editor of Online Financial Innovations, a research and analysis firm that specializes in the online banking industry.

In addition, online-only banks can pay a generous return because they take a lower margin on every dollar deposited. What they lose in tighter margins, they aim to gain in the size of the accounts they receive. The balances on online accounts are typically large because they cater to people who have a lot of money in cash and are actively seeking the best rate of return.

Another reason why online-only banks offer such attractive yields is to get the customers' attention, especially since they don't have the branches that traditional banks do to market their brand. "You can buy \$100 million worth of ads and put your name on it, or you can have the highest rate in the market and people will find you," say Bruene. It could be much less expensive to have the best rate, and this virtually guarantees that a bank will land at the top of many financial analysts' and magazines' lists of "where to put your money."

So are brick-and-mortar banks rushing to match the online yields? Some are more interested than others. "The high rate is the equivalent of a discount in the retail world. You're discounting the savings account by offering the higher rate, and some want to play in the discount game

Savings Account Rates		
	Account Type	Annual Percentage Yield (%)
Emigrant Direct	online savings	5.05
HSBC Direct	online savings	5.05
Citibank Direct	online savings	5.00
ING Direct	online savings	4.40
Bank of America	regular savings	0.50
Wachovia	premium savings	0.35
BB&T	regular savings	0.25

NOTES: Selected bank rates as of October 5, 2006. For Bank of America, Wachovia, and BB&T, bank rates apply for Virginia. SOURCES: Bankrate.com and bank Web sites and some don't. It's a strategic decision," says Bruene. HSBC Bank is an example of a large traditional bank that has introduced an online savings product that pays 5.05 percent while offering only 0.25 percent on its regular savings account. (One can easily spot the difference since it displays both rates on the same page on its Web site.) Because these accounts have very different markets, HSBC can price these products differently. The traditional savings account is typically for people who have smaller balances, for whom the yield is not too important.

Other banks may be less inclined to follow in the footsteps of online-only banks, especially those that have an extensive branch network. Offering a 5 percent product apart from the 0.5 percent one could cost banks a lot of money if their depositors suddenly jump on the higher rates. The larger the depositor base, the higher the risk of "cannibalizing" these accounts. Thus, offering online savings products may not work well for Bank of America but could for HSBC and Citibank, which are traditional banks that don't have the physical presence around the country that other banks do.

But many customers could still prefer the certainty and convenience of banking with a brick-and-mortar. They may decide, for instance, that the higher interest rate is not enough to offset certain rules and restrictions that online-only banks have on withdrawals and deposits. "There are all kinds of ... embedded penalties on how much you can withdraw, and fees, and so on," says Elias Awad, a banking professor at the University of Virginia.

Awad advises customers to "understand what the online-only bank offers and try to match it with [their] own immediate and long-term needs." He feels that many small businesses, for instance, should avoid using these accounts because it could be difficult to quickly gain access to funds in case of emergencies.

At the moment, Bruene estimates that about 5 percent of households hold online savings accounts and believes that, while the market will expand over time, its natural customer base is limited to the relatively wealthy. "[Online savings accounts] will continue to be a factor with customers who have fairly large balances in liquid deposits, so I think these will continue to grow," says Bruene. Awad likewise thinks that customers who have large sums of money may benefit because of the savings, as long as they can afford to commit their money for a few years. — VANESSA SUMO

TRANSIT-ORIENTED DEVELOPMENT

Light-Rail Line Will Be Charlotte's First Test of its Land-Use/Transit Plan

C harlotte officials came up with an ambitious plan in the late 1990s — build a transit system to serve populations that largely didn't exist yet. The plan was (and is) to use land-use policies to create developments around future transit hubs. Such "transit-oriented development" would, it was hoped, create the population density to make rail and bus lines competitive with driving while combating sprawl.

The first of the five proposed transit lines, the 9.6-mile South Corridor, is under construction. By next fall, light-rail trains should be running between Uptown, the city's central business district, and neighborhoods near the intersection of Interstate 77 and Interstate 485 in south Charlotte. There is optimism that people will want to live closer to the city and within a few blocks of a train station. The big question is whether enough of the demand for urban living can be steered to the South Corridor to make light rail economically feasible.

"The economic efficiency [of mass transit] critically depends on its ability to attract people, and that reflects the density of the population," notes John Silvia, Wachovia's chief economist.

A set of transit-oriented development principles and policy guidelines drafted in 2002 outline the mixed-use, higher-intensity development desired along the South Corridor and Charlotte's other transit lines. The minimum densities for housing would generally be 20 units per acre within a quarter-mile radius of each station and 15 to 20 units per acre within half a mile. Detailed land-use and design plans are being drawn up for each station, after which property will be rezoned through normal channels.

In the meantime, dozens of inquiries have come from developers who want to apply for transit-oriented development rezoning for their parcels along the South Corridor, says Tracy Finch, transit station area development coordinator for the city's Economic Development Office. So far, more than \$400 million in private investment has been announced for the corridor, which is dominated by older industrial properties near the existing railroad tracks and has some single-family housing.

Most of the new investment has centered on the five stations in or near Charlotte's South End, a community just below Uptown that has been experiencing steady redevelopment. For example, real estate developer HHHunt plans to build a four-story, 320-unit apartment complex and a parking garage on five acres near the future New Bern station. Two luxury condominium projects have been completed between two other stations.

Farther down the South Corridor, the city purchased about eight acres surrounding the Scaleybark Road station and solicited proposals from developers. Three plans are under consideration.

"Our reason for doing that was to try to incorporate some affordable housing into the development, to remove blight and nontransit supported uses, and to serve as a development catalyst for the station area," Finch explains. There was some interest in the property, but she thinks it would have taken longer for something to happen. "We were willing to go out there and take the risk."



Charlotte's light-rail system is now expected to handle more than 9,000 passenger trips per day in its first year, lower than a previous projection of just under 13,000 trips.

In general, development will likely take longer to foster around the stations in the bottom half of the South Corridor because they are the farthest away from existing growth patterns and are less dense.

Assuming residential development occurs as planned along the South Corridor, the light-rail line will still need to connect these passengers to a common destination. The line terminates in Uptown, where an estimated 65,000 people work and Wachovia has proposed building an \$800 million complex with a 46-story office tower, condos, and space for cultural institutions.

However, Ronald Tober, head of the Charlotte Area Transit System (CATS), has been telling local business leaders that 100,000 positions need to be created in Uptown over the next 20 years to support a hub-and-spoke transit system with the business district at the center. Meeting this goal would require a significant acceleration of job growth, which could be difficult to achieve given the boom in high-rise residential construction in the area and the availability of cheaper office space in other parts of the metro region.

Of course, there is nothing to stop future residents along the South Corridor from hopping on Interstate 77, which parallels the light-rail line. Tony Crumbley, vice president of research at the Charlotte Chamber of Commerce, says that's why it's essential to create a system that is clean, safe, and convenient. "I'm not going to walk half a mile and stand there for an hour" for the train, he says.

Light-rail trains will be operating seven days a week, every 7.5 minutes during rush hour and every 15 minutes at other times. Total travel time from end to end is expected to be less than 24 minutes, which is about the same as taking I-77 on a busy day.

Still, past experience indicates that it's hard to get people out of their cars. Although CATS has expanded the hours of its bus service significantly since 1999, it accounts for just 10 percent of travel to Uptown and less than 2 percent of total commutes in the metro region. — CHARLES GERENA

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CHARGED BY THE MARKET

Electricity deregulation is finally starting to stir up retail competition in Maryland

BY VANESSA SUMO

n Maryland, residential customers of the state's leading power supplier were recently awakened from their rate-capped slumber of six years. Beginning in July, the average household was told it could expect to pay 72 percent, or \$743 a year, more for electricity supplied by Baltimore Gas & Electric (BGE). This wasn't how deregulation of the Maryland electricity industry was supposed to work out. Residential customers had been assured that



One of Maryland's main electricity distribution companies is Baltimore Gas & Electric (headquarters shown here), which plays an important role in advancing retail competition by connecting competitive electricity providers to homes and businesses in its area.

retail prices would go down as a result of competition - but prices instead leapt upward.

BGE's industrial customers likewise experienced a rate increase, of up to 39 percent for small- and mediumsized businesses. BGE no longer sells electricity to large commercial customers because alternative suppliers have taken over that market. Rate caps for all industrial customers expired two years ago, and since then they have been paying the market rates. The electricity industry is the last major energy sector to move to competition. For a long time, electricity's traditional monopoly structure was thought to be the most efficient and inexpensive way to provide power. The long-held belief was that utilities which owned massive generating plants, combined with their transmission and distribution systems, possessed the scale needed to make average production costs much lower than smaller power plants could achieve. Over time, however, changes in the technology of power production and transmission, dissatisfaction over rising electricity prices due to large utility construction and fuel costs, as well as new laws that facilitated the entry of smaller power producers prompted the old structure to shift to competition.

Economists and policymakers recognized that unshackling the electricity generation business from the transmission and distribution compo-

nents of a vertically integrated monopoly could potentially give way to many suppliers of generation capacity and many retailers of electricity services. A competitive wholesale market for electricity would give generators the incentive to control costs, to innovate, and to shift the risks of expensive investments to stockholders and away from consumers. Retail competition would support this arrangement by giving consumers the choice to buy from the supplier that offered the best price and quality. The hope is that in the long run, this new structure, along with reforms in the regulated distribution and transmission aspects of the business, would not only lead to lower costs and lower prices but also enhance the reliability of the whole system.

However, until recently in Maryland - six years after retail competition was opened to residential customers - consumer choice was very limited. This may have more to do with how the state implemented retail competition than with problems with deregulation itself. Maryland's experience illustrates the difficulties that most states, including some of its Fifth District neighbors, have had with moving along the path of deregulation. But things are starting to change. Maryland's current transition to market-based prices, however reluctant, seems to have finally ushered in the start of true competition.

Switching Blues

With retail competition, a customer's electricity bill is unbundled into a regulated and a competitive component. The regulated component contains the "delivery" charges for the transmission of electricity from the generation source to the local utility and its distribution through poles and wires to every home. The competitive component is the essential part of retail competition. Households are free to choose whether to buy their electricity from their incumbent local utility or from an alternative electricity provider. This gives them the opportunity to shop around for a supplier that can give them the most savings and satisfaction.

The incumbent utility is typically required to provide a standard default service until the retail market fully develops. The price that the utility charges for this default service is the "price-to-compare." While the precise rules vary across states, the price-tocompare is usually computed by taking the utility's regulated cost of generating electricity and removing the "stranded" costs, or costs incurred by the utility while it was still a monopoly but that it can no longer recover if customers switch to an alternative provider. This residual, plus a transmission charge that all suppliers have to pay, is the price-to-compare. When shopping for an electricity supplier, customers can take this price and compare it with what alternative providers have to offer. Similarly, the price-to-compare is the alternative providers' "price-to-beat," or what they can use to determine if there is sufficient headroom for them to compete.

New entrants have access to the transmission system owned by the incumbent utilities, allowing them to supply electricity in a particular area. The incumbents charge the alternative suppliers a fee for this service, which in turn is collected from the customer. The Federal Energy Commission, which regulates the interstate transmission of electricity, sets the price that the incumbents can charge for using their lines.

An important yardstick of whether competition is proceeding smoothly is whether there is a good number of alternative providers active in the market and whether a significant proportion of customers are buying electricity from these new entrants. Customers are likely to switch if the price offered by alternatives is lower than the incumbent utility's price-tocompare. But in many states that adopted retail competition, the potential savings from moving to an alternative was either too low or did not exist at all.

The states' electricity restructuring laws did not make matters easy for new entrants. Through separate deals made with incumbent utilities, the price of residential electricity supply in Maryland was cut by 3 percent to 7.5 percent, depending on the service area, and frozen at that rate for four to eight years.

Maryland's Fifth District neighbors embarked on similar programs. When the District of Columbia opened to retail competition in January 2001, electricity prices of residential customers served by the Potomac Electric Power Company (PEPCO) were cut by 7 percent, and generation and transmission rates were capped for four years until February 2005 and until February 2007 for lowincome households. Virginia, which introduced customer choice in January 2002, capped the incumbents' electricity prices until the end of 2010 (extended from 2007), but allowed some fuel and base rate adjustments.

The idea behind the rate reductions and price caps was to protect consumers, especially households, from high unregulated rates during a transition period. What is hard to understand, however, is how the market would be expected to flourish if alternative service providers were not given sufficient headroom to compete. In many states, "the default service price had been set at a level that didn't track market prices so there was no reason to switch," says Paul Joskow, an economist at the Massachusetts Institute of Technology. Soaring prices of fuels burned to make electricity, particularly natural gas, have exacerbated this gap, moving wholesale electricity prices further away from the incumbent utilities' standard rates. The incumbents did not incur significant losses during the rate freeze because they were able to buy long-term contracts that fixed the wholesale price of electricity over several years until the caps expired.

While Maryland is already in the process of unfreezing rates, Joskow says that the incumbents' price-tocompare was initially set below the wholesale price, giving alternative providers no incentive to enter the market. For example, BGE's price-tocompare prior to moving to market rates in July 2006 was about 4.7 cents per kilowatt hour (including a small transmission charge), while the forward wholesale price for power delivered at the region's wholesale market and grid operator was about 7.8 cents. Clearly, alternative providers will find it difficult to buy power at 7.8 cents and sell it at 4.7 cents.

The switching numbers show the consequences. As of June 2006, only 1.4 percent of all residential customers in Maryland had signed up with an alternative electricity provider, and virtually all were in PEPCO's service area where rate caps were lifted two years earlier. Elsewhere in the Fifth District, about 1.5 percent of D.C. households had switched to an alternative, down from the 6 percent share alternatives enjoyed when rates were uncapped in February 2005. Only one alternative provider serves residential customers in Virginia, and its share is virtually zero.

These experiences compare unfavorably to Texas, where 15 percent of residential customers have already switched to an alternative provider after only three years of retail competition. One big difference is that Texas, which adopted a program similar to the United Kingdom's successful model, set the price-tocompare at or above wholesale market levels, leaving additional headroom for competitive suppliers to enter the market.

Despite these problems in the residential market, retail competition has proved a success for commercial and industrial customers. About 16.4 percent of Maryland's businesses, whose rate caps expired at the end 2004, have migrated to an alternative provider as of June 2006. This represents about 63 percent of their total electricity load. Size certainly matters. Big commercial and industrial

customers tend to be the first ones to shop since a bigger electricity bill means that they will be keener to save. And since buying a trainload rather than a truckload of a commodity can often fetch a lower price, alternative electricity providers are able to offer better discounts to bigger customers because it's more cost-effective to handle a larger load.

Following the Wholesale Market

When states across the country were debating whether to move to a competitive model, the main selling point was the promise of lower prices. But assessing whether retail competition has led to lower prices today is trickier than it seems. One reason is that rate freezes and reductions

Retail Electricity Competition in Maryland

There are six alternative electricity suppliers that are actively seeking new residential customers. The area served by Baltimore Gas & Electric, which uncapped rates in July 2006, has the most number of market players. Many of those companies are also looking to do business in other parts of the state.

Baltimore Gas & Electric Company

- Commerce Energy
- Dominion Retail
- Maryland Energy Consortium
- Ohms Energy Company
- Pepco Energy Services
- Washington Gas Energy Services

Potomac Electric Power Company

- Ohms Energy Company
- Pepco Energy Services
- Washington Gas Energy Services

Delmarva Power

Ohms Energy Company

Allegheny Power

• There are no alternative providers.

Southern Maryland Electric CooperativeThere are no alternative providers.

Choptank Electric Cooperative

• There are no alternative providers.



reached through separate deals with utilities have blurred the picture, since prices indeed fell but not because of retail competition itself.

Another way to compare competitive and regulated prices would be to look at the change in prices in those states that have opened to retail competition and subsequently uncapped rates, and those that have not introduced competition. Using this measure, economist Kenneth Rose of the Institute of Public Utilities at Michigan State University finds that retail prices have risen by 15.8 percent over the period 2002 to 2005 in states which have moved to market-based rates. This is faster than the 12.3 percent increase in areas that are still regulated.

Rose attributes higher prices to the workings of wholesale electricity markets rather than to retail competition. "When Maryland [holds] their auction, the price they are going to get is largely a function of the conditions that are out there in the wholesale market, and if the wholesale market is showing any kind of problem that might lead to higher prices then that's going to be reflected in the retail," he says.

Retail suppliers take their cue from the price that clears the demand and supply for electricity in the wholesale market. The resulting price will at times be very high because under very tight conditions, the wholesale price is set by the generating plant that is called on to supply the last unit of electricity demanded. If that plant uses natural gas (as it does today), then the price retailers will pay for electricity depends solely on the price of natural gas, even if the electricity comes from other cheaper generation sources.

Under a regulated regime, the monopolist's electricity price depends on the utility's average cost of producing electricity. This is determined mainly by the variable cost of fuel expenses and the fixed cost of building plants that generate the electricity. In this case, an increase in natural gas prices affects electricity prices only in proportion to the share of natural gas in producing that electricity. Thus, in contrast to a deregulated system, consumers will experience smaller fluctuations in electricity prices.

As far as price-conscious consumers are concerned, this might sound like an argument in favor of regulation. But Joskow argues that the upside of competition is that prices fall whenever there is excess generation capacity, while in a regulated system, prices rise because utilities are allowed to recover the fixed costs of building increased capacity, even if it turns out to be a bad investment. Thus, wholesale prices can be higher or lower than a monopolist's price, but electricity rates under competition will always track the changes in the cost of energy more closely. There is some concern today about future shortages of electricity supply due to plant retirements and inadequate investments, and the expectation is that market prices will provide the incentive to construct new generation capacity.

A New Optimism

When BGE's rates were placed under caps, the company survived the rate freeze (even as wholesale market prices were rising) by purchasing long-term fixed-price contracts for all of their residential obligations. The assumption was that the rate caps would come off July 2006, and prices from then on would closely track the market. Similarly, alternative electricity providers eager to serve the BGE's service area were gearing up to enter a new arena.

But an outcry over the very steep rate hike persuaded regulators to limit BGE's standard rate increase to a mere 15 percent, forcing the company to borrow money to make up for the difference and to collect on this debt by charging every household a few dollars every month for 10 years beginning January 2007. The promise now is that customers will pay full market rates by January 2008.

Even so, lawmakers made sure that retail competition would not be

affected. "Legislators went out of their way so as not to harm the market," says Wayne Harbaugh, BGE manager of

Status of State Retail Competition

Electricity retail competition and restructuring programs first took shape in Massachusetts, Rhode Island, and California in 1998, and then spread to about a dozen other states a few years later. But the yearlong California power crisis in the summer of 2000 as well as revelations of manipulation strategies in wholesale markets took the luster off of competitive reforms.

Although it is arguable whether these events were due to problems inherent in deregulation, it did prompt many states to rethink their plans. Since then, no other state has announced plans to deregulate, and others have simply abandoned, delayed, or significantly scaled back implementation. California and Arizona eventually suspended retail competition. Arkansas and New Mexico repealed their competition laws. Oklahoma and West Virginia both passed legislation to introduce retail competition but never implemented it.

More than half of the states are showing very little interest. North Carolina and South Carolina considered retail access several years ago but are no longer discussing the possibility of competitive reforms in the electricity sector. As wholesale market prices rose above regulated prices due to the rising costs of fuel, retail competition became less appealing, especially in states with relatively low regulated prices such as in the Carolinas. "Retail competition will not help when your prices are reasonably low," says Tom Lam, a senior engineer with the North Carolina Utilities Commission.

The sluggish pace of switching to competitive suppliers and the uncertainty of lower prices in states that have adopted retail competition is another reason why other states have shelved plans to restructure the electricity sector. For now, these states seem content to wait and see whether retail competition does indeed deliver its promised benefits. -VANESSA SUMO pricing and regulatory services. This was accomplished by charging the full 72 percent price increase on the customer's bill and then by giving a credit on the same bill that brings this down to 15 percent. Customers can take this credit even if they move to an alternative provider, which means that they will incur a price increase of not more than 15 percent, depending on how much savings they can get with an alternative supplier.

However, outrage over the 72 percent hike has prompted calls to look

Smart Metering

In the brave new world of electricity markets, the price that residential customers will pay for every kilowatthour of electricity can vary along with hourly movements in wholesale markets. Each household will be able to view real-time electricity prices, check the running total on their monthly bill every day, and choose to shift their consumption of powerguzzling appliances away from higher-priced periods or reduce their

use altogether. Metering will no longer be the dull activity of manually reading a mechanical device once a month but of sending and receiving data through а wireless communication link several times a day.

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It may come sooner than we think. Potomac Electric Power Company (PEPCO) together with the District of Columbia Public Service Commission and three other independent groups are planning to introduce Smart-PowerDC, a program that allows residential customers to manage electricity consumption and potentially lower their bills by using a "smart meter."

Each of the 2,250 D.C. homes participating in the two-year pilot project will be fitted with a meter that can measure electricity use every 15 minutes and transmit this information to PEPCO. Half of the

into the possibility of reverting to a regulated market. This uncertainty may have held back consumers from switching to alternative suppliers. "[Customers] were unsure as to whether some future legislative or regulatory action would ultimately prove to be a better deal than competitive supply. That uncertainty made many customers reluctant to accept cheaper competitive supply offers," says Kimberly August, director of regulatory and external affairs for Washington Gas Energy Services, an electricity provider. Moreover, some alternative electricity providers may have hesitated to enter the market. "One thing that may have given the suppliers pause is the uncertainty that was in the legislative and regulatory arena in this past year; they just weren't quite sure what was going to come out of the legislature," says Harbaugh.

This 'pressure cooker' effect and its accompanying pop in rates will be closely watched in states preparing to shed their own price caps. Virginia's

participants will also receive a "smart thermostat" that can, by means of radio signals, remotely raise or lower the temperature of an air conditioner or central heating system during exceptionally hot or cold days, when the price of electricity tends to be very high. It's up to the customer to reset the temperature to a more comfortable level, but they will be warned by real-time electricity prices displayed on the thermostat that

doing so will raise their bill. The pilot program will be used to test the response of residential customers to three pricing options that make use of their smart gadgets. Hourly Pricing charges customers based on hourly rates that are set a day before

in the wholesale market. Households who choose Critical Peak Pricing pay substantially higher rates during critical peak periods, about 60 or so hours throughout the year. For instance, the critical peak rate during the summertime can be about 64 cents, but only 6.5 cents during nonpeak periods. The final option, Critical Peak Rebate, charges the standard rate, but customers are allowed to earn rebates by voluntarily reducing consumption during critical peak periods. PEPCO expects to install the first smart meters before the end of the year.

Guided by price signals, smart meters put information and control in the hands of the consumers. Not everyone will be able to save money by using the smart meter, as some can simply choose to continue to consume the same amount of electricity even during higher-priced periods. "Those that are imposing the greatest costs on the system will be paying the highest prices," says Steve Sunderhauf, manager for program evaluations at PEPCO Holdings. But there is potential for significant savings for those who are more responsive to price changes.

Moreover, if this technology becomes widely used, a demand response to retail prices can ultimately have a moderating effect on prices in wholesale markets. "The piece of the market that is missing is the demand side," says Sunderhauf. As consumers shift electricity use from peak to off-peak periods, the prices in these two periods will also begin to narrow and create a smoother and flatter pricing schedule.

And there's the environmental impact too. Saving energy can help reduce global warming by burning less fossil fuel for generating electricity. That's three cheers for the smart meter. -VANESSA SUMO

lawmakers and consumers will surely be watching. Alternative providers contemplating entering the market will be on guard since companies will be reluctant to make large investments if there is a possibility that regulations can suddenly change the rules of the game. What may bode well for the state, however, is that they're phasing in some fuel and base rate adjustments early on, which may make the eventual pop easier to bear.

Amid all this drama, alternative providers in Maryland seem unfazed. The evidence is in the activity currently taking place. "There are more competitors coming in which is a good sign. We're seeing prices at lower than the utility's standard offer so there's robust competition. [This is] good for the end user in the long run," says Skip Trimble, a senior consultant at BTU Energy, an electricity provider working as an agent for Commerce Energy. At the moment, there are 23 licensed providers in the BGE area and six listed as actively seeking new residential customers on the Maryland Public Service Commission's Web site. Trimble thinks that most are offering prices that average 7 percent to 11 percent below the standard offer rates.

With both the residential and commercial sectors now open to retail competition and offering market-based rates, the market has been given a much needed boost. "We are seeing quite a pickup in activity," says Harbaugh. "[Right] now we have 26 retail suppliers [residential and commercial] that are licensed and doing business in our territory so it has been a dramatic pickup in the last couple of months."

Alternative suppliers are able to offer competitive rates through their business strategies as well as a rule that binds how BGE can buy electricity from the wholesale market. As BGE moved out of the transition period, bidding rules required the utility to go to auction on three different dates from December 2005 to February 2006.

Not only did everyone know that BGE was going to go out shopping at these specific dates, but the electricity prices in the wholesale market at that time were very high. But if the acquisition of electricity were handled like a real portfolio, as a manager would handle mutual funds, then alternative providers can beat that price, and that's where the expertise comes in. "They wouldn't buy on three days during the year, they would look each and every day if there's a bargain," says Trimble. "[But] that was not the utility's fault, that was legislative in nature," he adds.

Apart from carefully managing their electricity supply portfolio, BTU Energy's fundamental strategy, as well as that of others, is to bring together as many households and other small customers as possible into buying groups. By aggregating individual accounts and serving a larger load, competitive suppliers can get the scale they need to buy energy in bulk and offer better prices to smaller customers. Although incumbent utilities like BGE do effectively act as an aggregator for those customers who choose not to shop, Harbaugh explains that in Maryland, these utilities are very passive in the marketplace and simply act as a provider of last resort for those who have not yet chosen to switch to an alternative provider. Incumbent utilities are not allowed to actively solicit customers, nor are they permitted to pursue an aggregation strategy.

Competition Brick by Brick

Has deregulation failed? It might be easy to conclude so based on rising electricity prices in deregulated markets. But this would not be a fair assessment in many ways. With rate caps slowly coming off, it seems that deregulation may only be beginning in earnest in Maryland and other parts of the Fifth District, so that the benefits of competition could still be forthcoming. Lower prices will depend in part on how robust competition will be, and on this point we will have to wait awhile.

Prices will depend on market conditions for fuel prices as well. "People need to understand that in a competitive market prices go up and they go down and that when you have a fuel price shock, you're going to see potentially large effects on the electricity commodity, either up or down," says Joskow. Though retail prices may not change with the same frequency, they will follow wholesale markets more closely. In the future, Joskow hopes to see retail contracts that would allow households to choose to what extent they want to track movements in the wholesale market. This feature would be important in overcoming households' natural aversion to uncertainty - many families would be willing to potentially pay a few extra dollars more in exchange for a consistently predictable power bill.

And there is a value in electricity prices reflecting market prices. Without an appropriate market signal, households are shielded from the true cost of electricity that prevents them from making intelligent consumption decisions. When the wholesale price of electricity starts rising, as it has in the past years, households will only consume less if they are asked to pay for the market price. Collectively, this makes for better use of electricity and allows more people to enjoy the benefits of this resource.

Moreover, in well-functioning retail and wholesale markets, a demand response at the retail level would reverberate back to the wholesale market, making the overall electricity demand and supply balance as well as the price more stable. Retail price caps were one factor that exacerbated the power crisis in California six years ago because it increasingly detached customers from the reality of higher costs of electricity, particularly at a time of severe scarcity. As wholesale prices rose, incumbent utilities had to operate at a loss because the caps did not permit them to charge customers prices that reflected the increasing costs. The incumbents were also discouraged from purchasing longterm contracts to lock in wholesale prices. As their financial condition worsened, the incumbents had little choice but to interrupt power service on several occasions.

But price is not the only dimension of competition. If prices are set in the

wholesale market so retailers are similarly affected, then much of the benefit may come from offering differentiated products to customers at various prices, similar to the experience in the telephone and securities industries. So far, alternative electricity providers have been offering various shades of "green," energy produced by some combination of renewable sources from hydroelectric plants, solar panels, wind farms, and biomass fuels. Other innovations could stretch in different directions, including products which offer standard electricity but at various levels of price risk, quality and reliability, depending on what customers prefer and are willing to pay for.

One also has to take account of what the costs would have been in a regulated world with some of the problems that existed back then. People forget that an important part of why restructuring was pursued in the first place was because under a regulated regime, consumers were asked to pay for large generation construction cost overruns. With competition, investors bear the risk of these "mistakes," not the ratepayers.

If legislators are intent on going down the road of retail competition, the first thing that needs to be done is to allow prices to rise to market levels. While the sudden hike in retail prices in the BGE service area was painful for some, the eventual increase was inevitable. Capping rates for too long or not allowing some adjustments in the meantime would only make the eventual transition to market-based rates more painful.

Another necessary step, according to Craig Goodman, president of the National Energy Marketers Association, a nonprofit trade association representing wholesale and retail marketers of energy, is that the incumbent utilities should no longer provide competitive products and services that the market can supply at a better price. In other words, retail supply services like billing and collection (which the incumbents provide) should no longer be a monopoly function.

One could argue that it seems inappropriate for the incumbent, who is in fact a competitor of the alternative provider, to bill and collect on behalf of its competitors. But according to BGE's Harbaugh, Maryland is one of the few states that have already opened billing and metering to competition. Even so, most alternative providers still choose the incumbents' billing and metering services because nobody else can beat the prices they charge. For this reason, Harbaugh believes that most alternatives would not want the incumbent to get out of these businesses.

Informing households about how retail competition works is another stumbling block for new entrants. Most customers still don't know how retail competition works and how they can save money by switching suppliers, according to Sheirmiar White, founder of Ohms Energy, an electricity provider who operates in Maryland. White says that it costs his company about \$40 to \$50 to persuade a residential customer to switch over, a relatively small amount since it can come to as much as \$200 for other alternative providers. Goodman agrees. "One of the highest costs of competitive services is acquiring the customer away from a 100-year monopoly that's had 100 percent of the market share," says Goodman.

Surely there will be at least some "sticky" behavior on the part of consumers because the perceived costs associated with switching are high. However, once information barriers come down and the conditions are right, people will begin to choose the electricity service provider that best meets their needs.

But the sluggishness seems to reside among the legislators as well. Some states that have dipped their toes in restructuring the electricity sector have not had the determination to go with it all the way. The hesitation is understandable but a choice has to be made. When it comes to electricity deregulation, there is no stopping halfway. If retail competition is the goal, then the key to success is making sure the right incentives are in place. **RF**

READINGS

Borenstein, Severin. "Customer Risk from Real-Time Retail Electricity Pricing: Bill Volatility and Hedgability." National Bureau of Economic Research Working Paper no. 12524, September 2006.

Energy Information Administration. "The Changing Structure of the Electric Power Industry 2000: An Update." October 2000.

__. "Status of State Electric Utility Deregulation/Restructuring Activity." February 2003.

Joskow, Paul. "Markets for Power in the United States: An Interim Assessment." *The Energy Journal*, 2006, vol. 27, no. 1, pp. 1-36.

__. "The Difficult Transition to Competitive Electricity Markets in the United States." In Griffin, James M., and Steven L. Puller (eds.), *Electricity Deregulation: Choices and Challenges*. Chicago: University of Chicago Press, 2005, pp. 31-97.

___. "California's Electricity Crisis." *Oxford Review of Economic Policy*, 2001, vol. 17, no. 3, pp. 365-388.

Rose, Kenneth, and Karl Meeusen. "2005 Performance Review of Electric Power Markets: Update and Perspective." Virginia State Corporation Commission, August 2005.

Rose, Kenneth. "2004 Performance Review of Electric Power Markets." Virginia State Corporation Commission, August 2004.

Sutherland, Ronald. "Estimating the Benefits of Restructuring Electricity Markets: An Application to the PJM Region." The Center for the Advancement of Energy Markets, September 2003.

THE LIFE AND TIMES OF ALBEMARLE FIRST

The Charlottesville, Va., banking market experienced significant consolidation in the mid-1990s, leading a few new community banks to open their doors. For one it was a bumpy but ultimately successful ride

BY DOUG CAMPBELL

Editor's Note: This article was produced by the Research Department of the Federal Reserve Bank of Richmond based primarily on interviews with bankers and businesspeople in Charlottesville, Va. The Reserve Bank's Department of Banking Supervision and Regulation, which oversees banking institutions throughout the Fifth District, declined to comment and did not provide any information for this article, with the exception of items already in the public domain.

n a cruise ship somewhere in the Caribbean Sea, Jim Fernald checked his e-mail. A message had arrived from John Taggart, chairman of Albemarle First Bank of Charlottesville, Va., of which Fernald was also a director. The note said there had been a terrible development: Albemarle First, it had just been discovered, had lost potentially millions of dollars in a check-kiting scheme.

"My wife started laughing when she read it. She thought it was a joke," Fernald recalls. "But I knew Jack Taggart. I knew it was not a joke. And I could feel my breakfast coming up."

It was late February 2003, only four years into the short but eventful

history of Albemarle First. Not long before Fernald received that e-mail, the bank's founding chief executive, Charles Paschall, had resigned amid questions about loan quality. Profits had been elusive, with Albemarle going into the red in both 2001 and 2002. And now this — two local businessmen had been juggling money from checks drawn from Albemarle First and another bank, despite having insufficient funds in either account. The toll on Albemarle First was \$2.4 million — a potentially fatal blow to such a young bank.

Let it be said that most new banks do very well, providing their communities with a new source of funds and enhancing competition. For the most part, Albemarle First was no exception. But it certainly encountered its share of troubles, the check kite probably being the biggest. The story of Albemarle First offers a case study regarding the sort of problems startup banks can encounter and how those problems can be resolved.

The story begins with two friends talking one night in 1997. They observed that, at the time, two of Charlottesville's leading banks — Jefferson National and Central Fidelity — were being acquired by Wachovia. Together they had 46 percent market share of all bank deposits in Charlottesville. It seemed like an obvious opportunity for starting a new, locally owned bank. Charlottesville was growing fast, and the technology boom was still booming. There was money around town looking for good investments.

The two men were Taggart, arguably Charlottesville's top divorce lawyer, and Charles Gross, a faculty member and surgeon at the University of Virginia School of Medicine. They soon enlisted friends Frank Cox, who



owned his own urban planning firm, and Craig Wood, a partner at law firm McGuire, Woods, Battle & Boothe. These four would become the founding organizers of Albemarle First Bank (with Fernald and several others joining up soon thereafter).

It was a close-knit group. All four had degrees from the University of Virginia. Only Dr. Gross had significant experience with banking, owing to his family's one-time ownership of a small bank in Kentucky and his own service on the board of a small bank in Memphis. All four founders were prominent Presbyterians, and there was something of a religious passion in how they planned their bank. Yes, it would be a good investment for shareholders, but it would also be a bank for the little guy who was ignored by Charlottesville's other banks.

There are many reasons to open a bank. One of them is the financial incentive: Community banks historically have been safe, sometimes outstanding, investments. Another reason is prestige. In smaller towns, especially, the hometown bank tends to be at the center of important, local economic activity. Then there are those who see a genuine need and harbor a genuine desire to help their town's businesspeople. Community bankers like to style themselves as true friends of small business, always willing to listen and possibly lend when big banks and their impersonal credit-scoring models turn good borrowers away.

By all accounts, the organizers of Albemarle First were not motivated by the appeal of making money; they were already wealthy individuals. What they wanted was to make a valuable contribution to Charlottesville. "We wanted to form a local Charlottesville institution for banking," Gross says. "We thought we could serve the community well."

Whither Small Banks?

Economists usually define community banks as having less than \$1 billion in assets. In the United States, banks of this size represent about 90 percent of

all banks but account for less than 20 percent of deposits and loans. They endure in a time of big banks – with their economies of scale and vast branch networks - in major part because of their hometown advantage. That is, hometown loan officers can sometimes collect better information about borrowers, knowing more about their backgrounds; and the ability to make decisions without consulting higher-ups in other towns can be used as a marketing advantage. "Because large banking organizations, because of their size, tend to be centralized or rule-oriented, it makes it more difficult for them to provide 'relationship' lending in the way small banks do," says Gregory Udell, an economist who studies banking at Indiana University.

The focus on a small-business clientele is also natural. For one thing, small banks have less money than big ones to lend out; they can't serve Fortune 500-size firms. But new banks in communities where other banks have recently been acquired have an extra incentive to focus on small business: Banks which have been absorbed by larger banks, studies show, ratchet back their volume of small business lending. Other banks in the community then can pick up the slack, Udell says.

Albemarle First aimed to be this kind of new bank. It ended up with a 10-member board of directors (the 10th member being the CEO, Paschall). They included Fernald, who works as general sales manager at the local NBC-TV affiliate, and Marshall Pryor, at the time a partner with a local men's clothing store. The director with the deepest experience in banking was Richard Selden, a retired economics professor who had served 17 years on the board of First Virginia Bank. He was pragmatic. "I think I can truthfully say that I was by far the most knowledgeable person [on the board] about banking," Selden says. "I was never a true believer about any mystique about community banks. They all fail or succeed for the same reasons. I just wanted to have a good bank."

CEO Charles Paschall was recruited from a bank in the small southwest Virginia town of Tazewell, of which he served as top officer. Paschall had more than 20 years of banking experience and grew up in a sort of blue-collar section of Charlottesville known as Belmont: his father had been pastor of Belmont Baptist Church. His bank had been acquired by First Virginia, and Paschall was eager to take on a new challenge in his hometown. "I think the strength of our bank was that we were trying to put a premium on customer service and personal relationships," Paschall says today. "We were going after a broad market, not an affluent market."

Paschall began work for Albemarle First in May 1998. He set about building a bank where "customers were treated with respect and dignity." By Paschall's order, no employee had voice mail; customers would always speak with a live human being. "We had a really good approach," Paschall says. "People loved coming to our bank, loved our staff members, and loved our position in the community."

Albemarle First opened its doors on Dec. 28, 1998, with an office at 1265 Seminole Trail, just north of the University of Virginia campus, on the city's main retail strip. It had raised \$7.2 million in capital. This was not a lot of money, though it was within the norm of \$7 million to \$10 million for starting capital of Virginia banks during that time.

Albemarle First was hardly alone in opening that year. In 1998, nine new banks opened in Virginia, the most since 10 opened in 1988. Unfortunately for the founders of Albemarle First, they weren't the only ones in Charlottesville with the idea of starting a bank. The other was Virginia National Bank, and it in fact had a five-month head start.

The Other Charlottesville Startup

The founders of Virginia National saw the same opportunity Albemarle First's founders saw – a growing market with no locally owned bank. In particular, they saw that three large, out-of-state banks held about 70 percent of the town's deposits. The three founding directors at Virginia National were local businessmen Hunter Craig, C. Wilson McNeely, and Reid Nagle. They raised \$18 million in 21 days.

To hear Nagle — founder of the research firm SNL Financial — tell it, the Virginia National organizers never viewed Albemarle First as a formidable rival. "They [Albemarle First] didn't start with enough capital. Secondly, they didn't have the caliber of management that Virginia National started with," Nagle says. (Nagle resigned from the Virginia National Board in 2003.)

Paschall obviously doesn't agree with the second part of Nagle's assessment, but he does think that Virginia National's first-mover advantage helped it raise more money. "We probably should have had more," Paschall says.

Even before filing an application for their charter, the Virginia National organizers hired a CEO - finding Marcus Giles, a University of Virginia graduate, running a \$1.5 billion bank in Houston. What Giles liked about Charlottesville was the competitive landscape. "If ever there was an opportunity for a successful local bank, it was Charlottesville," Giles says. "I'd had experience running a bank, but more relevant was my experience competing against ... big banks. It's not just being there, saying 'we're local' but it's having a set of strengths that compare favorably to how they do business. That's the trick."

The two organizing groups were aware of each other. Giles describes a meeting he had with Frank Cox (one of the four Albemarle First founding organizers). They discussed whether some formal meeting between the two groups might be desirable to figure out if there was indeed room for both of them. Giles recounts the meeting: "His response was, 'We've thought about it, but no, we think this town is big enough for the both of us and there's too many philosophical differences between our organizing group and your organizing group.'"

By "philosophical differences" Cox may have been alluding to the perceived target markets of the new banks. Virginia National was seen as going after an upscale clientele whereas Albemarle First fancied itself a working man's bank. Around town, people joked that it was a battle between The Blueblood Bank and The Bubba Bank. Gross puts it this way: "We were aiming for the small businessman in Charlottesville, the ordinary citizens, not necessarily the wealthiest."

Giles doesn't agree with those characterizations, calling them "baloney" and marketing spin. It's true that Virginia National's strategy made it "choosier in the loans we went after," he says, but that's because the bank's focus has been in developing deposit relationships first, then lending relationships second.

Lending Culture

New banks have to be careful. "Any new bank in a community will face a pool of potential applicants that includes a backlog of those previously rejected over some period of time," wrote Philadelphia Fed economist Sherrill Shaffer in a 1997 paper. Shaffer concluded that newly chartered banks experience "substantially higher loan charge-off rates during their third through ninth years, consistent with theory." Particularly vulnerable, other research has shown, are new banks that start with low initial capital cushions because those cushions can quickly be eroded by a few bad, big loans.

"We were aware of that," Paschall says today, referring to Albemarle First's status as not only a new bank, but also the second new bank to open in a period of months. "We didn't relax our standards in order to get business. But we did try to find ways to make loans. When possible, we tried to mitigate the risk because, obviously, you don't make money if you don't make any loans." By "mitigate the risk," Paschall meant things like



Virginia National Bank entered the Charlottesville market shortly before Albemarle First.

requiring additional capital, changing payment structures, or lowering loan amounts. All loans were fully documented, Paschall says, and those of \$300,000 or greater were approved by the board's loan committee.

Back when he was a director at First Virginia, Selden had spent some time on the bank's loan committee, watching directors fire question after question at loan officers before granting approval. "They were tough. That was the foundation of the greatness of that bank," Selden says. "That was lacking at Albemarle First." Selden described meetings at Albemarle First where it was regarded as poor form to ask too many questions about a borrower's financial status. He also wondered, and frequently asked, why the bank hadn't hired a chief lending officer and worried that the bank was operating as a de facto "welfare agency."

Fernald says, "I've had people tell me, 'You were the only ones who gave me a loan in 1999, and I'll never forget you. Sometimes little businesses grow into big ones ... We wanted to give some people an opportunity to get funding that they might not [otherwise] get. That being said, in the process we obviously made some mistakes."

During 2001, many banks were beginning to have a rough time, with bad loan ratios rising from 1.12 percent nationwide to 1.41 percent, thanks to the combination of recession and the Sept. 11 terrorist attacks. The Federal Reserve Bank of Richmond schedules regular checkups with the banks that it regulates throughout the Fifth District. In such meetings, discussions often focus on loan portfolio issues. The Richmond Fed provided regulatory oversight for Albemarle First.

The reason bank examiners exist is because deposits at commercial banks are insured by the Federal Deposit Insurance Corp. (FDIC) up to \$100,000; without this protection, there would be little basis for outside supervision. Whether to put a loan on a "watchlist" or to downgrade it to "substandard" is often a judgment call — but one that carries with it consequences to a bank's balance sheet. A substandard classification can require, for example, that a bank transfer earnings to a reserve account for possible loan losses. For these reasons,

Growing Market Share

Virginia National Bank nosed into Charlottesville's top 5 in deposit market share by 2006; Albemarle First was a distant No. 7.

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BANK	MARKET SHARE		
Wachovia	32.24%		
NationsBank [*]	21.59%		
Crestar	18.64%		
Guaranty Bank	9.20%		
One Valley	7.81%		
2002			
BANK	MARKET SHARE		
Wachovia	28.50%		
Bank of America	22.08%		
SunTrust	15.85%		
Guaranty Bank	7.92%		
BB&T	7.72%		
Virginia National	6.53%		
First Virginia	4.68%		
Albemarle First	4.58%		
2006**			
BANK	MARKET SHARE		
Wachovia	24.39%		
Bank of America	23.23%		
SunTrust	15.61%		
BB&T	12.73%		
Virginia National	8.45%		
Union Bank	5.78%		
Albemarle First	3.49%		
 NationsBank became Bank of America ** Data as of June 30 			
SOURCE: Federal Deposit Insurance Corp.			

discussions between bankers and regulators can sometimes be sensitive.

Discussions about credit quality heated up at Albemarle First during the fall of 2001. On Dec. 20, 2001, Albemarle First issued a statement that Paschall had resigned. (Today he works as a consultant in North Carolina.)

Gross was a member of the loan committee during this time. While not discussing details, he explains Paschall's resignation this way: "The chief executive wasn't being quite as prudent at managing the bank, especially the loan portfolio, as we felt he should be."

Here are the numbers: In 2002. Albemarle First ranked No. 134, out of more than 7,000 commercial banks nationwide, in worst ratio of nonperforming loans (past due more than 90 days or no longer accruing interest) to total loans, at 5.27 percent. The national average in 2002 was 1.46 percent. By comparison, Virginia National has yet to post a year-end nonperforming loan ratio of higher than .03 percent. (The information conveyed in these ratios is limited, however, in that they do not tell us whether there were a large number of troubled loans or just a few, big-dollar problems.)

Albemarle First slid into the red in 2001 and 2002, posting annual losses of \$346,000 and \$280,000, respectively. (By comparison, Virginia National earned profits of about \$750,000 each of those years.)

These are not good numbers. But at the same time they don't suggest that Albemarle First was necessarily near failure. To Paschall they may misrepresent the true quality of the loan portfolio he developed. He says that profitability would not have deteriorated (Albemarle First had posted its first profitable month in mid-2000) and the bad-loan ratios would not have climbed as much had he been allowed to stay. "How a loan is worked out or collected has everything to do with the skill of the person who is collecting," Paschall says. Moreover, he says he disagreed with many decisions about whether to classify certain loans as troubled.

Paschall is correct that loan portfolio management does contain a significant subjective component, but his assertion that regulators were overzealous is the sort that almost any banking analyst would view with strong skepticism. Tony Plath, a business professor at the University of North Carolina at Charlotte who closely follows the banking industry says that, in general, successful community banks are wary of taking on big risks in hopes of raising profits. "That is never a winning game for community banks. The regulators are not trying to put a bank out of business," Plath says. "They're trying to keep the bank in business."

Jake Richardson worked as a loan officer at Albemarle First from January 2001 until February 2003. He worked in banking since 1982, though he now works in a different line of business. One of the main reasons Richardson came to Albemarle First was to work with Paschall, whom he had long admired.

Richardson puts the number of loans that were identified as troubled during the fall of 2001 at about 12, with most of those eventually being paid off to a large extent. He says he thinks it was "prudent to point out the troubled" loans. But in Richardson's eyes, some directors were simply waiting for an opportunity to do what they had been pondering for some time — to show Paschall the door. "I honestly believe that [the board] panicked and the situation could have been worked through," he says.

The decision of the directors, however, was clear: Albemarle First needed to take a new direction and that meant change at the top. With Paschall's departure, Albermarle First moved quickly to hire a new CEO, Tom Boyd, and pay greater attention to its lending culture. Boyd was recently retired from running Eastern Virginia Bankshares, a \$400 million bank in Tappahannock. A Charlottesville native, he was asked to serve at least two years in helping Albemarle First right itself, and he agreed. An accounting firm was called in to assess the loan portfolio. Then the bank hired a "workout" artist to clean up, restructure, and rebuild the troubled loans. There were some changes in the lending personnel, and soon the bank hired its first-ever chief lending officer. "We charged off some and worked with others and constructively tried to get what we could back on their feet," Boyd says. "There were some success stories, and there was a lot of blood, sweat, and tears."

In its 2002 year-end press release, Albemarle management suggested that a corner had been turned: "We believe we have now identified the large majority of problem loans in the portfolio and are pursuing resolution on these as quickly as possible."

The Kite

The following information was culled from documents filed in Albemarle Circuit Court: Sometime around June 2000, Charlottesville businessmen John Reid and Alan Pinkerton Jr. opened a demand deposit account at Albemarle Bank for a company called RPD Properties. RPD was one of three affiliated companies, including Ivy Industries, for which Reid and Pinkerton served as officers. Shortly after opening the Albemarle First account, Reid and Pinkerton embarked on a classic check-kiting scheme.

Basically, the point of a check kite is to take advantage of the float — the period of time between when a deposit is made and when a bank actually collects the deposited funds. Reid and Pinkerton would draw checks - in multiples of \$5,000 - from one of their accounts at SunTrust Bank and deposit them to their Albemarle First account. Albemarle First would accept the checks, provide credit to RPD Properties, send the checks to the Federal Reserve Bank of Richmond, which in turn would present the checks to SunTrust for payment. Meanwhile, during this one- or twoday float period, Reid and Pinkerton deposited checks drawn from their Albemarle First account into their SunTrust accounts.

This juggling gave the appearance, thanks to the float, of adequate funds when in fact none existed. In July 2001, for example, Reid and Pinkerton made 42 deposits at Albemarle First, totaling \$15.6 million. In the same month, the pair deposited 172 checks with SunTrust, totaling \$15.7 million, according to court documents. This pattern went on for more than three years.

On Feb. 26, 2003, the scheme unraveled when SunTrust notified Albemarle First that it was returning checks from Reid and Pinkerton unpaid. The returned checks summed up to \$2.42 million. In a final attempt to keep the kite alive, Reid deposited a check for \$2.42 million in the Albemarle account; it was drawn from an account at Southern Financial Bank. Reid then tried to cover the Southern Financial draft by depositing a \$2.42 million check drawn from the Albemarle account. The jig was up. (Reid had also falsified documents to get a loan at Albemarle First as well as several other Charlottesville banks. Virginia National, for example, lost what Giles recalls as about 20 percent of a \$1.2 million loan.)

"That was a mind-blower," Fernald recalls. The directors moved quickly, though. Each of them put up personal funds, Fernald says. And from April 4 to June 10, 2003, the bank raised \$2.35 million in new capital, though it did not come cheap. The bank had to reduce the exercise price of warrants it had sold in a secondary offering two years earlier from \$10.50 to \$7. (A warrant is a certificate that entitles the holder to buy stock at an agreed price; usually, this means an investor can buy stock at the warrant's exercise price and then resell it at a profit.)

Albemarle First sued the principals of the firms whose names Reid and Pinkerton had used in the checkkiting scheme. One of those was Francis Troost Parker, a retired, minority-owner of Ivy Industries. (That company had to close in the aftermath of the check-kiting scheme, causing a minor media sensation in Charlottesville while costing about 150 people their jobs.) The suit against Parker was eventually settled, but before it was, Parker filed a counterclaim that contained a scathing critique of Albemarle First's management.

Parker pointed out some seemingly obvious signs that a check kite was afoot, with the huge number of largedollar amount deposits made by a relatively small business. "Prudence and reasonable care, if not regulatory requirements, demanded that the bank have in place computer programs and other safeguards that would cause it to detect this kind of fraudulent activity," Parker's counterclaim said. "Even a cursory review of the monthly bank statements and the magnitude of the activity should have caused bank personnel to question the activity in the Albemarle First account and discover the fraud."

Albemarle First was able to recover some of the check-kite loss, making the final toll \$1.8 million. The bank also ended up losing almost exactly that amount in 2003.

More Twists

New banks have historically been good investments. David Danielson, president of bank consulting firm Danielson Associates in Vienna, Va., says that a recent sign of this is that new banks increasingly are being started by investment groups with no ties to the community where they aim to start a bank.

In the past, it was former executives of acquired banks that typically launched new banks. In recent years (though it's unclear yet how much it's still happening amid the housing market moderation in 2006), some of this has been just timing with the economy. "Most small commercial banks make a lot of real-estate backed loans," Danielson says. "And with the rise in real estate, we had banks with pristine loan quality and the ability to make these loans backed by real estate." That makes new banks, in general, an investment that is "very steady and with very good returns," he says. It is also a highly regulated, highly transparent business, and lately very safe. In 2005,



not a single U.S. bank (of any size) failed.

The flip side for investors, however, is that new bank stocks can be illiquid — hard to sell — during their first five or 10 years — unless the bank is bought out.

It was just as Albemarle First was putting the check kite and its lending problems behind it that Charlottesville businessman Richard Spurzem became the bank's largest outside investor. He had actually been buying up shares since 2001, but only started buying in big bunches in 2002, he says, figuring that the bad loans were largely behind Albemarle First and that any bank in the hot market of Charlottesville had to have a future. By 2004, he had amassed an 8.55 percent stake in the bank, making him the largest outside shareholder.

(It was about this time that Richard Selden quit the Albemarle First board. He didn't want to talk about the circumstances of his exit, but Gross acknowledged that Selden had "been a little critical." It also should be pointed out that Selden was 82 at the time.)

Meanwhile, Spurzem was impatient. The loan portfolio looked in better shape, true, and profits were beginning to trickle in. But with Albemarle's still relatively small capital base, there were limits to how much and how fast the bank could grow.

At the time, shares in Albemarle were trading, though thinly, at just less than 10, which had been the initial offering price six years before. In late December 2004, Spurzem sent a proposal to Albemarle's board: Sell the bank. Boyd said in a statement that the bank would indeed consider the request, which wasn't the only one.

According to a filing with the Securities and Exchange Commission, the search for a suitor officially began in January 2005. A consultant identified 29 potential acquirers. That list was quickly whittled down to six banks that had an interest in buying Albemarle First. The initial high bidder was Premier Community Bankshares of Winchester, Va., offering a \$29 million deal with 80 percent stock and 20 percent cash that would eliminate the name "Albemarle First." But then Millennium Bankshares of Reston, Va., came in with a bid that was 50 percent cash and 50 percent stock. Additionally, Millennium said it would preserve the name Albemarle First and keep two directors on the merged board.

On June 9, the boards of Albemarle First and Millennium approved the deal. "We are very excited to have a partner in Millennium Bankshares, a fine Virginia bank holding company that really believes in the traditional community bank concept," Albemarle First CEO Boyd said in a statement announcing the \$29 million deal.

Shares of Albemarle First immediately jumped to near the proposed sale price of \$15.82. And that ought to have wrapped up the Albemarle First story. But then came along an investor named David Harvey. He figures in the Albemarle story twice: Harvey at one point owned more than 9 percent of the bank's outstanding stock, picking up a sizable chunk in the bank's secondary public offering in the beginning of 2001. He sold off those shares fairly quickly, however. But he resurfaced in the summer of 2005, this time as a shareholder of Millennium.

On Aug. 5, 2005, Harvey's investment firm, Hot Creek Capital of Nevada, announced that it had bought a 6.21 percent stake in Millennium. In a letter attached to the SEC filing, Harvey objected to the Albemarle deal. Besides being disappointed with Millennium's returns to shareholders of late, Harvey said he disapproved of "your pursuit of a merger transaction which is highly dilutive to tangible book value per share."

Harvey's group was soon joined by like-minded investors in saying they would oppose the transaction. Millennium needed a two-thirds OK for approval of an amendment to its articles of incorporation that would increase shares of stock from 10 million to 20 million, and in the Nov. 28 shareholder meeting, it failed to get the necessary super-majority.

But by Jan. 13, a new deal was in place with original high bidder Premier Bankshares as the buyer. The bid this time was more favorable to Albemarle, including a 50-50 split between cash and stock as payment and with the preservation of the name "Albermarle First Bank" as a Premier unit. The \$29 million price stayed the same. The deal closed July 1, 2006. Two Albermarle directors, Fernald and Thomas Beasley, joined the board of Rockingham Heritage, the Premier bank under which Albemarle First now operates. Boyd stayed on as chief of Albemarle First.

To Harvey, this was about as good an outcome as Albemarle First could have expected. Harvey recalls buying up shares in Albemarle First with optimism back in 2001 only to quickly become discouraged. "In the case of Albemarle, we hoped for materially better performance. Our theory of investment evolved from one of looking over the long term, waiting for them to build a nice bank, to a shortterm one hoping for a sale. When we saw evidence of their defective credit culture, that led to sale of the stock."

There are inevitable comparisons with the other Charlottesville bank that opened in 1998 — Virginia National. At the end of 2005, Albemarle First had generated profits of \$243,000, with three branches and \$101 million in deposits. Virginia National's profit was \$3.1 million, with six branches and deposits of \$250 million. Virginia National held about 9.5 percent of the Charlottesville market, trailing only four big banks; Albemarle's market share was 3.8 percent. "Albemarle ultimately and inevitably became sold," Harvey says. "The other bank [Virginia National], not necessarily so. It's going to make people a lot of money simply by producing return on equity."

Reid Nagle, the former Virginia National director, notes that several other banks have entered the Charlottesville market since 1998, including a startup. All of them have been fairly successful, and that's good for Charlottesville, he says. "It serves the market best to have this effective competition," Nagle says. "Albemarle First wasn't effective competition."

A New Beginning

Despite all the setbacks - from opening just months after another new bank had hit the scene to the lending crisis to the check kite and to the first, failed merger - this looks like a happy ending. The leaders of Albemarle First overcame the early problems and successfully built up a franchise with more than \$100 million in deposits and a name valuable enough that the new owners didn't want to change it. For shareholders who bought the stock in 1998, Albemarle's sale price equals about a 5.9 percent annualized return. Many stocks have done worse than that. (On the other hand, Virginia National, which first started trading at \$10 a share in 1998, today trades at around \$40.)

"It turned out to be a good investment," Gross says. "Obviously it would have been better had there not been the kite." Says Boyd, "I think those [shareholders] who have elected to stay with the new bank will find that it's a good investment. We're a growing bank in a growing market."

Robert De Young, associate director of the FDIC's division of Insurance and Research, is one of the nation's leading researchers of community banks. He says that startup banks in particular face four major risks: overaggressive loan growth; dependence on noncore (which include deposits exceeding \$100,000 and brokered deposits) funding; poor cost control; and a poor local economy. Aside from this final factor, all the others are within management control. "When you look at two banks in the same market and why one did well and the other didn't, you have to look square at management," DeYoung says.

That said, DeYoung adds, the vast majority of new banks succeed. In one study, DeYoung found a new bank failure rate of 16.5 percent over 14 years, which is substantially lower than the 60 percent failure rate of other new businesses. In fact, the 16.5 percent rate happened during a period which included the savings and loan crisis of the 1980s, the nation's worst time of bank failures since the Great Depression.

Asked what sort of advice he would give aspiring bank organizers, Fernald says: "You absolutely have to have a president and chief lending officer that you have 100 percent faith in. And I think the bank board should have at least three outside directors with experience on previous bank boards ... I think bank directors need to go out and get business, of course, and I've tried to do that. They also really need to be able to follow the financials and fully understand them."

To Spurzem, it all comes down to the board. "These people took a bank in one of the best markets in the country, and they couldn't do it." As it happens, Spurzem at one point wanted to join the board. Sometime in 2004 Spurzem says he had lunch with Taggart to talk about it. Spurzem says that Taggart explained how the board was virtually conflictfree. The suggestion was that Spurzem's addition would disrupt this geniality.

"I thought I could help them out," Spurzem says, though the board obviously thought differently. "On a board, you should have some contentious issues, some dialogue. If everyone is saying the same thing, someone is not asking the right questions." **RF**

Postscript: In reporting this story, I contacted each of the nine founding directors of Albemarle First (with the exception of Marshall Pryor, who in 2004 became an employee of the bank) and asked for an interview. Only three responded — Gross, Fernald, and Selden.

I was most interested in hearing from John Taggart, the founding chairman. I first called him just a few days after the sale to Premier closed. He said he'd be glad to talk with me — but first he needed to check with officers at Premier. He asked me to call back later that day. When I did, I got his voice mail.

Over the next two weeks I left six more messages and one e-mail. Twice, a secretary told me Taggart wanted to talk and would soon call me back. He never did.

READINGS

De Young, Robert. "For How Long Are Newly Chartered Banks Financially Fragile?" Federal Reserve Bank of Chicago Working Paper no. 2000-09, September 2000.

De Young, Robert, William C. Hunter, and Gregory F. Udell. "The Past, Present, and Probable Future for Community Banks." Federal Reserve Bank of Chicago Working Paper no. 2003-14, January 2003. Keeton, William, et al. "The Role of Community Banks in the U.S. Economy." Federal Reserve Bank of Kansas City *Economic Review*, Second Quarter 2003, vol. 88, no. 2, pp. 15-43.

Shaffer, Sherrill. "The Winner's Curse in Banking." Federal Reserve Bank of Philadelphia Working Paper no. 97-25, November 1997.



hole Foods Market is rising toward the top of the food chains. Sales at the world's leading natural and organics supermarket soared to \$4.7 billion in 2005, growing by 22 percent over the previous year and more than doubling over the last four years. But everyone, it seems, is after its market share. Whole Foods' more than 170 stores across North America (plus about 70 more to come, including one in the United Kingdom) are today the envy of many.

It's difficult to ignore the natural and organic food sections that have sprouted alongside "conventional" choices in big and small supermarkets across the country, testament to the booming demand for all things organic. Supermarket giants Safeway and Wal-Mart have responded by moving aggressively into organic products this year. While concerns abound on whether the rise of "big organics" could water down standards and depress prices to worrying levels for farmers, what is clear is that consumer demand is poised to grow rapidly as organic products extend their reach into the homes of many Americans.

But demand is growing so fast that supply can barely keep up. News of shortages of organic milk, orange juice, meat, and other food products has raised the question: Why don't farmers produce more organic foods? At a glance, it would seem that they could fetch higher prices for organic output compared with conventional foods. But conversion to organic farming cannot happen overnight, nor is it a decision that a farmer takes lightly. The adjustment is slow because of a three-year transition period that involves risks, profit loss, mastering an entirely new farming system, and a lot of record keeping. "I think that the transition period is very difficult for a lot of [farmers] to bridge," says Catherine Greene, an economist with the U.S. Department of Agriculture (USDA). Farmers must weigh the strong price premium for organic products on the one hand against the costs and risks on the other and decide: Is transitioning to organic farming worthwhile?

A Natural Preference

Consumer demand for organics has been impressive, with market share tripling since 1997. That said, organics still made up only 2.5 percent of all food sales in 2005. Within the organic food basket, demand for meat, fish, and poultry grew by 55 percent in 2005 over the previous year, while organic dairy expanded by 24 percent. Organic fruits and vegetables take up the largest share of the food basket, and demand for these products increased by a steady clip of 11 percent.

Why do people buy organic? The increasing passion for organic food comes mainly from the perception that it is safer, healthier, and better for the environment. Organic produce is grown free from most types of synthetic chemicals used to kill pests or weeds or to fertilize crops; and organic meat, poultry, eggs, and dairy come from animals that are given no antibiotics or growth hormones. Organics are also believed to contain more nutrients than conventionally produced food. And because chemicals are avoided in organic farming, the gentler treatment of the land nourishes the soil and reduces water pollution.

Consumer confidence in buying organic food has also been encouraged by the standards set by the USDA. To get the coveted "USDA Organic" label, a product must be made with at least 95 percent of organically produced ingredients. This has helped make consumers more confident that they are actually getting what they are paying for - usually at a premium over nonorganic foods. As demand has increased, more stores have decided to carry organic products, making them easier to find. About 46 percent of organic food was purchased through conventional supermarkets, mass merchandisers, and club stores in 2005, almost as much as the share bought through natural food outlets.

But as Americans increase their appetite for wholesome fare, the organic food supply has been falling far short of demand for anything from meat to milk to nuts. So much so that it's limiting manufacturers' ability to churn out more organic products. In the Organic Trade Association's 2006 survey of organic food manufacturers, 52 percent reported that "a lack of dependable supply of organic raw materials has restricted their company from generating more sales of organic products."

The shortage is forcing producers to look abroad. Scarcity of raw materials is leading Stonyfield Farm, a large organic yogurt manufacturer, to consider sourcing organic milk powder from New Zealand. Organic meat has likewise been in short supply due to the low number of organic livestock producers in the country, according to natural foods consultancy Organic Monitor. As a result, meat producers are importing organic beef from Australia and Latin America.

Large organic distributors, which are often at the forefront of this tussle between supply and demand, concur with this picture of scarcity. "Almost every commodity you can think of is being supplemented with products from overseas right now," says George Kalogridis, president of organic food supplier George's Organics. "We could not have the growth we're having in any commodity item without the overseas production." How much organic food is imported is difficult to say precisely, since U.S. trade codes currently do not distinguish between organic and nonorganic products.

A recent USDA report, however, estimates that between \$1 billion and \$1.5 billion of organic food was imported in 2002, representing about 12 percent to 17 percent of organic food sales during that year. Sourcing organic food from abroad will likely remain significant even as more farmers switch to organic farming: Some products are not grown locally (such as tropical fruit and coffee), are needed to supplement production during the winter months, or are simply cheaper to import than to produce at home.

Domestic supply is doing what it can to keep up with the strong demand. As of 2003, the number of certified organic livestock rose by almost sevenfold in six years, while the number of poultry was 11 times what it was in 1997. Certified pasture and cropland was up 63 percent over the same period, but this is only 0.2 percent of the country's total agricultural acreage. In comparison, the share of farmland devoted to organic production in all 15 countries (before the 2004 enlargement) of the European Union (EU) is 3.9 percent, or more than five times the amount of organic farmland in the United States.

One possible reason for this difference is that the EU has actively promoted the growth of its organic sector, unlike the United States, which takes a more hands-off approach to organic production, according to USDA economists Carolyn Dimitri and Lydia Oberholtzer. From the EU's perspective, organic agriculture provides environmental and social benefits, public goods that justify government intervention through "green payments," or subsidies to converting and continuing organic farmers. While the United States does subsidize certain farm products, regardless of how they are grown, there are no subsidies

available for farmers to convert from conventional to organic farming. Regardless, the supply of organic food — whether produced domestically or abroad — should eventually catch up with consumer demand. But the adjustment process will certainly take some time.

Got (Organic) Milk?

If one asks industry observers where the widest gaps in the supply and demand for organic commodities are at the moment, chances are their first answer will be that nutritious white liquid that is the staple of every family diet - milk. Organic milk has been in such high demand over the past couple of years that at times supermarkets have had to put up signs that there is no certified organic milk available. Colorado-based Horizon Organic, the largest organic milk processor in the country, estimates that orders from retailers grew 10 percentage points faster than actual orders filled in the last year and a half for the entire industry.

Hence, it is no surprise that organic milk currently sells at about twice the price of conventional milk. This attractive price premium is also due to factors affecting the supply of conventional milk. "The productivity in the dairy industry has been pretty impressive," says agricultural economist Geoff Benson of North Carolina State University. Production per cow has been increasing thanks to better genetics, management, and health care. Because of these improvements, the growth in conventional milk production has been increasing faster than sales, preventing prices from rising over the long term and actually reducing real (inflation-adjusted) prices. More production per cow also means that fewer cows, and therefore fewer farms, are needed every year to supply the market.

Booming demand for organic milk, on the other hand, has kept its prices on the upswing. Milk processors, buoyed by strong consumption, are even willing to offer guaranteed prices for the farmers' output.

Hundreds of family farmers across the country have responded to this opportunity, including a small group from the Shenandoah Valley in Virginia who are scheduled to deliver their first batch of organic milk this fall. For some of these dairymen, the natural process of organic farming has appealed to them before. "It's something I wanted to do for years," says Virgil Wenger, who was grazing his cows and using less spray on his crops years before he even made the transition to organic farming. "Then the price looked like it might be a little bit better, a little bit more stable, than the ups and downs of conventional milk," says Wenger. But transitioning is no small task because of the requirements, risks, and the need to learn an almost entirely new way of farming.

Cows in a conventional dairy operation usually spend most of their time in confinement. On the other hand, organic rules require that cows graze, such that they receive most of their feed from pasture. If a conventional dairy farmer wished to convert, he

A Growing Appetite for Organic Food

Organic food sales in the United States reached \$13.8 billion in 2005. Although only 2.5 percent of the total food basket, the share of organic food has more than tripled since 1997.



would need to have enough land to give his cows access to pasture. Some confinement farms may have grown so large over the years that the farm may not have enough land to support the herd.

If there is enough land, then the first thing that the farmer needs to do is prepare the pasture on which the cows will graze. For the land to be certified organic, no commercial fertilizers or chemical substances that kill weeds or pests should have touched the land for three years. The herd must be converted as well. Dairy cows must eat only organic feed during the last year of transition. They cannot be given growth hormones, and when they get sick, they cannot be treated with antibiotics.

These rules require changing the way a farmer is used to solving problems on the farm, and those solutions can be expensive. Spraying crops with pesticides, for instance, is a less expensive way of eliminating weeds than pulling them out mechanically. But if organic farmers are not allowed to use these prohibited substances, their crop yields will fall, and in organic dairying this means less feed and less nutrition for the cow. Ultimately, the amount of milk produced may be lower in an organic system than under a conventional operation, especially during the transition period when the farmer is still learning the new production technology.

Moreover, the farmer will be paid the lower conventional milk price, not organic, during this three-year transition period. The organic milk check only starts coming in after the land and the cows have been certified. But there's more. The organic cow has to eat organic food, and the price of allnatural corn and soybean feed, which itself has to be grown from farms that must go through their own transition process, is currently double or triple the price of the conventional variety. Thus during those three years, the farmer can suffer a substantial loss in revenue by farming organically but without the benefit of receiving an organic milk premium.

Farm Aid

For the Shenandoah Valley dairy farmers, one important factor that has eased their transition to organic dairying is the technical and financial assistance that they're receiving from Horizon. Organic milk processing companies are aware that the difficulties of transitioning can act as a significant barrier for most farmers to enter the market. Because of this, companies like Horizon and Organic Valley, another important milk supplier, are actively recruiting farmers and helping them convert their farms, in exchange for securing their milk supply.

The assistance that these companies provide varies from farmer to farmer. A typical arrangement between the Shenandoah Valley dairymen and Horizon includes an amount to help defray the cost of organic feeds during the transition and a guaranteed price and market for their milk once it is certified.

In particular, Horizon puts in \$1 for every 100 pounds of milk it sells during the last year of transition, when at least 80 percent of what cows eat is expensive organic feed. When the organic feed requirement goes up to 100 percent in the last 90 days of that year, they're given an extra \$1. Moreover, once the milk is certified organic, they're guaranteed to receive at least \$26 for every 100 pounds of milk they produce for two years, about double the current price of conventional milk. As a sign-up bonus, they'll also receive \$1 more than the selling price for the first seven months after certification. All the milk that they produce will be sold to Horizon, and after the two-year contract is up, the farmers can choose to renegotiate or go to another company.

Securing a market is crucial for organic dairy farmers, a luxury that most conventional dairy farmers don't have. "You're insulated from fluctuations in market prices, and it's much easier to plan or manage a cash flow if you're guaranteed a floor price," says Gordon Groover, an agricultural economist at Virginia Tech. "It's a way to reduce risk in those early startup years."

Planning a Wholesome Future

Such a marketing arrangement makes it easier for these farmers to weather the financial perils of the transition years, and can set them on the right track to becoming a profitable dairy business.

Some also truly believe in the value of organic farming. "If you take care of nature, then nature takes care of you," says Arlen Beery, one of the transitioning dairy farmers. "There's a harmony there that you can't get with conventional farming." When advising farmers on whether to transition, one of the first things that Benson asks is whether the farmer is "in tune" with organic production. USDA certification lists many rules for this type of farming system, and for some dairymen, these may not make sense. "Consumers have certain expectations about how organic products are produced, and if you don't buy into that, you're probably not going to be successful as an organic producer," says Benson.

Assuming that the farmer has the resources and the willingness to take on this new enterprise, the difficult financial question then follows — will the additional return or price premium be big enough for him to repay his investment during the transition period, and still be able to earn at least as much as he did as a conventional farmer?

This depends on how large the price premium for organic milk will be in the coming years. The price advantage that organic farmers enjoy today has been pulled along by a robust market for organic milk. But as more and more farmers switch to organic dairying and the pace of milk production finally catches up with the growth in demand, this premium will begin to narrow. Supply may also be affected by imports of organic dairy. Although imported milk may be less of a concern because this is a perishable product, and thus harder to ship from overseas, imports of organic dairy products like cheese and butter that have a longer shelf life could affect the fluid milk price that farmers receive.

So which farmers are likely to make it through the transition and thrive over the long haul? While there isn't a list of specific characteristics that would make an organic dairy farm more successful than others, some factors such as farm size could matter. There are few studies that say anything conclusive about organic dairy farming, but Groover notes that studies of conventional dairy farms nationwide show that farms with herd sizes of less than 300 cows are less profitable, less labor efficient, and have higher costs of production than larger dairies. It's possible that this holds for organic farms as well.

On the other hand, the cows' grazing requirements imply that the upper limit on efficient farm size is probably smaller than for a conventional operation, which would be welcome news to many small farmers who are looking to make the transition to organic. "Part of it depends on what the family expectations are. Some people are quite content to have a fairly modest income and they're more interested in the lifestyle, so part of it is what they're shooting for," says North Carolina State's Geoff Benson.

Arlen Beery, for instance, is even

talking about scaling back, banking on more profit per cow. "I'm planning to milk fewer cows once I become [certified]," he says.

In the end, the profitability of the farm will depend on how well the farmer manages his business, given his own set of conditions and resources, the approach being no different than in any other agricultural or main street venture. "Those individuals need to be innovative. They need to focus on the management itself because you're dealing with a new enterprise where the production process is not well understood," says Groover. "In theory they may understand what's going on, but the day-to-day management is going to have to adjust fairly quickly to maintain viability."

Farmers must be willing to spend time to develop a sound farm plan, run those numbers to see what the financial implications are, and decide whether it's viable or not. "It's truer than not to say that every farm is unique. What the family is trying to accomplish is unique to that family, what is feasible for one may not work for another. Don't get [drawn] into the wave of enthusiasm. Don't follow somebody else's example without making sure that it fits your situation," advises Benson.

A dairy farm, particularly an organic one, conjures images of romantic pastures and cows blissfully chewing their cud under a tree. It may be easy to get lulled into such a picture-perfect setting. But farmers are also businessmen, or at least they need to be. In planning for a wholesome future, the numbers must make economic sense. **RF**

READINGS

"Dairy Your Way: A Guide to Management Alternatives for the Upper Midwest." Minnesota Department of Agriculture, 2006.

Dimitri, Carolyn, and Lydia Oberholtzer. "EU and US Organic Markets Face Strong Demand Under Different Policies." *Amber Waves*, United States Department of Agriculture, February 2006, vol. 4, no. 1, pp.12-19.

Kortbech-Olesen, Rudy. "The United States Market for Organic

Food and Beverages." United Nations Conference on Trade and Development, March 2002.

Padgham, Jody. Organic Dairy Farming: A Resource for Farmers. Gay Mills, Wisconsin: Orang-utan Press, 2006.

"Transitioning to Organic Production." Sustainable Agriculture Network, October 2003.

CAMPUS RLASTIC

College students cope with unsecured debt

BY BETTY JOYCE NASH

hen Megan Gillespie was a freshman at West Virginia University (WVU), she signed up for a credit card. A campus fraternity got paid for each application. "If you filled out a credit application, you got a free T-shirt," she says. "I put 'zero' for income and filled out all my information, and they sent me a credit card with a \$3,000 limit."

She used it for summer school and found out about interest rates, fees, and fine print the hard way. "It was even hard to cancel," she recalls. "I kept calling to cancel and they kept saying it was part of the terms and that [canceling] would ruin my credit. My mother finally got on the phone and threatened legal action."

Gillespie is a senior this year. WVU has nixed the hard sell accompanied by freebies, says Tom Sloane, senior associate dean of students at WVU. State law now requires community, technical, and state colleges to establish marketing rules. But many colleges and universities continue lucrative partnerships with card issuers that allow campus solicitations.

Students like Gillespie - who are taking out loans to pay for tuition

while also using credit cards – appear to be growing in number. Additionally, there's evidence that students are using credit cards to cover shortfalls in student loans, including private loans which accrue interest during college. And student debt casts a longer shadow: It determines future jobs, marriage and family timing, and how much students save for retirement, if they save at all. How, for example, could a graduate who borrowed \$50,000 for college afford a required student loan payment of \$613 per month (assuming 8.25 percent interest over 10 years) on a teacher's annual pay of \$28,000 - while maintaining a credit card balance?

Anecdotal evidence like this has prompted consumer advocates to question whether credit card companies are unfairly targeting students, who may be financially naïve. But there is a fairly solid consensus among mainstream economists that reports of out-of-control student debt have been overblown. Isolated anecdotes don't always portray widespread social ills, and unsecured credit is convenient. It spaces out purchasing patterns for students as it does for other people. Students may not be any more likely than anyone else in society to suffer credit woes.

Survey Says

There's no definitive data set on student credit card use. Moreover, the extent of student credit card debt is hard to quantify because it's not tracked by official statistics. The Federal Reserve Board's Survey of Consumer Finances doesn't capture data from this age group. Nor does it sample individuals in group quarters such as college dorms. But other surveys provide some evidence.

The American Council on Education analyzed 2003 to 2004 data from the National Postsecondary Student Aid Study and concluded that more than half of all college students (56 percent) have at least one credit card in their name, with the median reported balance at \$1,000. About 25 percent of student credit card holders said they used the cards to pay tuition.

Widely quoted data from lender SLM Corp., better known as Sallie Mae, found similar results. Its subsidiary Nellie Mae, which administers government and private loans, takes data from applicants' credit reports. The survey started in 1998 when concern arose over students' growing credit use.

Student card use fell, according to the 2004 report. Financial education and the media spotlight, along with some state laws like West Virginia's, may have slowed card use. The average balance was \$2,169, the lowest since 1998; median debt was \$946, down from \$1,222 in 1998. While there's no broad data set that represents students, the Fed's 2004 Survey of Consumer Finances noted that 46.2 percent of families carry credit card debt, with a median balance of \$2,200, a 10 percent increase over 2001.

What all these survey results show is that student credit card use is widespread, but not necessarily more so than in the population at large. Moreover, student credit card use itself isn't that big a deal, but it's part of the bigger story of overall student loan debt, says economist Angela Lyons of the University of Illinois.

"What's happening is the financial aid packages aren't keeping pace with the rising costs of college," she says. "Students are having to turn to other alternatives, one of which has been credit cards." For example, more students now take out private loans, and those payments aren't deferred until after graduation. (Interest rates for government loans recently went from about 5 percent to between 7.14 percent and 7.94 percent, depending on the loan.)

Lyons' big worry about credit cards is the effect on students' future access to credit. If the students foul up their credit, they'll pay higher interest rates on mortgages and cars. They may also damage their chances to find a job among employers who use credit reports when evaluating applicants.

Gillespie, who is from Beaver County, Pa., works 15 to 20 hours a week in a variety of jobs related to her field, broadcast journalism. She earns about \$200 a week, and she uses credit cards to tide her over when needed. She estimates her student loan debt at \$65,000 upon graduation. While she has no card debt — for that she credits her parents' attitudes toward consumer debt — some of her friends are dodging collection notices. "Probably about 15 of my friends are in trouble with their credit cards," she says.

Overblown?

Richard Todd, an economist at the Minneapolis Fed, is not convinced by such stories that student credit card debt is a widespread problem worthy of policy intervention. Monthly balances grow as students close in on graduation, he notes, reflecting card issuer behavior as well as student behavior, as firms probably increase limits on older students. The pattern is consistent with the idea that as students approach graduation, they begin to draw from their future salaries. In this way, students are behaving much as economic theory says they should. "I think there is evidence, at least on the surface, of a simple story that says as people become more confident they're going to finish and have a decent draw, they're going to draw on that income," Todd says.

He points out that while some students get into trouble, the rate is probably higher for other groups of adults in the same age range, for example, young military recruits (see sidebar).

"If you look at young working-class adults going into a low-paying job, I suspect their financial problems are bigger, and we don't have a lot of data on them either," he says. "The reports of the massive social problems of massive credit card use have been greatly exaggerated."

Lyons agrees that "on the whole, students are probably doing a pretty good job." In 2003 she surveyed 150,000 students in the Midwest about credit card use. The response, about 20 percent, was consistent with other surveys. "I haven't seen anything jump out at me that says this is really out of whack and students are mismanaging their cards." That said, Lyons observes that certain groups struggle with credit: the poor, minorities, and women, groups that in the past had a hard time obtaining credit. "Now there's great concern ... about whether it's good for groups traditionally constrained to be taking on this credit."

Student Market

The reason card issuers market to students is loyalty, says Peter Burns, who directs the Payment Cards Center for the Philadelphia Fed. "If they can get a customer at that early age, and if they are going to college, it is more likely that they'll have a job that will allow them to become an even better card customer in the future." Students are typically held to low credit limits. One study, funded by the credit card industry for the Credit Research Center at Georgetown University, found the mean credit limit for student accounts to be \$1,395 compared to \$3,581 for nonstudent, young-adult accounts in 2002.

Data processing and communications technology have created risk-based pricing. In selling cards to students, issuers can use expected income to determine creditworthiness. At the same time, credit card earnings have been consistently higher than returns on all commercial bank activities, leading consumer advocates to say issuers profit from fees, charges, and high interest rates by marketing credit to a group who might not have enough money now to keep debt from escalating. Consumer groups would like to see additional disclosure rules, along with a ban on retroactive interest rate charges, among other changes.

The Center for Responsible Lending, which is asking the Federal Reserve to review its entire 1968 Truth in Lending regulations along with its current review of open-end credit rules, says card issuers sometimes "opaque and complex accounting methods ... distort cost information and competition."

For example, paying only the minimum can sink the financially

Basic Training: Financial Education

College students are not the only segment of the young-adult population who are sometimes inexperienced when it comes to personal finance. So, too, are those who enter the job market or the military after high school.

For example, nearly half of enlisted military are under 25. And for them, the stakes of financial mismanagement are particularly high. If they get into financial trouble, they can lose security clearances and be pulled off deployment. "When you're looking at maintaining security, it [financial maturity] speaks to responsibility and accountability. It's paramount to holding certain levels of security," says Lt. Col. Jeremy Martin, a spokesman for the Department of Defense (DOD). "Not being able to manage your finances could be an indicator. Training in personal finance varies, but nearly always includes budgeting basics, among other skills," he says.

Federal Reserve Board is gathering data from ongoing surveys of enlisted military personnel, says Jeanne Hogarth. She manages the consumer education and research section of the Board's Division of Consumer and Community affairs. The study tracks groups of enlistees, one with formal financial education, the other without. The first five months of data are being crunched now. The groups average 22 years of age. The groups will be surveyed every six months over three years. Hogarth hopes to publish first results from this ongoing survey in 2007.

un-savvy, including students. Histor-

ically, issuers required minimum

payments of about 5 percent. But that

fell to about 2 percent in the late

1990s, according to a GAO report in

2006. Extremely low payments left

customers with balances that, along

with finance charges and fees, extend-

ed "repayment periods well beyond

reasonable time frames," according

to the 2003 regulatory guidance

issued by the Federal Reserve Board

that attempted to address the prob-

lem. Nowadays, minimums are rising.

credit efficiently, it has "come at a

cost in the form of a complex and

customized product whose pricing is

difficult to summarize," according to

a 2003 paper by economist Mark

Furletti of the Philadelphia Fed.

While risk-based pricing allocates

"That will buy us an ongoing rollout of information," she says. "By 2009, we would have a robust analysis of long-term trends and patterns we see in these young men and women."

Financial education among recruits is essential in part because of lending practices that target military personnel, according to an August DOD report to Congress on predatory lending and the military. The DOD is ramping up efforts to educate members about such practices as well as overall financial management. The department also is seeking protections such as a federal ceiling on the cost of credit to military borrowers, "capping the [annualized percentage rate] to prevent any lenders from imposing usurious rates," according to the report. While that would limit credit to certain servicemen, the report states: "Limiting high-cost options assists the Department in making the point clear to Service members and their families that high cost loans are not fiscally prudent." - BETTY JOYCE NASH

Disclosures can be difficult, Burns agrees, and frustrate consumers and companies alike. The best solution is education. Who would want to return to the days when all interest rates and fees were the same? Under that scenario, "some significant percentage of the population won't qualify because their risk will be too high," he says.

Robert Manning, author of Credit Card Nation and a professor of consumer finance at the Rochester Institute of Technology, has criticized the lack of statistics on youth card debt as well as failure to enact the College Student Credit Card Protection Act. He argues that deregulation, beginning in 1978 with the Supreme Court decision permitting banks move headquarters to states with high interest rate ceilings, allows people to get credit because it's profitable for the issuer, not because they have demonstrated creditworthiness.

In a study of college students at George Mason University in 2002, Manning found that some 60 percent of undergraduates had "maxed out" their credit cards and 58 percent had used credit cards to pay down other credit cards. And 73 percent had used student loans to pay down credit cards. Default rates among students, he notes, would be larger if students did not have access to student loans, other credit cards, and parents.

Credit Counseling

These findings may be troublesome to some. But to many economists, they don't suggest the need for regulatory actions like the type Manning prescribes. Yes, using credit takes practice, like driving a car, but restrictions on its flow aren't the solution, says Lyons, because students generally use credit responsibly. She's seen seniors who ran out of money one semester shy of graduation. "They charged it on their credit cards; they got their degree, and they got out."

Early lessons in personal finance, including separating needs from wants, can teach students how to behave financially, says Dottie Bagwell, who teaches personal
financial planning at Texas Tech University. She noticed card debt problems among her students and started a financial education program called "Red to Black," in which she requires students to keep a spending diary.

"A cell phone is a 'need' now," she notes. (In fact, some dorms do not have telephones.) And iPods now appear on those need lists occasionally. Students' total indebtedness often includes auto loans. "I walk through the parking lot and see really nice cars."

Bagwell and co-authors So-Hyun Joo and John Grable in 2003 looked at student credit card use, behavior, and attitudes using a sample of 242 undergraduates and graduates via survey. The survey included questions about ethnic/racial background, academic level, and parents' credit card use, among other factors. Students' attitudes toward credit, the study found, are influenced by many factors, including exposure to credit use by parents, leading the authors to suggest that educational programs be targeted at student populations unlikely to have received financial education at home.

While credit card debt may mire a student, one hopes that would be temporary — and an experience that will serve them well, as long as the debt isn't crushing, says Marsha Cole, the executive director of the University of South Carolina's Alumni Association. "The students who show up to get it [the card] are the ones who aren't in trouble yet," she says. "It almost seems to me that getting into debt is a kind of a rite of passage." She says students arrive with an average of 1.5 credit cards, according to information she gathered about three years ago.

"It's not like they are getting their first credit card," she says. "I can't even imagine being an adult and not having a credit card. And they are not children, they are adults." Credit card issuer JPMorgan Chase solicits on campus, with incentives, with university approval of locations and times.

But with a foot in the adolescent and adult worlds, the student population is vulnerable. Elizabeth Schiltz, who teaches banking law at the University of St. Thomas School of Law in St. Paul, Minn., says the 18to 21-year-old population has been treated paternalistically in some cases, with their best interest in mind. Smoking and drinking are examples.

"This [credit cards] could be one of the areas society decides needs protection as well," Schiltz says. "Anybody selling to this segment knows it has a heavy debt load already." Shiltz says regulators already possess tools to make sure lenders understand they have special responsibilities toward this population. "The frustration on the part of consumer advocates is that they don't perceive regulators as sending strong messages to banks," she says. Voluntary agreements could play a role, she suggests. It's in the issuers' interest to keep students financially healthy and educated about credit. That's long term, though, not short term.

The Responsible Credit Partnership (RCP) of Chicago teamed up with credit card issuers in 2004 to test the effectiveness and cost of strategies. financial education Completion of online courses corresponded with but didn't necessarily cause more responsible credit card use. It's not clear whether students learned something from the course or if they were just predisposed to be responsible debtors.

Most card firms offer financial education of one kind or another, even if it's just a brochure in a credit card offer. Capital One's annual back-to-school survey found that 18 percent of parents discussed backto-school budgets, a decline from the 24 percent who did so last year.

Too bad, because parents turn out to be the best teachers, says Lyons, who has researched financial socialization of young adults. "Why are some better managers than others?" Turns out these kids had been taught to set aside Grandma's birthday money and decide whether they really could afford to buy the hot new computer game. **RF**

READINGS

Bucks, Brian K., Arthur B. Kennickell, and Kevin B. Moore. "Recent Changes in U.S. Family Finances: Evidence from the 2001 and 2004 Survey of Consumer Finances." Federal Reserve Bulletin, 2006.

Furletti, Mark. "Credit Card Pricing Developments and Their Disclosure." Federal Reserve Bank of Philadelphia Payment Cards Center Discussion Paper, January 2003.

Gartner, Kimberly, and Elizabeth Schiltz. "What's Your Score? Educating College Students About Credit Card Debt." *St. Louis University Public Law Review*, 2005, vol. 24, no. 2, pp. 401-432.

Gartner, Kimberly, and Richard Todd. "Effectiveness of Online 'Early Intervention' Financial Education for Credit Cardholders." Federal Reserve Community Affairs Research Conference, April 2005.

Manning, Robert D. *Credit Card Nation*. New York: Basic Books, 2000.

"Report to the Congress on Practices of the Consumer Credit Industry in Soliciting and Extending Credit and their Effects on Consumer Debt and Insolvency." Board of Governors of the Federal Reserve System, June 2006.

Staten, Michael E., and John Barron. "College Student Credit Card Usage." Credit Research Center Working Paper no. 65, June 2002.

Sullivan, Teresa, Elizabeth Warren, and Jay Westbrook. *The Fragile Middle Class*. New Haven: Yale University Press, 2000.



Economists have long recognized that possessing natural resources does not guarantee economic success. Nigeria, which has abundant oil and natural gas reserves, remains mired in poverty, while Hong Kong, which has virtually no natural resources, is one of the wealthiest places on earth. What's more puzzling is why certain policy distortions — ranging from price instability to high tax rates — often don't appear to affect growth as much as economic theory says they should.

Growth theory has come a long way. How much further can it go?

BY DOUG CAMPBELL

ouldn't it be great if there was a recipe for growth? Not personal growth, as in conquering one's fears of, say, public speaking. Economic growth is what we're talking about. It is hard to overstate the potential usefulness of a formula that governments could follow to ensure good health and riches for their citizens: Sift together two parts savings, three parts capital investment, and one heaping part of incentives for innovation. Bake for two generations and *voila*: a fully developed, fast-growing country.

As it happens, such a recipe exists. In fact, there are many different varieties. We will discuss all of these in more detail later, but in brief (and at the risk of oversimplifying), there are two main contenders. First is the "neoclassical theory of growth," in which economic output depends on quantities of capital mixed with labor force efficiency. Then we have the "new growth theory," in which continual technological innovation has been built into the model itself, instead of being treated as an "exogenous" factor largely outside anybody's control.

There is some disagreement over which one of these theories most closely describes the real world - or whether either comes close to doing so. Moreover, it's been 20 years since the last big advance in growth theory, with many recent contributions calling attention to its weaknesses.

This gives rise to the question: Is growth theory stunted? To be sure, you could ask the same about many topics in economics. But growth is probably the biggest economic question of them all: Why do some countries prosper while others stagnate? For many economists, finding an answer to that question is the main reason they became economists in the first place.

Flying Solow

A current economics textbook will tell you that growth is produced by reshuffling resources in ways that make those resources more valuable. Although it might seem intuitive that a nation with an abundance of natural resources, like oil, would prosper while those deficient in such resources would stagnate, this is not the case. Consider the small island of Japan, for example, whose growth rate in the past 50 years caught up with the natural resource-rich United States and whose citizens now are about as wealthy. By organizing resources ranging from physical to intellectual capital and combining them with some sort of capital investment, growth can happen in otherwise naturally inhospitable environments. The trick is to hit upon the right combination of resources, especially for developing countries whose economies can't seem to right themselves.

Growth theory began to take off around the mid-20th century. In his recent book, Knowledge and the Wealth of Nations, David Warsh describes how Robert Solow woke up the economics profession to a novel theory of growth. In two papers, 1956's "A Contribution to the Theory of Economic Growth," and its 1957 follow-up, "Technical Change and the Aggregate Production Function," Solow zeroed in on the notion that technical change, more so than capital investment or savings, was at the heart of economic growth. That is because technical change was found to be the key in increasing productivity; nothing else had that effect in the long run. "Here was the answer to



the question of why the economy kept climbing the mountain of diminishing returns," Warsh wrote. "It had relatively little to do with labor or capital accumulation. 'Technical progress ... was creating the new wealth.'"

At its simplest, the Solow model says that, yes, investments in capital and labor *can* spur growth. But these gains are transitory because of diminishing returns — the problem that, after awhile, productivity doesn't improve as much with the addition of, say, the same type of computer. The only thing that propels growth over the long haul is technological change — be it in creating a more powerful antibiotic or in building a smaller memory chip.

It was a useful theory. With the Solow model, one could pose questions and view the results. Should public policy provide incentives so that people save 2 percent more of their income each year? The model predicts what the long-range, overall impact of economic output would be from this policy prescription.

Soon enough, Solow's basic model was modified into a neoclassical theory. Among other tweaks, the most important extension from the Solow model was that savings moved to the inside; with Solow, savings — like technological change — had been treated as exogenous. (To economists, "exogenous" means a factor that is injected from a model's outside. By contrast, "endogenous" refers to variables that are determined from things happening inside the model.)

The exogenous nature of the Solow and neoclassical models remained their big flaw. By treating technological change as exogenous, the models say the very driver of economic growth is not an internal component in the model; it is something injected more or less arbitrarily from the outside. Though policy could affect the growth rate during the transition period, eventually policy is ineffective as nations reach their long-run (or steady state) growth rate. Additionally, the neoclassical model assumes that technological skill is the same in all countries, which obviously doesn't fit with the real-world experience.

Bennett McCallum, an economist at Carnegie Mellon University and a visiting scholar with the Richmond Fed, summed up the neoclassical model's failings in a 1996 paper: "It fails to explain even the most basic facts of actual growth behavior," McCallum wrote. "The model itself suggests either the same growth rate for all economies or, depending on one's interpretation, different values about which it has nothing to say."

Thus, in the neoclassical models, policy is impotent in influencing growth once nations reach their steady state. Likewise, the model's main components — capital and labor — didn't explain long-run growth either. It is all about randomly given technical change. As a guide for policymakers, its powers are limited.

So the largest hole remained the same: How do you encourage technological change? More precisely, how do you get technological change inside a growth model?

New Growth Theory

It wasn't until the mid-1980s, and more formally, 1990, that growth theory got its next big boost. First, there was the series of famous lectures by Robert Lucas, the Nobel Prizewinning economist who brought rational expectations theory into mainstream economics. In his lectures, later published as "On the Mechanics of Economic Development," Lucas refocused discussion on the importance of human capital accumulation in spurring growth. Then it was a former student of his, Paul Romer, now at Stanford University, who moved the debate forward. Romer is credited with pioneering what became known as endogenous growth theory, though many others have contributed. It is called the endogenous growth model because Romer succeeded in placing technological change on the model's inside.

The key to growth in the endogenous growth model is that it captures the "externalities" of investments in human capital. These are the byproducts of knowledge, where people not only get trained to use, say, a new computer, but also figure out a new, more efficient way to build a computer. These externalities may at first manifest themselves within individuals and their firms. But because ideas are "non-rival," or can be used by anybody, they eventually spill out into the wider economy.

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This research and development function — this factory for new ideas — is embedded in the new growth model. Ideas are both produced and consumed. This way, the problem of diminishing returns to capital investment is overcome. As defined in the new growth theory, capital investment is directed in large part to human capital, whose ideas have the power to keep economies growing through constant innovation.

Thus, in the endogenous growth model, policy matters because you can go about creating incentives for investments in human capital and research and development. This can be done via subsidies for education, tax rates, and, certainly, beefing up intellectual property rights.

When Romer's work came out, there were protests from many economists that they understood the importance of ideas and technical change all along. But what Romer and the new growth model made possible was a framework in which one could think about how policy affects longrun growth. In an interview, Romer says, "The history of economics shows us that formal mathematical models, rather than just verbal intuitions, sharpen our understanding and our thinking."

In a way, the basic new growth model that Romer built is like the part of the neoclassical model that happens when an economy is in transition, before it gets to the steady state. The transitional period just never ends. The beauty of the endogenous growth model is that, theoretically, it seems to replicate real-world experience: Different rates of saving and accompanying investments in capital can produce different incomes (or economic outputs). Additionally, these resulting different rates of income are unrelated to differences in returns to capital. That means that countries with low incomes wouldn't necessarily be those which would be expected to have higher growth rates, and hence, be more attractive to capital investments from foreigners - just as we see in the world.

Or is it? When economists have looked to the real world for support of both neoclassical and endogenous growth theory, they have often been disappointed.

Real-World Comparisons

One way economists figure out whether their models actually work is by taking them to the data and performing statistical regressions. They use growth rates as the dependent variable and regress them against, say, monetary policy. Then they look for robustness, or whether there is a strong relationship between growth and monetary policy across countries. Such testing on growth theory began shortly after the new class of models was introduced. Among the leading empirical researchers have been teams like Robert Barro and Xavier Sala-i-Martin.

The results haven't been as encouraging as was first hoped. Even in 2006, it is hard to find strong empirical evidence of long-run growth rates being affected by individual policies. For example: Growth theory would single out high-inflation countries as likely to experience slow growth. But cross-country regressions do not find a strong link between high inflation and lowered economic prosperity, despite the fairly intuitive connection and relative consensus among economists that policymakers ought to be trying to lower inflation in order to spur growth.

How can this be? Cross-country growth regressions suffer several inherent problems. Among them, the variables that economists must use to stand in for things like tax rates and political stability are often crude. This makes it difficult to identify which variables are most important for creating the right conditions for growth.

William Easterly, a former World Bank economist now at New York University, surveyed empirical growth studies, including many of his own, for a 2005 book chapter. These studies *have* found links between policy and growth, with the most widely studied policies, including fiscal policy, inflation, exchange rate management, and trade. But Easterly questions the strength of those links.

Tax rates have been the leading policy investigated, "yet the literature has generally failed to find a link between income or output taxes and economic growth," Easterly wrote. For example, studies in the 1990s seemed to show that tax rates were not associated with changes in growth rates. That is, countries with really high tax rates weren't necessarily growing any slower than countries with lower rates — precisely the opposite of what endogenous growth theory predicts.

To be sure, Easterly concludes that there is "some statistical association between national economic policies and growth," meaning that growth theory sometimes provides predictions in line with the data. But he adds that these associations are not very robust. To Easterly, this puzzle is attributable to the difference in trying to grow something and trying to destroy something. A nation's history and institutions are things that policy is largely powerless to overcome. "Countries that pursue destructive policies like high inflation, high blackmarket premium, chronically high budget deficits, and other signs of macroeconomic instability are plausible candidates to miss out on growth," he says. "However, it doesn't follow that one can create growth with relative macroeconomic stability."

Different economists have different views about how big of a problem is the mismatch between data and theory. Do such mismatches render growth theory useless? Rodolfo Manuelli, a University of Wisconsin economist who was one of the original modelers of new growth theory, grants that simple versions of the endogenous growth model aren't supported by the data. But he believes that has more to do with the "ad hoc" nature of empirical work and the scarcity of reliable data than any broad weakness in new growth theory.

Likewise, Manuelli (as others have pointed out as well) thinks that translating between the model and the real world is difficult. Where the model might predict market distortions that affect human capital accumulation can account for crosscountry differences in growth rates, it's not clear what those distortions are in the real world. Are they tax rates? Are they corrupt governments? "I don't think it's been established that the theory is a clear success," Manuelli says in an interview. "At the same time, I don't think that the existing empirical work shows that it's a failure."

Ross Levine, a Brown University economist, is one of growth literature's leading empirical researchers. His work finds a strong relationship between the depth of a nation's financial sector and its growth rate. But as far as ties between individual policies and growth go, the financial sector seems to be an exception. "It's not so much that policies don't matter," Levine says in an interview. "It's that policies tend to come as a group."

In this view, the underlying principle of endogenous growth theory still holds. Of course, high inflation is going to hurt growth. Empirical studies fail to single out inflation as the problem because inflation is probably just one of a host of related policy problems, from corrupt government to high government spending relative to output.

Moreover, a solid understanding of growth requires more than a simple observation of how some countries have done it. A case study of Taiwan might be useful in illustrating how a small country with relatively little in the way of natural resources has provided high standards of living for its citizens. But it's not clear how much Taiwan's success can tell us about the failures that many sub-Saharan African countries, for instance, have had in their quest for growth. The interaction of political forces across countries deeply complicates the search for identifying the relative importance of technology, savings, and institutions, among many other variables. Theory can help in that search, especially in understanding the recent experiences of developed nations like Taiwan. But modeling the highly distorted economies of less-developed nations is another matter.

Romer Redux

Although he no longer works on growth models, Paul Romer still closely follows the literature. The failure of some empirical studies to support endogenous growth theory doesn't bother him for a couple of reasons. First, it's important to distinguish between "growth" and "development." If one defines "growth" as applying to the rate of growth of the GDP per capital over time for already developed nations such as the United States or European nations, it is impossible to discount the importance of knowledge and ideas, Romer says. Granted, he says, for lesser-developed countries the debate is open, as the "development" literature is unclear about the importance of the ideas in helping lesser-developed countries close the gap with developed countries.

"In development theory, there's an open debate about how important thinking about ideas is for understanding the catch-up process," Romer says. "Why do some countries catch up and others do not? I think this is where people say the [endogenous] theory doesn't make sense."

The theory "doesn't make sense" in that for underdeveloped nations, creating incentives for nurturing new ideas must be viewed at the bottom of its priority list. More urgent would have to be creating political stability as well as political accountability, enforcement of property rights, and support for a free market. In the case of sub-Saharan nations of Africa, few would argue that it's a lack of ideas — rather than a lack of a wellfunctioning market system — that is holding back countries from catching up with the rest of the world.

On the other hand, Romer points to China as a more complicated case. In China, there is a fast-growing manufacturing economy, fueled by direct foreign investment. And yet the nation still lacks a fundamentally sound market economy. "There's no way to understand the Chinese experience without understanding their success in taking knowledge from the rest of the world and putting it to use in their borders," Romer says. "So theories of how ideas get transmitted and put to use are central to understanding the China case."

Above all, Romer is wary of rejecting endogenous growth theory out of hand based on the failure of empirical studies to validate all of its versions and all of its predictions. An example: Endogenous growth theory teaches that in a world where countries don't interact (don't trade with each other or communicate at all), the largest economies should grow fastest. A test of that assumption would find that it's not true. But the problem isn't so much the theory, Romer says, as the assumption that was used to test the theory. "That's not the same as saying that knowledge and ideas are unimportant in the process," he says. "It just means some of the particular functional forms that people have used to try to capture the effects of knowledge are wrong."

Refinements

Pierre Sarte, an economist at the Richmond Fed, has written several papers on growth theory. His most recent article aims to explain a certain case when endogenous growth theory and data seemingly contradict each other. It is a useful example of how the relationship between growth theory and empirical studies ought to be viewed with some skepticism.

The data seem to show that countries with higher average ratios of government spending, or average tax rates, to output are associated with higher growth rates. On its face, this finding is completely at odds with what endogenous growth models say should happen — that high tax burdens should trigger lower growth rates. Sarte and co-author Wenli Li noted first that because marginal tax rates are not easily observable, empirical studies substitute for these rates with tax shares in income (or the ratio of government spending to GDP). They attacked this problem by building a model that more closely resembled the real world. The authors used progressive tax rates (where most endogenous growth models have relied on flat rates) and "heterogeneous agents" (to represent people of different incomes).

Li and Sarte show that - because of a Laffer curve-type effect - some people have lowered incentives to accumulate human and physical capital in environments with highly distortionary tax codes. This in turn lowers their income, and thus may cause the overall tax shares in income to decrease. At the same time, an environment with a highly distortionary tax code is associated with lowered growth in the model. So the end result is that a distortionary tax code is associated with both lowered growth rates and lowered tax shares in income simultaneously. It follows that, when plotted together, the relationship between tax shares in income and growth in the model will appear to be positive, just as in the data. But the fact remains that this in no way implies that taxes don't have a distortionary effect.

The overarching conclusion Sarte draws is that using tax revenue as a share of output (the average tax rate) is a poor stand-in for the marginal tax rate. In other words, the empirical findings may be sending the wrong signals because they're not using the right measures. "What the paper points out more generally is to be careful about interpreting the data," Sarte says.

At the same time, Sarte sees a wider problem for growth theory. Taxes or other measures that economists typically use in empirical studies don't convey the breadth and depth of distortionary policies that are in fact at the heart of slow or negative growth rates in developing countries. Similarly, Sarte agrees with the likes of Easterly and Manuelli in seeing deficits in the ability of models to account for things like property rights or a corrupt legal system. "I find it very difficult to believe that highly distortionary policies have no effect on long-run growth prospects," Sarte says. "You don't see that in the data simply because it's very difficult to measure the relevant distortions."

The Verdict

So we return to the question: Is growth theory stunted? The apparent failure of empirical growth literature to validate theory doesn't bother economists like Manuelli, who see distinct roles for theory versus statistical regressions (as well as distinct cases where neoclassical theory works just fine, and others where endogenous growth models are more insightful). The most valuable contribution of pure theory is to answer "what if" policy questions that the data, being based on past policy, cannot address. By necessity, theory simplifies reality into a mathematical model. "We are sort of in an in-between region right now," Manuelli says. "My hunch is that, in some time, newer, better versions [of growth theory] will come closer to encompassing all the complexity of actual economies."

To Levine, there is likewise no need for alarm. Though empirical work hasn't found clear links between individual policies and growth, that may not be the point. He sees endogenous growth literature's focus on asking why countries choose groups of policies that don't lead to rapid growth.

Even if he's wrong about the precise direction of growth literature, Levine is confident that there will be another Solow and Romer-like innovation before long. "The question is too big and too central to economists," Levine says. "With the new growth theory, there were some new insight, there was a lot of new data and this confluence of ideas and data caused a lot of action in trying to examine the links between policy and growth. We learned a lot, and now people are starting to ask the question, 'Why would countries choose different types of policies that don't lead to growth?' Maybe that will lead us to the next step." RF

READINGS

Easterly, William. "National Policies and Economic Growth: A Reappraisal." In Aghion, Philippe, and Steve Durlauf (eds). *Handbook of Economic Growth, Volume 1A*. Amsterdam: North-Holland Publishing, 2006, pp. 1015-1059.

Levine, Ross, and Sara J. Zervos. "What We Have Learned About Policy and Growth from Cross-Country Regressions?" *American Economic Review*, May 1993, vol. 83, no. 2, pp. 426-430.

Li, Wenli, and Pierre-Daniel G. Sarte. "Progressive Taxation and Long-Run Growth." *American Economic Review*, December 2004, vol. 94, no. 5, pp. 1705-1716.

Lucas, Robert E. "On the Mechanics of Economic Development." *Journal of Monetary Economics*, July 1988, vol. 22., no. 1, pp. 3-42.

Mankiw, Gregory N. "The Growth of Nations." *Brookings Papers on Economic Activity*, 1995, no. 1, pp. 275-326.

McCallum, Bennett T. "Neoclassical vs. Endogenous Growth Analysis: An Overview." Federal Reserve Bank of Richmond *Economic Quarterly*, Fall 1996, vol. 82, no. 4, pp. 41-71.

Romer, Paul. "Endogenous Technological Change." *Journal of Political Economy*, Oct. 1990, vol. 98, no. 5, pp. S71-S102.

Solow, Robert M. "A Contribution to the Theory of Economic Growth." *Quarterly Journal of Economics*, February 1956, vol. 70, no. 1, pp. 65-94.

Warsh, David. *Knowledge and the Wealth of Nations*. New York: W.W. Norton & Co., 2006.



HE EXECUTIVES ROAM

Corporations have more options for locating their headquarters than ever before, benefiting smaller metropolitan areas

BY CHARLES GERENA

Extended Stay Hotel's headquarters in Spartanburg, S.C.

Spartanburg, S.C., has a downtown in transition. Some blocks resemble an old-fashioned Main Street, with two-story, brick buildings renovated for use by restaurateurs, retailers, and small business owners. Other blocks were cleared of their historic occupants years ago to make room for office buildings like the headquarters of Extended Stay Hotels.

Sculptures and manicured public spaces adorn the stately granite and brick exterior, making Extended Stay's four-story headquarters building look like it was plucked from a college campus. Inside, about 200 workers occupy two floors, while a law firm and an insurance underwriter occupy space on the other two floors.

For years the Extended Stay headquarters site was undeveloped. A 1970s-era plan to construct an office complex and shopping plaza was abandoned after the original developers couldn't secure financing. A 55,000square-foot building was completed in the mid-1980s and now houses a bank branch and a few other tenants. But nothing else happened on the rest of the site, later given the hopeful moniker "Opportunity Block," until George Dean Johnson Jr. made a major commitment to his hometown.

Johnson, co-founder and then-CEO of Extended Stay, announced in May 2001 that his company would relocate from Fort Lauderdale, Fla., to Spartanburg and build a \$13 million headquarters on Opportunity Block. The 117,000-square-foot building opened its doors two years later.

Spartanburg has been transitioning from being the "Hub City" for textiles and other industry since the 1950s. After several fits and starts, the city is finally beginning to turn the corner. It has what corporate executives want, from a low cost of living for employees to transportation links to bigger cities like Charlotte. In turn, office development like Extended Stay's headquarters has given Spartanburg another path to economic growth.

"Part of what we're doing now is overcoming the pessimism that was there," says Ed Memmott, Spartanburg's assistant city manager for the last nine years. "The pessimism was real. You could feel it."

Spartanburg is not the only city experiencing this sort of rebound. Small and midsized metropolitan areas throughout the Fifth District are reaching a point in their development where they can compete with the largest metros in the Northeast and Midwest for a headquarters. At the same time, the needs of corporations have changed to favor locations beyond their traditional big-city environs. That means the benefits of a headquarters are available to more communities than ever before corporate offices have strengthened the services sector of cities like Richmond and Charlotte, as well as diversified the economies of former manufacturing towns like Greensboro and Spartanburg.

The fiercer competition for corporate headquarters has prompted local and state governments to open up their goody bags of tax breaks, real estate subsidies, and other incentives that used to be reserved for recruiting and retaining manufacturers. For example, Boeing will get more than \$60 million in income and property tax credits over the next 20 years for relocating its headquarters from Seattle to Chicago in 2001.

But many observers question whether it was worth paying more than \$100,000 in incentives for each of the 400 employees Boeing has in Chicago. In fact, a corporate headquarters brings relatively well-paid jobs to a local economy, although not as many as it used to, as well as tangible and intangible economic benefits. But incentives aren't as important in reaping these benefits as supplying an educated labor force, transportation infrastructure, and other essential ingredients to support

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any type of economic activity, including a corporate headquarters.

How Boardrooms Benefit Main Street

Spartanburg leaders did a number of things to jumpstart development downtown. There were regulatory changes that enabled firms to get projects built quicker. A new city manager was hired who cultivated a stronger relationship with the local business community.

While these were certainly important factors, along with a renewed interest in downtowns nationwide, many credit George Johnson's investments in Spartanburg as being the most important catalyst. Besides Extended Stay's relocation, Johnson supported the construction of a four-story headquarters in 2001 for the 300 corporate workers at Advance America, a payday lender he co-founded. His development firm also demolished two vacant structures to make room for a three-story office building right on Main Street.

These projects have encouraged others to invest more than \$170 million in the city's downtown and create about 1,200 new jobs within the last three years. A 250-room Marriott hotel and a conference center were built in 2003, while a six-story headquarters was completed a year later for QS/I Data Systems and its 200-plus workers. White Oak Manor, a regional operator of retirement communities, moved its corporate offices into Johnson's building in 2003 and has about 50 employees there.

The influx of corporations has increased the city's revenue base — the headquarters for Extended Stay and Advance America boosted annual revenue in one property tax district from \$600,000 to more than \$1 million, according to Memmott. This is important because Spartanburg relies on property tax revenue, and many taxexempt organizations own land downtown. Also, restrictive annexation laws make it difficult for the city to expand its boundaries into areas of Spartanburg County where it provides municipal services. Corporate offices have also introduced more white-collar jobs into Spartanburg's traditionally blue-collar economy. Ralph Hilsman has witnessed this change since he moved there from Washington, D.C., in 1986 and started a marketing agency. "Either you owned the mill or worked in the mill," he recalls. Now, there are middle-class professionals in the employment mix.

A corporate headquarters employs executives and senior-level managers in addition to administrative and clerical staff. These workers earn more than most service and production laborers, bringing additional dollars into the local economy and fueling demand for products and services. Restaurants have opened around Morgan Square at the center of downtown Spartanburg, each hoping to snag some of the corporate workers who eat out for lunch.

A headquarters operation also spends money on legal, accounting, finance, and other high-level business services. While these dollars often go to national firms, some of them flow into local businesses, notes John Lombard, director of Old Dominion University's Williams Center for Real Estate and Economic Development. But Lombard and others say it is difficult to quantify this spending. "I'm not optimistic that headquarters have as dramatic an impact on the fiscal side as we'd like," he adds.

Spartanburg's growing corporate presence has created new business opportunities for Hilsman. Denny's and QS/I have hired his agency, The Creative Edge, for small projects. Still, Spartanburg's corporations see the need to go outside of the region for some business services, Hilsman says. Indeed, Extended Stay uses an advertising agency in New York and a public relations company in California, although it does hire local firms for printing and procurement services.

Giving Back

Another way corporations can impact a community is through their philanthropic and civic activities. In a survey of senior managers in charge of corporate community relations and investment, the Social Science Research Council found that 80 percent of corporations direct their single largest contribution to a nonprofit in their hometown. Furthermore, 77 percent of a company's charitable giving stays within the community.

Many of the survey respondents "spoke of the norms of 'giving back' to the communities in which they are embedded," commented the 2004 study's authors. "Another reason behind this would be the possibility of tax cuts and financial benefits tied to their respective metropolitan areas. Finally, corporations benefit from publicity and goodwill with the local community through donations or supporting nonprofits and schools in the area."

Examples of this community involvement abound in the Fifth District. Corporate leaders at Bank of America and Wachovia have poured millions of dollars into transforming their hometown of Charlotte, with contributions going to building mixedincome housing in First Ward — a formerly blighted neighborhood — as well as new office and retail space in the center of the city.

Local textile executives used to be the primary benefactors in Spartanburg, says Chris Steed, vice president of community impact at the United Way of the Piedmont. "When the bottom fell out of the textile industry, the entire community hurt. We had the need [for our services] increasing and less funding to support those services."

Steed says the corporations that have moved into Spartanburg over the last decade or so have had "an enormous impact." Advance America, Extended Stay, and Denny's hold United Way campaigns yearly, as well as contribute money to local charities and encourage employee volunteerism.

The nonmonetary contributions that corporations make are just as important. Mark Sweeney, a site selection consultant based in Greenville, S.C., says a headquarters brings proven leaders who want to get involved in the community. "Such leadership greatly influences the life of a community, as well as its future."

Of course, not all executives put a high priority on philanthropy and volunteerism. Or, they may decide to focus their efforts on communities where a majority of employees are located, and that may not necessarily be their base of operations.

A corporate headquarters can be relatively small compared to the company's overall work force. Operators of supermarkets, banks, restaurants, and hotels have most of their employees in the field, not at their headquarters. For example, only 2 percent of Extended Stay's 10,000 employees work at its corporate offices in Spartanburg.

In general, head offices have a smaller headcount than they used to. "Companies have gotten flatter and the headquarters operation has become leaner," notes Thomas Klier, a senior economist at the Federal Reserve Bank of Chicago. Instead of employing their own staff for legal, forecasting, and other administrative work, many corporations procure these services from outside firms.

Also, companies have become more global in scope, making it necessary for key decisionmakers to be dispersed in some cases. ODU's John Lombard gives the example of a holding company with strategic business units operating in different regions. Human resources and other corporate functions are divided among these business units, while only a small group of executives at the head office provides centralized management.

Globalization has not only resulted in a dispersal of corporate control. It has also created a more competitive business environment, fueling waves of mergers and acquisitions that have resulted in the consolidation of redundant headquarters operations. For example, the merger of First Union and Wachovia in 2001 resulted in Wachovia moving its corporate operations from Winston-Salem to Charlotte, First Union's hometown. Three years later, Wachovia's Charlotte headquarters absorbed workers from Birmingham, Ala., after the bank purchased SouthTrust.

In some cases, mergers and acquisitions have led to companies departing the largest metropolitan areas, the nation's traditional centers of business and industry. When CP&L Energy merged with Florida Progress in 2000, the latter power company relocated its corporate workers from the Tampa-St. Petersburg-Clearwater MSA, ranked 20th in population, to the Raleigh-Cary MSA, ranked 51st. Changes in what corporations need and what communities can provide have also contributed to this migration.

What a Chairman Wants

As America's industrialization accelerated during the latter half of the 19th century, a headquarters would be located where the company produced its widgets, which was typically where natural resources were abundant and water, rail, and/or road transportation were available. Thus, corporate America tended to congregate in major metropolitan areas in the Northeast and Midwest with a strong industrial base at their core.

Throughout the 20th century, the nation's economy diversified, new centers of economic activity developed, and populations migrated. Companies also grew in size and their operations became more widely scattered. Yet the top 50 metropolitan statistical areas (MSAs) by population continue to command the lion's share of large corporate headquarters.

For one thing, the largest metro areas offer the cache of being in the "big city." A prestigious address on Park Avenue can make a statement about a business' standing in the corporate world. It also raises its visibility in the marketplace.

Large metropolitan areas offer another advantage: economies of agglomeration. Related firms benefit from locating near each other because they can attract more suppliers to a market, share infrastructure, and exchange information more readily, among other things.

When corporations cluster in large metros, they gain access to multiple communication suppliers, a welldeveloped transportation system, and a broad network of business contacts. This is important for executives who depend on intelligence from employees in the field, customers, colleagues, and outside experts to effectively manage their organization. Also, corporations have easy access to lawyers, accountants, and other professionals who have congregated in large metros to be near their biggest clients and each other.

Having too many people living and working in one place has negative spillover effects, however, while smaller metropolitan areas have gained ground in creating a big-city backdrop for business. Lower communication and transportation costs have enabled a company to manage its operations from a broader array of locations. As a result, there has been a gradual diffusion of corporate headquarters from the largest metropolitan areas into growing midsized metros.

The Cost Advantage

A lower cost of living in smaller metropolitan areas enables corporate headquarters to lower their payroll expenses.



NOTES: Cost of Living is a composite index that reflects cost differentials for a professional or manager's standard of living. Taxes are excluded. Data for Raleigh and Greenville are for 2004. SOURCES: ACCRA; National Compensation Survey, Bureau of Labor Statistics



Having a more interconnected and global economy means that a company can move its headquarters "at the drop of a hat," Klier notes.

Research by Klier and

William Testa, the Chicago Fed's director of regional programs, found gradual shifts in the geographic distribution of large companies during the 1990s. The share of headquarters located in the five biggest MSAs shrank from 36 percent in 1990 to 33 percent in 2000, while the share of headquarters in the rest of the top 50 MSAs expanded from 51 percent to 54 percent.

"Among the 50 largest metropolitan areas, those with population between 1 million and 2 million [ranked 23 to 50], experienced the largest growth in both population and large company headquarters during the last decade," noted Klier and Testa in a 2002 journal article. This group of midsized metros experienced 45 percent growth in the number of headquarters compared to only 19 percent growth among the top five MSAs.

Studies of previous decades found a similar pattern of migration. "New York City has been losing share [of corporate headquarters] to other metros for over 30 years," Klier adds.

Some executives have looked for a new corporate home to cut costs, the same impetus that has been behind the relocation and consolidation of manufacturing, sales, and distribution facilities. "Headquarters are the last frontier for great operational savings," consultant Mark Sweeney explains.

Executives have relocated to midsized metropolitan areas where land, office space, and other expenses can be Philip Morris USA and R.H. Donnelley are recent examples of companies that have relocated their corporate beadquarters to the Fifth District. Philip Morris moved from New York City to suburban Richmond, while R.H. Donnelley moved from Purchase, N.Y., to Raleigh, N.C.



lower. Corry Oakes, former president and chief operating officer of Extended Stay, says reducing the company's operating costs was one motivation behind its relocation to Spartanburg.

"Fort Lauderdale is a great city ... There was nothing wrong with our experience there," Oakes recalls. "It was just an expensive place to operate." In Spartanburg, Extended Stay was able to construct a new building to meet its purposes in the middle of a downtown for less than what it was paying in rent and other expenses.

Furthermore, midsized metros usually have a comparatively low cost of living. Not only is this a selling point for corporate recruiters, but it also means workers require less money to maintain the same living standards as in a bigger metro.

Of course, companies must pay a competitive salary to attract the best managerial talent no matter where they are located. On the other hand, "there is a lot less competition for a quality work force" in Spartanburg, Oakes notes. "Turnover in Fort Lauderdale was a challenge, and there is a tremendous cost for turnover."

While corporate relocations are happening in the name of saving money, an August 2005 study found that they may not yield the intended result. Researchers at the University of South Carolina Upstate and Old Dominion University looked at return on assets, return on equity, and other measures of operating performance for 167 corporations that moved their corporate headquarters during the 1990s. They found no overall difference in these measures before and after a relocation.

"All of the talk about cost savings by moving from Manhattan to Richmond, I don't buy it," says Lombard, one of the study's authors. Moving to a smaller metropolitan area can yield initial savings in operational expenses. However, there are other costs that aren't considered because they are harder to quantify. "The reality suggests that the disruption to operations and the loss of intellectual capital, due to key individuals deciding not to relocate, perhaps overwhelms any cost savings."

There are other motives driving corporate relocations from big cities. Smaller metros score better on some quality-of-life factors — they generally have shorter daily commutes, less crime, and better schools.

Smaller metros also offer some of the cultural and recreational amenities that executives are accustomed to. Spartanburg boasts the Twichell Auditorium, known for its superior acoustics, and Spartanburg Memorial Auditorium, the largest theater in South Carolina with 3,400 seats. In 2007, a \$30 million cultural arts center is scheduled to open that will include museums and a 500-seat theater.

Finally, midsized metropolitan areas are maturing, reflecting the filling in of less dense areas in the United States. "The center of the population is shifting south and west, away from the Northeast," Chicago Fed economist Tom Klier describes. "At [some] point, you are large enough to be a player." Lombard agrees, noting that the talent required to fill executive positions is available in more metro regions than it was 10 or 20 years ago, thus reducing the cost of relocating a headquarters.

Service providers have been more likely to move their head office to follow the migrating population, Klier adds. "Where your customers are determines where you want the headquarters to be." Manufacturers have been slower to relocate their headquarters. They have spent years separating their management and production functions, the latter moving to places where labor and land are the most affordable.

Eventually, though, manufacturing executives have decided they need to be closer to their factories to keep an eye on them. Since the Southeast has been the destination for many new or relocated facilities, several manufacturers have followed in their footsteps. In 1997, Lorillard Tobacco Co. moved its headquarters from Manhattan to Greensboro, N.C., where it produces its cigarettes. Seven years later, Philip Morris USA also left the Big Apple and settled in Henrico County, Va., to be near its three plants and other facilities in the Richmond metro area.

Luring Corporate America

With more locations fitting the bill for corporate headquarters, economic development officials are working hard to distinguish their locales. They typically lay out an attractive spread of tax credits, direct grants, and relocation assistance.

Are such incentives necessary? According to site selection consultants, incentives usually don't play a pivotal role in the early stages of a company's search process. Richard Beard, a Greensboro-based developer who used to manage the local chamber's economic development efforts, says he dealt with "bottom fishers" who choose the location with the most lucrative inducements and take off when they expire. But they were the exception, not the rule.

Other factors that benefit a company's bottom line over the long run are more significant than the short-term boost of incentives. Especially at public companies with shareholders' interests at stake, there have to be sound business reasons for moving their headquarters.

Incentives matter only when the search for a headquarters narrows to a few locations that meet its needs, Beard asserts. "They are deal closers." When all other things are equal, "that's when incentives come into play."

Extended Stay Hotels received \$760,000 in cash incentives from the city of Spartanburg that helped offset \$9 million in relocation costs. Also, the city fast-tracked the construction permits for the headquarters and spent about \$6 million on a public garage that connects to the building via underground passageways, enabling workers to quickly escape South Carolina's hot and humid summers.

These incentives helped Extended Stay's executives decide on Spartanburg, says Corry Oakes, one of the company's top executives at the time of the relocation. But they were only one part of the equation.

Another factor was the close ties between the community and George Johnson, the company's chief executive at the time of the relocation. Johnson is a Spartanburg native, went to college in the city, got his start in real estate there, and opened his first Extended Stay location there. Even when he ran the company from Florida, he kept a home in Spartanburg and occasionally flew back for visits.

"It certainly didn't hurt that we knew something about the area and the quality of the work force," Oakes says. But Extended Stay didn't pick up and move solely based on that knowledge and Johnson's commitment to bettering Spartanburg. "There were economic reasons for the move."

How often does a chief executive have such a personal history with the community that a corporate headquarters is moving to? Mark Sweeney says it's hard to say. In any event, Sweeney and others believe that it is just one factor in the site selection process. "The chief executive of a firm has a lot to say about a new location, but it is hard to imagine many corporate headquarters going to a location primarily because the current CEO happens to like it or lived there before," he notes.

Indeed, personal connections and incentives aren't enough to counter the forces of economic change. Some turnover of corporate headquarters is inevitable in the years to come as markets evolve and the needs of corporations adjust accordingly.

Therefore, Klier believes, communities should foster the qualities that are attractive for corporations and nurture native startups that could become the corporate giants of the future. "There is no reason why a company has to stay in one location over its life cycle," he says. **RF**

READINGS

Boyle, M. Ross. "Corporate Headquarters as Economic Development Targets." *Economic Development Review*, Winter 1988, pp. 50-56.

Gregory, Richard, John R. Lombard, and Bruce Seifert. "Impact of Headquarters Relocation on the Operating Performance of the Firm." *Economic Development Quarterly*, August 2005, vol. 19, no. 3, pp. 260-270.

Holloway, Steven R., and James O. Wheeler. "Corporate Headquarters Relocation and Changes in Metropolitan Corporate Dominance, 1980-1987." *Economic Geography*, Jan. 1991, vol. 67, no. I, pp. 54-74. Katz, Jane. "Get Me Headquarters!" Federal Reserve Bank of Boston *Regional Review*, 4th Quarter 2002, pp. 9-19.

Klier, Thomas H., and William Testa. "Location Trends of Large Company Headquarters During the 1990s." Federal Reserve Bank of Chicago *Economic Perspectives*, 2nd Quarter 2002, vol. 26, no. 2, pp. 12-26.

Speizer, Irwin. "Home Office." *Business North Carolina*, May 2005, pp. 40-49.

Strauss-Kahn, Vanessa, and Xavier Vives. "Why and Where Do Headquarters Move?" INSEAD Working Paper 2005/32/EPS, April 2005.

INTERVIEW — Martin Baily

Editor's Note: This is an abbreviated version of RF's conversation with Martin Baily. For the full interview, go to our Web site: www.richmondfed.org/publications

Martin Baily's career has spanned a number of fields, from academia to government to business consulting. His research interests have been equally varied, resulting in important contributions to a variety of topics in macroeconomics.

A native of England, Baily has written recently about how Europe could reform its economy in a way that would yield faster economic growth while retaining many aspects of its generous social safety net. He has also investigated the link between information technology investment and productivity improvements, and the causes of increasing income inequality in the United States and abroad.

Baily has taught at the Massachusetts Institute of Technology, Yale University, and the University of Maryland; been a senior fellow at the Brookings Institution; and was a principal at McKinsey & Company's Global Institute. During the Clinton administration, he served as a member and then chairman of the Council of Economic Advisers (CEA). Since leaving the CEA in 2001, Baily has been a senior fellow at the Institute of International Economics in Washington, D.C., where Aaron Steelman interviewed him on Aug. 8, 2006.



RF: What are the principal reasons for the rise in wage inequality in the United States over the past 30 years? How important does skill-biased technical change figure into this story?

Baily: Most economists would argue that skill-biased technical change is the most important factor, and I agree with that. The liberalization of trade has had some effect as well. The trouble with attributing wage trends to technical change is that this is a residual explanation. The inference comes from looking at shifts in supply and demand curves, but to interpret those shifts, you need to look deeper.

One of the things that has happened is that wages used to be determined institutionally but that is much less true today. Unions were much more important than they are now. Corporations had fairly standard compensation schedules for their mid-level employees. And even at the upper levels, the salaries of a CEO or CFO were largely determined by historical patterns. Over the last 20 years, we have had a much more competitive economy, in all regards. This has led companies to change the way they determine compensation for their employees. Instead of setting wages by institutional means, companies are really fighting for talented people, and this has driven up their salaries quite dramatically. At the same time, the share of the population that is in manufacturing has declined, and even those who still work in that sector tend to command relatively lower wages. In today's economy, much of the returns from economic growth goes to people with special skills or higher levels of education.

RF: Recent data seem to show that the growth in wages at the very top of the distribution — say, the top I percent and above — is very sharp. Can the skillbiased technical change story explain that phenomenon or is there something else that has led to the spike at the very top?

Baily: It depends on how you define skill-biased technical change. The growth you have described certainly cannot be explained by returns to education, though that certainly plays a big role when you look at income growth across the population as a whole. Certain skills are valued very highly in today's economy, and the people who possess those skills are doing very well. I sit on the board of a small company and it is very difficult yet very important to find a really strong CEO and others in top management positions. We are in an extremely competitive environment, much more so than 20 years ago, and it has become essential to find the best people available.

RF: How does the pattern of wage inequality in Europe compare to that in the United States? Have some of continental Europe's social and labor policies had the effect of keeping the gap from widening as much as in the United States?

Baily: The wage distribution in Europe is much more compressed than it is in the United States. The one exception is the United Kingdom (UK), which looks more like the United States than the rest of Europe. The question is why? In continental Europe, wages are largely still set according to long-standing institutional agreements. Unions are much more important, and even in countries where the share of the work force that is unionized is fairly low, like France, it's still the case that union-determined wage scales are widely used. Also, in many countries you have either a relatively high minimum wage or you have social welfare programs, which means that people are not willing to work for the type of wages you see in other parts of the world, so that effectively creates a wage floor. And at the CEO level, you just don't have the type of open market that you do in the United States. All of this leads to a much more compressed distribution of wages.

Some of this is changing. There is a real concern that the European economy is not sufficiently dynamic. But the type of inequality that you see in the United States is viewed very unfavorably, so it's not clear whether, politically and socially, Europe will be willing to make significant changes to its labor market policies.

RF: Why do you think views toward egalitarianism in Europe differ so much from those in the United States?

Baily: Well, that is certainly one of the classic questions in social science and I don't claim to be an expert on the issue. But the tradition of the United States as an immigrant country where the immigrants from Europe, especially,

came to get away from the more structured societies in which they were born — that, I think, still has an important legacy. I grew up in England but I have been here a very long time, and during that period I have seen significant changes in the UK. In fact, it is now lumped together with the United States as part of a broader Anglo-Saxon political and economic culture. You now have the high-priced CEOs and lawyers in London like you do in New York and other financial centers in the United States. This is a big change. England was traditionally one of the most rigidly class-based cultures in Europe, but economic mobility has increased a lot, as companies have gone after the most skilled employees they can find regardless of their social backgrounds. So I don't think social mores are set in stone - they do evolve over time - but there are still significant differences between the United States and Europe.

There is an emerging literature among economists that looks at long-standing social institutions and beliefs and how they have affected economic development. It's a very interesting body of work. I don't agree with all of it, of course. I think some papers have been too ambitious in trying to explain a country's evolution based on a few specific traits or events. But there is no doubt that social and cultural factors affect institutions, which then affect economic performance.

RF: In *Transforming the European Economy* and other publications, you have argued that many countries need to enact a series of reforms if they wish to grow more quickly. Could you please talk about the type of reforms you have in mind? Which ones are most important? And which ones might be the most difficult to implement?

Baily: I have been involved with the McKinsey Global Institute, working on a number of studies in which we try to understand why there are differences in productivity across countries. The one thing that comes across most clearly is that competitive intensity — particularly being forced to compete against world best practices — drives industries to achieve higher rates of productivity. I don't want to present our results as saying we should get rid of all regulation because we don't say that. But it has often been the case that regulation gets co-opted by an industry in order to restrict competition, so you need to be careful about how regulations are implemented and whether they are achieving their desired end.

It's important to understand what we mean by competition. Simply having a lot of companies in a market does not mean that the market is particularly competitive. Instead, what you might have are fragmented industries that have not consolidated and not invested in the most modern technology or implemented other desirable changes. So you might have a lot of banks or retail stores, for instance, but they are not operating at best practice because you have not allowed the industry to evolve.

Where regulation has been changed in a way that encourages competition, though, you have seen a lot of success. For instance, if you look at the mobile phone industry in Germany and France — a relatively new industry that didn't have a long legacy of regulation — it has achieved very high rates of productivity, at times even higher than in the United States. We also did a recent study of Sweden that looked at which industries had been deregulated since Sweden joined the European Union in 1995 and were forced to face up to Europe-wide competition. We found that productivity growth generally has been very good. The one domestic industry that has not seen much improvement is construction, which is still subject to a great deal of regulation with very strong union rules.

So overall, the news is good. If you do the right things — not necessarily by abolishing regulation but by changing it in

a way that is competition-enhancing — then you will see productivity growth in Europe.

In addition to reforming business regulation, there is the question of Europe's social welfare policies. Here we see that opposition to change is pretty strong. Europeans would rather sacrifice some level of economic efficiency for greater protection against poverty and hardship. That's their choice. But you could provide those social protections in a way that is much more market-friendly. For instance, if you were to have wage insurance rather than permitting people to draw unemployment insurance for a long time, then you could encourage people to go and get another job rather than stay out of the labor market altogether. I'm sympathetic to someone who is 55 years old and is suddenly laid off from a well-paying job in the automobile industry, for instance. But you just can't function by having everyone on social welfare. It pushes up the tax burden too high and it blunts the incentive to work.

My co-author of *Transforming the European Economy* is Danish. The Danes have not implemented a perfect system but it does a reasonably good job of providing social support while also providing incentives for

people to find a job and go to work. They don't have the option of simply saying, "no thanks." That's a big difference between Denmark and Germany. Germany ostensibly has rules that are designed to get people back into the work force, but if you go to Germany and ask them how many people have been forced off the unemployment benefit rolls, the answer is not very many. So, in practice, it doesn't work very well. You also need more flexibility in Europe's labor market. We think that companies should be allowed to more easily implement layoff programs, with severance packages. The French system is horrendous, where the legal system gets involved almost every time a company wants to restructure.

RF: It seems that the transition to more liberal labor policies in the United Kingdom has, on balance, benefited the UK economy. But they were won under quite difficult circumstances. Do such reforms - in liberal democracies, at least - require almost a crisis to occur, such as the malaise that the UK economy found itself in during the late 1970s, in order to be implemented? Also, how important is it to have a

persistent and charismatic figure, such as Margaret Thatcher, leading the government?

Baily: In England there were so many entrenched interest groups and so much conflict in the labor market that having someone who was willing to be tough was helpful. But other countries have been able to enact reforms without a figure comparable to Mrs. Thatcher. Significant labor market reforms were enacted in the Netherlands, Sweden, and Denmark. Now it's true that those countries' economies were approaching crisis levels, with high unemployment and a lot of people on social support programs, which caused budget problems. Indeed, growing fiscal imbalances have probably been one of the main drivers of reforms in Europe. So I think it's often a mixture of having strong political leaders combined with declining economic performance that leads to reform.

My colleague Adam Posen is writing a book on Germany and he disagrees, arguing that it's actually easier to enact reform if the economy is doing well. When people have jobs and the economy is expanding, people are more will-

ing to tolerate changes that they might have otherwise found more painful. I understand that argument, but my own view is that the experiences from the UK and the Netherlands are strong counterexamples. The reforms those countries achieved were easier to make because their economies were in crisis and it was clear that something had to be done.

Martin Baily

Present Position

Senior Fellow, Institute for International Economics

Previous Faculty Appointments

Massachusetts Institute of Technology (1972-1973), Yale University (1973-1979), and the University of Maryland (1989-1996)

Government Experience

Member, Council of Economic Advisers (1994-1996); Chairman, Council of Economic Advisers (1999-2001)

Other Positions

Senior Fellow, Brookings Institution (1979-1989); Principal, McKinsey & Company's Global Institute (1996-1999)

Education

Ph.D., Massachusetts Institute of Technology (1972)

Selected Publications

Author or co-author of several papers in such journals as the *American Economic Review*, *Quarterly Journal of Economics*, *Journal of Political Economy*, and *Journal of Economics Perspectives*; co-author of *Growth with Equity: Economic Policymaking for the Next Century* (Brookings Institution, 1993) and *Transforming the European Economy* (Institute for International Economics, 2004) RF: What significance does the relatively low birth rate in some European countries have for social policy, especially programs aimed at helping the aged?

Baily: First, I would like to point out that the birth rate among females of European origin in the United States is relatively low as well, so there is a common pattern between the two regions. The overall U.S. birth rate figures are much higher than in Europe because many recent immigrant groups are boosting the rate. And, of course, immigration is itself boosting the U.S. population. What are the implications for Europe? The low birth rate means that a growing share of the population will be of retirement age and labor forces will be flat or declining. This could produce an unstable equilibri-

um. As the percentage of people receiving government retirement funds increases, that means increasing taxes on those who are still working, which could lead some people to leave the labor market. That's not a forecast — it's more of a warning parable.

So Europe has to look closely at this issue and the sooner you do something about it — by changing the incentives for people who are already working to stay in the labor force longer and those who are out of the labor force now to acquire jobs — the better off you will be. The shifting worker-retiree ratio is not tenable. It's going to be too costly to fund the public pension programs as well as the health care programs. The same is true, to some extent, in the United States, especially with health care.

RF: How important has investment in information technology (IT) products been to the surge in productivity that we have seen since the mid-1990s? And if IT was significant, why didn't we see productivity gains earlier? Companies were investing in IT throughout the post-1973 period, yet we saw relatively low rates of productivity growth for more than 20 years.

Baily: If you think that IT investment has been important to the growth in productivity, and I believe it has been, then the simple answer to your question is that the level of investment in IT was pretty small relative to the size of the overall economy during the early part of this period. Also, it took quite awhile for a lot of computer software to become user-friendly enough so that a broad range of employees could use it effectively. Plus, in the 1990s you had parallel development in communications technology, which made a lot of IT products more useful.

Looking at things more recently, we have seen a real slump in IT investment. Yet productivity continued to grow fairly rapidly. So the link between IT investment and the



rapid overall productivity growth that we witnessed earlier has subsequently broken down. What we have learned is that productivity depends on companies improving their business processes, and while IT can be an important facilitator of doing things more efficiently, it isn't always the case. A lot of investments in IT didn't pay off in the way that companies had hoped. For example, a lot of banks and hotels and other firms invested in Customer Relations Management (CRM) software. Many of them reported that it didn't result in a very large payoff.

There was a general feeling that you had to invest in IT, and people didn't really pay a lot of attention to the budget and where they could get the most bang for the buck. This led to some overinvestment. But companies now are

beginning to learn which investments were most effective and how to make best use of the products they have. We are seeing another period of learning-by-doing, in the post-2000 period.

RF: What do you think accounts for the extreme enthusiasm many investors had in the late 1990s for anything related to IT? Would you define that period as a "bubble"? And what was it like to be in a key policy advisory position as both the tech boom and decline occurred?

Baily: The very rapid rise in technology stocks was a bubble, and the overall stock market was also in a bubble, but less pronounced. The prices many companies' stocks were fetching could not be justified by their profits.

Was the overall U.S. economy in a bubble? Things were pretty good in a lot of ways over that period. There was low unemployment, inflation was falling, and incomes were rising. The private sector, of course, was the biggest reason for this prosperity. But on the policy side, I would give the Clinton administration credit for embracing change and being willing to stand up to interest groups that wanted to restrict trade and pursue other counterproductive interventions. You can certainly criticize particular measures, but on balance, it was a very good record. One of my colleagues said, "Bill Clinton baby-sat the U.S. economy into the 21st century." It was important that you had a president who was willing to embrace that type of transition.

Now, obviously, there were some concerns. The trade deficit was ballooning and the dollar was very high. I thought that if we balanced the federal budget, you could mitigate some of those problems, because even though private savings were down, public savings would go from negative to positive. We did balance the budget, but the effects on the trade deficit were not as significant as I thought they would be. This was very hard on the manufacturing sector. I don't think it was the main reason for what happened to manufacturing employment, but it was certainly a contributing factor. If you look at the numbers, manufacturing employment remained relatively strong through 2000. The downturn in the domestic economy generally was the biggest factor in the decline in manufacturing employment.

Six years later, we still have a huge trade deficit that will have to adjust eventually. A trade deficit at the current level is not sustainable over the long run. The adjustment will be somewhat painful for the United States, because we have been spending more than we have been producing. Just as it's more fun to run up a balance on your credit card than to work it off, the adjustment of the U.S. economy to a lower deficit and a lower level of foreign borrowing will be difficult. It will be somewhat painful for the rest of the world too, because they have become used to selling to the U.S. market, and they will have to get used to generating more domestic demand.

That said, Robert Lawrence and I have been doing some work on this, and we are more optimistic than many others. If the dollar does come down, so will the trade deficit - not the energy part, but the manufacturing and services parts. Exports will rise and imports will decline, meaning that over a period of several years, we will be able to achieve something close to a trade balance. So while I share some of the concerns of people like Nouriel Roubini, Ken Rogoff, and Bob Rubin that we could experience a very painful adjustment, I don't think that is the most likely outcome. There are too many countries with too big a stake in keeping the U.S. economy from stumbling badly, so there would be enough intervention to forestall a crash in the dollar. But we could certainly see higher interest rates, which could affect the housing market and a falling dollar could have some inflationary effects.

RF: In addition to the policies you have already mentioned, what do you think were the principal economic successes of the Clinton administration?

Baily: Balancing the budget was a bipartisan effort, to be sure, but I give the administration a large amount of credit for that. And they were able to do it while still making significant progress in improving the resources available to people without a lot of skills and education. Welfare reform was also a very big achievement. NAFTA was an achievement as was getting China into the WTO. So there are many things that I think the administration did that were good for the long-run health of the economy.

RF: In your opinion, how ought the United States handle reform of the Social Security and Medicare systems?

Baily: The problem with Social Security is not that severe. You could get it on track with some increases in the retirement age and perhaps some modest increases in taxation. The current gap is not that great. I would like to see people in the United States saving more. So I would like to see some sort of private accounts layered on top of Social Security. We have that in the form of 401(k) programs, but a lot of people don't participate. Many people simply don't realize the magnitude of resources they are going to need to retire. So I favor private accounts, not as a replacement to the existing system but as an addition.

The obstacle to that is: If it's compulsory, then it's viewed as taxation, and if it's not compulsory, then a lot of people will not participate. If you made the default option such that people were automatically included in the system, then participation rates would be pretty high and you wouldn't have the objection that you were imposing a new tax because people could opt out. The advantage of doing it through Social Security is that you would have the government collecting the money and then have it invested by professionals in the private sector. This would cut down on the cost of administering the program and it would also allow you to restrict the range of investment vehicles that people could choose. In general, I favor increasing consumer choice, but some people make bad choices with their retirement investments and there's a good case for eliminating some very high-risk options.

Turning to Medicare, I don't have a good answer. Ultimately, we have to institute some form of rationing of health care. I don't mean that in the way that many people perceive it. We ration all sorts of goods because we have to make choices about how we spend our money. When we get rid of that, by instituting a system of third-party payment, we are no longer operating in a real market system. So we have to decide what's going to be the effective "limit" — I think that it is probably a better and more accurate term than "ration."

Managed care is one approach to setting limits but it didn't really get the chance that it needed. I understand why people don't like it. They want short waiting times, they want to be able to choose the specialists they need, and so on. Managed care put limits on those choices — it limited health care that, at the margin, provided very little benefit for the cost. But patient opposition to the limits was mobilized through the courts and with regulations. Managed care providers relaxed the limits in response and health care costs started rising again.

The response today among employer-provided health insurance plans is to increase the amount of money that the individual patient has to pay, so that ability to pay becomes the limiting mechanism. I don't think that's the best solution because it reduces the level of insurance and means that some people will miss out on care that they need. But it is probably the mechanism that will be used to reduce the growth of Medicare spending also. A better way, if it could be achieved, is to to determine through research the treatment protocols that are the most cost-effective and then align the economic incentives for patients and providers to encourage the use of these protocols. RF: There was much anti-globalization talk in the United States in the late 1990s — the protests at the World Trade Organization (WTO) meetings in Seattle, for instance — but, overall, that sentiment has seemed to wane a bit. What do you think is the current state of public opinion toward globalization, and what effect might it have on public policy?

Baily: Globalization still is not very popular. It's not very popular in the United States, Europe, or the developing world. There's a legitimate reason for it — it brings change and can force people to acquire new skills and change jobs. That can be painful. People also exaggerate the effects of globalization. We talked earlier about skill-biased technical change. Even in a world without globalization, there would still be a lot of change in many industries. It is easier to blame globalization than technology or productivity growth. Also, the United States is such a large market that the level of competition you see in other parts of the world through globalization still occurs here from domestic companies alone.

I am a fan of globalization, which is good for the economy. Gary Hufbauer, my colleague here at the Institute, estimates that it contributes a trillion dollars a year to U.S. income. But it's important that we do a better job of helping the people here who do not have a lot of education and skills, either by having a better social safety net or by improving access to education and job training. I would like to see our economy made safer, in some sense, for globalization. And that would reduce anxiety and opposition toward it.

RF: What do you make of the current debate on immigration reform? How should the United States — and other rich countries — address this issue?

Baily: I favor immigration. As I have stated, I am an immigrant myself. But there is a concern that the current level of low-skilled immigration is putting downward pressure on the wages of low-skilled workers born in the United States. It would be desirable to reduce the pace of immigration in a way that limits the damage done to people at the bottom end of the income distribution. How you do that, though, can be very tricky and I can imagine reforms that would be counterproductive.

RF: Do you favor an increase in the minimum wage? Would expanding the Earned Income Tax Credit (EITC) be a more desirable way to help low-income Americans?

Baily: Looking at this from the standpoint of incentives, it's better to increase the EITC than the minimum wage because the EITC encourages employment. The concern about the minimum wage is that it can price some people out of the labor market. However, given its current level,

I would support a modest increase in the minimum wage. It's a blunt instrument but it helps a certain segment of the work force, as long as it is not raised too high.

RF: Many cities have tried to pitch themselves as high-tech centers to potential employers and citizens. Are policymakers in those cities overreaching? That is, can public policy be used to steer a local economy in that direction or must those changes occur more organically?

Baily: Generally, the importance of high tech has been exaggerated. It is important but many people look at it as much more of a savior than it can possibly be. There just aren't that many jobs in the high-tech sector, especially in the manufacturing of high-tech products.

On the broader issue of economic geography, there are a lot of examples of cities that have suffered large declines and were able to come back. So it's certainly not impossible. But in some cases, it's going to be very difficult to do that, and policies aimed toward that end often will be a waste of money. It's similar to the way we look at certain industries. Some are going to rise and decline over time and you ought not try to stop that process. The same is true with cities. It's a mistake to try to preserve every place in the form that it existed decades ago. To the extent that government can play a role here, it's in doing a good job of providing basic services, from public safety to education. Those things are going to be important to any city's well-being and ultimately will help economic development.

RF: How would you assess the role of the Council of Economic Advisers (CEA)? What influence does it have and which things can it do most effectively?

Baily: The role of the CEA has changed a lot over time. In the early 1960s, for instance, it had a lot of influence. There were some very big questions that the executive branch was grappling with — how to sustain economic growth and price stability while fighting an increasingly expensive war in Vietnam. Over time, that influence has waxed and waned. A lot of it has to do with the president. I served on the CEA under President Clinton and he was very intellectually curious. He was genuinely interested in policy debate, and I always felt that he closely considered the advice that we offered, whether or not he ultimately accepted it.

As for what the CEA can do best, a lot of that involves things that cannot be seen publicly. For instance, the CEA is often asked to assess proposals coming from Congress or other parts of the administration. Many of those proposals would have very bad consequences, and it's important for the CEA to frame those issues in a way that can help foster useful discussion among policymakers. So while the CEA can have a public face, much of its work takes place out of the public view. **RF**

ECONOMICHISTORY-

Branch by Branch

How North Carolina became a

banking giant

An 1848 \$10 bill from the Bank of Cape Fear, in Wilmington, N.C., one of the first state-chartered banks. In 1804, the North Carolina General Assembly chartered the first two banks in state history. One of them, the Bank of Cape Fear in Wilmington, made its own sort of history by simultaneously opening a branch office in Fayetteville. Though having a branch might not seem remarkable today, North Carolina's historically liberal policies toward branching are key to understanding the state's status now as a banking giant.

"Statewide branching ultimately gave our banks an advantage," says Joseph Smith, North Carolina's commissioner of banks. "It allowed our banks to get to a size and scale of having greater resources to compete. It gave our banks something of a head start in the mergers and acquisitions game, and it also promoted competition that served them well going across state lines."

North Carolina — the 11th-largest state by population — today is the second-largest banking state in the country. It is home to the headquarters of three of the top 10 U.S. banks ranked by assets. Bank of America, based in Charlotte, is the largest U.S. commercial bank and Charlotte-based Wachovia is No. 4. BB&T Corp. of Winston-Salem currently sits at No. 9. Those three banks alone give North Carolina a more than \$1 trillion lead over the third-largest banking state, California, though New York is still far and away the largest banking center.



To be sure, there were many forces at work besides branching that helped North Carolina banks get an edge over their out-of-state counterparts. Creative and aggressive managers such as the near-legendary Hugh McColl of NationsBank (now Bank of America) and Ed Crutchfield of First Union (now Wachovia) - pushed their organizations to grow. Also important were policies like allowing banks to get involved in a lot of nonbank activities, such as insurance brokering, of which BB&T is now a nationwide leader.

But branching set the tone in North Carolina, it is generally agreed. Without the experience from branching, no amount of management expertise could have produced the banking empire that now exists in the Tar Heel State. "They were competitive bankers, but they already had the size that allowed them to be the acquirers rather than the acquirees," explains Lissa Broome, a law professor at the University of North Carolina who directs the school's Center for Banking and Finance.

Rural Roots

North Carolina's original embrace of branching was not the result of a farsighted strategy to build banks of nationwide power. Rather, it was an immediate economic necessity. A predominantly rural state in the early 19th century, North Carolina allowed branching as a means to get banks into more communities than otherwise possible. "To get banking services in the Carolinas at all they had to tap capital from people in a number of different places," Broome says. Even though there were only three statechartered banks in North Carolina until the 1850s, each had multiple branches, allowing for close to statewide coverage.

While other states were placing restrictions on branching, fearful that big-city banks would drive out smaller banks and then operate in a noncompetitive fashion, North Carolina maintained liberal policies. This created a uniquely competitive banking environment in North Carolina, Broome says. Besides having the ability to set up branches, North Carolina banks had little restrictions in buying other state banks, giving them experience in integrating the operations of another bank and early on showing the economic efficiencies of putting together two banking organizations.

Beyond the fear that big banks would exercise monopoly power, why would states restrict branches? Thomas Hills, a retired bank executive who has studied North Carolina banking history, suggests several reasons. One is that for many years North Carolina had four large population centers evenly distributed around the state — Charlotte, Raleigh, Greensboro, and Asheville. This was in contrast to states like Georgia, with a single big city in Atlanta. "There was never the big city against the agrarian area dynamic," Hills says.

Meanwhile, North Carolina banks were amassing size and scale that out-of-state banks weren't close to approaching. The mid-20th century was a time of slow but steady growth in North Carolina banking. In 1950, not a single North Carolina bank was among the 50 largest banks in the country. By 1960, Wachovia had cracked that list. By 1980, North Carolina National Bank (NCNB) had vaulted over Wachovia and into the top 25 largest U.S. banks.

Branched Out

In 1975, North Carolina was one of just 16 states (plus the District of Columbia) that allowed statewide branching. (As it happened, Maryland, Virginia, and South Carolina also allowed some degree of statewide branching, with only West Virginia in the Fifth District keeping branch restrictions.) By 1992, all but one state — Iowa — had at the least significantly relaxed branching restrictions.

But for a time, North Carolina banks were in a relatively unique environment that taught them how to compete. Knowing that other banks could eye a good market and swoop in to steal share, North Carolina banks had strong incentives to keep costs low and innovate whenever possible. By the late 20th century, technological advances such as ATMs were making it even more sensible to pursue banking on a wider geographic scale. Moreover, bigger banks were in a better position to use those same technological advances and their accompanying cost savings to their advantage. In this way, technology provided something of a double benefit (one that smaller banks were less able to take advantage of) to the already-large banks in North Carolina.

John Medlin was chief executive of Wachovia in 1985 when a pivotal Supreme Court ruling was handed down. The court in June, in upholding a similar New England law, essentially upheld the lawfulness of the so-called "Southeastern Regional Banking Compact," an agreement between 10 Southern states, including North Carolina, South Carolina, Virginia, and Georgia, to allow banks from participating states to acquire each other.

"When it became possible to [cross state borders] in 1985, our banks were better prepared for that challenge," Medlin says. "Going up to Virginia for us was no farther from Winston-Salem than going to Asheville. This gave us an edge on banks in other states like in Virginia, where banks were confined to counties, and Florida."

The week after the Supreme Court ruling on the compact, Wachovia bought First Atlanta. Around that same time, First Union picked up Atlanta Bancorporation of Jacksonville, Fla. In 1986, NCNB which had used a loophole in 1982 to buy a trust company in Florida, which then allowed it to also buy banks in the state - acquired banks in South Carolina, Virginia, and Maryland. The race was on.

"All of us felt it was pretty clear that critical mass was important," Medlin says. "If you had a computer system serving 100,000 customers, it costs the same as if it were a million customers. You required economies of scale to be efficient and effective."

Interstate Banking Arrives

While banks in the Southeast compact zone could go about buying each other, federal and state laws still kept most cross-state purchases from happening. The Douglas Amendment to the federal Bank Holding Company Act of 1956 restricted bank holding companies from buying banks in other states. Not until Maine in 1978 eased restrictions on entry by out-of-state banks did the barriers begin to fall at the state level. At the federal level, it wasn't until the Riegle-Neal Act of 1994 that bank holding companies were allowed to acquire banks in any state. (The act's House sponsor was Stephen Neal of North Carolina, whose banks lobbied heavily in favor of the reform.)

Primed to grow, North Carolina banks were ready when the nationwide barriers to cross-state entry began to fall. In 1989, North Carolina was the sixth-largest banking state by assets. Hot on its heels were Massachusetts, Michigan, and New Jersey. By 2006, North Carolina was the No. 2 state in the nation ranked by bank assets. (New York has long held the top spot.)

Most of this leap in the ranking came by virtue of the activities of NationsBank and First Union. The most notable acquisitions for NationsBank came in 1991, with the purchase of Atlanta's C&S/Sovran Corp., then in 1998's merger with San Francisco-based BankAmerica. NationsBank took BankAmerica's name, but kept the headquarters in Charlotte. The most recent big acquisition was of Boston's FleetBoston Financial Corp. in 2004.

The big buys for First Union, meanwhile, came with pickups in 1996 of First Fidelity Bancorp of New Jersey, in 1997 of Signet Bancorp of Richmond, and in 1998 of CoreStates

North Carolina Banks Timeline

1805: The Bank of Cape Fear opens as one of North Carolina's first state-chartered banks. (The charter was granted in 1804.) Simultaneously, it opens a branch in Fayetteville.

1872: Branch and Hadley, the precursor to BB&T, opens in Wilson.

1874: Commercial National Bank, the precursor to NationsBank, opens in Charlotte.

1879: Wachovia National Bank opens in Winston (which later merged with the neighboring city of Salem).

1927: The Federal Reserve Bank of Richmond opens a branch office in Charlotte.

1956: The Douglas Amendment to the Bank Holding Company Act restricts ownership of banking subsidiaries by bank holding companies to only the state in which the holding companies are headquartered.

1958: Union National merges with First National Bank of Asheville, forming First Union.

1960: North Carolina National Bank (NCNB) is formed after successor to Commercial National buys Security National of Greensboro.

1975: Some states begin to permit statewide branching, something that North Carolina has allowed since 1804. In 1975, only 16 states allow statewide branching.

1989: North Carolina is the sixth-largest banking state in the United States, trailing California, Illinois, New York, Ohio, and Pennsylvania.

1991: NCNB acquires Atlanta's C&S/Sovran, and the new bank is called NationsBank.

1994: The Riegle-Neal Act allows bank holding companies to acquire banks in any state.

1998: NationsBank merges with BankAmerica, and the new company is called Bank of America. Headquarters of the merged bank is established in Charlotte.

2001: First Union acquires Wachovia, keeping the name Wachovia Corp.

2006: North Carolina is the second-largest banking state in the United States, trailing only New York and leading No. 3 California by more than \$1 trillion in assets.

Financial of Philadelphia, the last of which set a record with its \$17 billion price tag. Then in 2001, First Union bought cross-state rival Wachovia and kept its name.

During this period, Winston-Salem's BB&T, led by CEO John Allison, quietly emerged. Since 1989, BB&T bought 59 banks and thrifts. Most of those deals paled in size compared with the mega mergers of Bank of America and the new Wachovia. Nonetheless, BB&T today ranks as the ninth-largest bank holding company in the United States. It also added 80 insurance agencies and 30 nonbank financial companies, building on its experience in a state that allowed such forays into nonbanking activities.

By 2000, North Carolina was well established on the global map as a financial services powerhouse. In Charlotte, the headquarters of Bank of America and Wachovia reach 60 and 42 stories, respectively, defining the Queen City's skyline. More than 32,000 people are employed by those two banks in Charlotte alone.

Great Leaders or Great Laws?

When stories are told about North Carolina's ascension in the banking world, the names McColl and Crutchfield, Allison, and Medlin, among others, are raised. It was personal competition, one line of reasoning goes, that led McColl to top his rival Crutchfield with a taller skyscraper. This "great man" theory holds that it was the leaders of North Carolina's banks that drove them to greatness.

Thomas Hills, the retired First Atlanta-Wachovia executive, recently wrote a 160-page thesis on the topic of North Carolina's banking prowess and Georgia's relative weakness — for a graduate degree in history. (He now works as chief financial officer for the state of Georgia.) Hill thinks that both North Carolina's regulatory environment and its luck in getting some innovative chief executives were the key ingredients.

"They're both equally important," Hills says. "You had brilliant banking leaders in people like John Medlin in Wachovia, Tom Storrs and Hugh McColl at NCNB, and Ed Crutchfield at First Union. North Carolina banks were positioned legally and also from a management strength and a strategic planning standpoint to take advantage of those laws."

Medlin agrees with that assessment. The competitive environment in North Carolina, he says, "challenged management. We developed not necessarily smarter management but more experienced management. The competition between us made each of us better."

In 2006, it might seem that all regulatory barriers to intrastate banking have been removed. But that's not the case. Twenty-seven states, including North Carolina, still place limits on out-of-state banks from opening branches inside their boundaries (unless the out-of-state bank is from a state where North Carolina has a reciprocal agreement). For example, a South Carolina bank can't currently open a branch in North Carolina unless the South Carolina bank buys a North Carolina bank. For small banks in particular that throws up a high hurdle to growth because they usually lack the capital to make such purchases.

Smith, the North Carolina banking commissioner, believes such prohibitions unnecessarily harm some banks. "There's a whole economic market in western North Carolina, upcountry South Carolina, and the mountains of Georgia — that's one market," Smith says. "Protectionism holds back smallto medium-sized banks that could grow to their natural, optimal size."

In researching his thesis, Hills came to an interesting realization: Not a single, major bank with headquarters in the Southeast has been acquired by a bank from outside the Southeast. With regards to North Carolina, can that record possibly hold up?

On that question, Medlin is realistic. "I wouldn't postulate today what might happen 10 years from now. I would just note that there is a fairly substantial lead right now and banks in North Carolina are still growing." **RF**

-BOOKREVIEW Breaking Ground

IN OUR HANDS: A PLAN TO REPLACE THE WELFARE STATE BY CHARLES MURRAY

BY CHARLES MURRAY

WASHINGTON, D.C.: AMERICAN ENTERPRISE INSTITUTE, 2006, 214 PAGES

REVIEWED BY AARON STEELMAN

n 1984, Charles Murray published Losing Ground: American Social Policy, 1950-1980. He argued that the Great Society transfer programs had done more harm than good, and the biggest victims were their intended recipients. In his new book, In Our Hands: A Plan to Replace the Welfare State, Murray provides a plan to overhaul the system he critiqued so thoroughly.

His proposal is straightforward. First, eliminate all transfer programs, such as Social Security, Medicare, Medicaid, welfare, and so on. Second, issue every person age 21 and older an annual cash grant of \$10,000, a portion of which must be reimbursed if the person's earned income exceeds \$25,000. Third, increase the size of the grant over time to keep up with inflation.

Why would such a change be desirable? Murray offers two related arguments. First, the welfare state as it is now constructed is badly flawed. It "degrades the traditions of work, thrift, and neighborliness that enabled a society to work at the outset; then it spawns social and economic problems that it is powerless to solve." Second, people know better how to spend their money than the government does. This applies both to poor people, who have to make tough decisions every day about how to make ends meet, as well as middle-class workers, who on average would invest their grant in a way that would yield a larger nest egg for retirement than what is currently provided by the Social Security system.

The basic message is: Treat people like adults and they will act that way. Some will quibble with this argument, stating that the poor, in particular, have demonstrated that

they cannot make wise decisions and need their transfers directed toward essential items. Murray suggests that "some legal restrictions on how the recipient uses the grant could be introduced." But he argues that the plan would work the best with much less direction: "Here's the money. Use it as you see fit. Your life is in your hands."

If this sounds familiar, it's because economists have been making the argument for decades. In the 1960s, Milton Friedman proposed the Negative Income Tax (NIT), which, like Murray's plan, would have eliminated all other transfer programs. Instead, poor people would receive the cash difference between what they earn and the amount necessary to sustain a decent standard of living. The NIT was instituted as a pilot program in some states and cities in the 1970s with somewhat disappointing results. Part of the reason, Murray argues, was because it augmented existing transfer payments instead of replacing them. But, more fundamentally, "it demonstrated that a simple floor on income is a bad idea. There is no incentive to work at jobs that pay less than the floor, and the marginal tax rates on jobs that pay more than the floor are punishingly high."

Murray concedes that any transfer program will provide some disincentives for work but argues that his plan would do a better job than the current system or the NIT. There are two groups for whom work disincentives don't bother Murray: young men who are out of the labor force currently and women who now work but would rather return home. In the former case, he states that there is no downside because those people aren't working now, and in the latter case, "the reduction in work represents a positive net effect."

His concern, instead, is directed toward "people who might stop working because of the cash grant, not to pursue some other equally productive life course, but to loaf." Overall, he argues that "[m]ost of the reductions in work effort will involve fewer hours worked, not fewer people working." And those who choose not to work will be limited largely to college graduates who take time off before getting a permanent job or attending graduate school. His assumptions for believing that the disincentive effects would be relatively small are questionable, though. They would, as he suggests, need to be subjected to formal modeling before the plan could be adopted.

Which gets us to the question that many readers have probably asked: Could such a radical overhaul ever happen? Not today, but two factors will make it possible later this century, Murray argues. First, as the United States grows

> even wealthier, a consensus will arise that lack of money can't be the reason we still have pockets of poverty. Instead, it's because we are spending the money badly. Second is "the limited competence of government," which he thinks will also become consensus opinion.

> Such predictions are necessarily dicey and Murray would have been well-served to omit them to focus solely on the mechanics and merits of his plan, which, though flawed, would represent a significant improvement over the present system. It deserves a fair and open hearing. **RF**



DISTRICT ECONOMIC OVERVIEW

BY ANDREA HOLMES

Fifth District economic activity grew more slowly in the second quarter with a continued deceleration in housing activity combined with some downshifting in the manufacturing and retail sectors. Labor markets remained generally on track though, with solid job growth and a large influx of job seekers.

Housing Market Slows

Activity in District housing markets slowed further from April to June of this year. The National Association of Realtors reported that home sales during the quarter declined 1.4 percent. The slowdown was most pronounced in Washington, D.C., where real estate agents noted a deceleration in buyer traffic and resale volume and added that market inventory had tripled from year-earlier levels. The downshift in demand appears to have weighed on the pace of home price appreciation in many areas: Second-quarter District home prices rose only 6.8 percent in the period, the lowest quarterly growth rate in three years.

Manufacturing Output Dwindles Momentum in the Fifth District's manufacturing sector wound down

manufacturing sector wound down somewhat in the second quarter, after expanding briskly in the first Both service-producing and retail businesses noted that price pressures eased slightly from April to June.

three months of the year. Slower activity occurred in factory shipments, new orders, and capacity utilization. District manufacturers cut back on hours, though not employee numbers during the period. The length of the average workweek contracted sharply, but factory employment was little changed and wage growth maintained its solid pace of recent months.

Manufacturers reported that the prices of raw materials and finished goods grew more moderately from April to June, but contacts remained alert to increasing price pressures. Some respondents, such as a North Carolina plastics producer, planned to raise prices in coming months.

Services Revenues Robust

Activity at Fifth District services firms expanded at a healthy clip in the second quarter, with revenue growth

Economic Indicators				
	2nd Qtr. 2006	lst Qtr. 2006	Percent Change (Year Ago)	
Nonfarm Employment (000))			
Fifth District U.S.	13,636 135,128	13,579 134,722	1.9 1.4	
Real Personal Income (\$bil)				
Fifth District	911.1	906.2	3.2	
U.S.	9,496.9	9,434.3	3.8	
Building Permits (000)				
Fifth District U.S.	64.2 529.5	63.9 492.3	-7.9 -10.3	
Unemployment Rate (%)				
Fifth District U.S.	4.3% 4.6%	4.1% 4.7%		

picking up the pace and employment and wage growth rising steadily over the period. Also positive, financial services establishments in Richmond, Va., and Baltimore, Md., reported that business remained fundamentally strong, though they said that clients were exercising more caution as interest rates rose.

The latest news from District - retailers was less upbeat, however, with contacts reporting a deceleration in sales activity following strong growth early in the year. Big-ticket sales, in particular, declined sharply by midyear, with contacts at two large building supply stores attributing the drop-off to lower construction activity and higher energy prices. Fifth District contacts from both service-producing and retail businesses noted that price pressures eased slightly from April to June.

Labor Markets Steady

District labor markets remained generally strong outside of slower retail hiring. Compared to the first quarter, districtwide payrolls advanced at a 1.7 percent annual rate in the second quarter, outpacing the 1.2 percent rate nationwide. Demand for employees in the professional and business services sector was especially strong, as evidenced by a Raleigh, N.C., temporary employment contact who noted a shortage of workers with administrative and technical skills.

The District's unemployment rate inched up to 4.3 percent in the second quarter, as solid growth in jobs was more than matched by a sizeable increase in job seekers. Despite this imbalance, the District unemployment rate remained well below the 4.8 percent rate posted a year earlier. By state, the second-quarter jobless rate moved higher in all District jurisdictions except North Carolina, where the unemployment rate was unchanged. RF

Nonfarm Employment



Nonfarm Employment Metropolitan Aréas

Change From Prior Year First Quarter 1993 - Second Quarter 2006











Unemployment Rate Metropolitan Areas First Ouarter 1993 - Second Ouarter 2006



FRB—Richmond **Manufacturing Composite Index** First Quarter 1996 - Second Quarter 2006



Real Personal Income Change From Prior Year





Building Permits

Change From Prior Year First Quarter 1995 - Second Quarter 2006



House Prices

Change From Prior Year

First Quarter 2001 - Second Quarter 2006



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) Metropolitan area data, building permits, and house prices are not seasonally adjusted (nsa); all other series are seasonally adjusted.

For more information, contact Andrea Holmes at 804-697-8273 or e-mail Andrea.Holmes@rich.frb.org.

Unemployment rate: LAUS Program, Bureau of Labor Statistics, Ú.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: Office of Federal Housing Enterprise Oversight, http://www.ofheo.gov.

STATE ECONOMIC CONDITIONS

BY MATTHEW MARTIN

District of Columbia

Growth in the District of Columbia slowed in the second quarter, as employment growth was marginal and housing market activity slowed further. Payroll employment expanded less quickly, though growth over the past year was on par with the national pace. Real estate markets slowed as well, with declines in housing permit issuance, home sales, and the rate of price appreciation.



Labor market growth slowed in the second quarter with an anemic payroll growth rate of 0.2 percent. Job losses were posted in the District of Columbia's outsized professional and business services sector. However, both total and professional services employment growth remained healthy, with growth rates of 1.6 percent and 2.8 percent, respectively, compared to a year ago. Also notable was the decline in labor force growth compared to both the previous quarter and a year earlier. The 1.6 percent decline in the labor force in the second quarter was accompanied by an increase in the unemployment rate to 5.5 percent — 0.2 percent higher than the first quarter.

The investment environment brightened in the District of Columbia. Venture capital investment into D.C. continued to post solid growth in the second quarter, following strong growth in the first quarter. Second-quarter inflows totaled \$31.8 million, with nearly 16 percent of the funding slated for Internet-related companies. Expansion-stage firms were responsible for much of the midyear investment.

The District of Columbia's real estate market displayed a sharp deceleration in the second quarter. This was especially true of new residential permits, which had easily outpaced year-ago levels in the first quarter. More than 1,300 permits were issued in the first quarter, more than double the number a year earlier. By contrast, just 212 permits were issued in the second quarter, leaving cumulative permit levels in 2006 roughly on par with last year. Warmer weather early in the year likely played a role, leading to more construction activity early in the year. However, just nine permits were issued in July, suggesting that new housing starts got off to a weak start in the third quarter.

Activity in the existing housing market also weakened in the second quarter, with sales off 0.9 percent in the first quarter and 15.6 percent over the past year. In addition, the rate of home price appreciation dropped to just a 5.2 percent annual rate in the second quarter compared to 9.1 percent in the first quarter and 26.1 percent in the final quarter of 2005. Over the past year home prices have increased 15.9 percent, a solid pace, though less than the rate of the previous two years.

🔨 Maryland

By most measures, the Maryland economy continues to expand, with the state's housing market the only segment that is clearly contracting. After the rapid acceleration in the state's housing activity in recent years, the current slowdown appears to be a return to more typical levels of new home building and sales activity. Furthermore, cooling housing market activity has yet to have a perceptible impact on the rest of the economy. Employment growth in the state was solid into the second quarter, including an increase in construction employment.

Overall payroll employment was constrained by job losses in the manufacturing and trade, transportation and utilities sectors. Even so, overall employment grew 1.0 percent, led by solid gains in professional and business and education and health services. Meanwhile, the unemployment rate rose by 0.3 percent to 3.8 percent, though it remains well below the national figure. The increase in the unemployment rate is mostly due to the largest quarterly increase in the state's labor force since 1986.



MD Home Sales Growth vs House Price Growth

Most measures of business investment continue to suggest underlying strength in the Maryland economy. Venture capital inflows rebounded strongly in the second quarter. Investment totaled \$334 million, more than three times the amount recorded in the first quarter. Firms in the expansion stage received the most funding (49.6 percent), while startup firms received the bulk of the remainder (22.9 percent).

The housing market is one segment of the state economy that is clearly slowing. New home construction has decreased from the elevated pace of last year, and year-to-date permits issued fell 14.0 percent through the end of the second quarter. Price growth slowed to 9.6 percent in the second quarter, and though still robust by historical standards, is well below the 20.6 percent rate seen in the last quarter of 2005. Because of strong price appreciation in recent quarters, the increase over the past year is still elevated at 16.2 percent, though the 16.5 percent decline in home sales over the same period may weigh on home prices in the future.



North Carolina

Morth Carolina economy and in the state's housing market. Payroll employment growth in the state moderated somewhat in the second quarter compared to the first, but the rate still ranked among the highest in the District. Most measures of real estate activity increased in the second quarter, including existing home sales and the growth rate of home prices.

Labor market indicators were generally positive in the second quarter. Although the pace of job growth slowed half a percentage point to 1.9 percent, it was the second-fastest rate of increase among the District's six jurisdictions. Job growth accelerated among professional service establishments, remained steady for financial services, and declined among retailers. Manufacturing jobs declined at a 1.1 percent annual rate, nearly matching the first quarter's pace. Results from the household survey were more upbeat, with stronger growth in employment offset by equally stronger labor force growth, leaving the quarterly average unemployment rate unchanged compared to the first quarter.

Venture capital investment activity was also positive in the second quarter. Nineteen North Carolina firms received venture capital inflows in the second quarter, with investment totaling \$150.5 million, up \$32.3 million from a quarter earlier. Of this total, more than half went to Internet-related companies, with expansion- and later-stage firms garnering the bulk of the funding.

The state's housing market showed few indications of slowing in the second quarter. Existing home sales were up 11 percent compared to a year earlier, though they were slightly



lower than in the first quarter. However, second-quarter home prices were 9.3 percent ahead of a year ago and exhibited growth above that of the first quarter. The number of permits issued in the second quarter was the only housing measure that fell short of last year's. However, warmer weather early in the year boosted the first-quarter figure; the total number of permits issued so far this year is 6.4 percent higher than the same period in 2005, providing little evidence of a general slowing of housing markets in the state.



E conomic conditions in South Carolina improved in the second quarter, due in part to improvement in the state's manufacturing employment picture. Unemployment in South Carolina is more than a full percentage point higher than the national rate, however, the state is still recovering from manufacturing's retrenchment over the last few years and the recent upticks are encouraging. Although signs of a modest cooling in parts of the state remain, existing home sales were higher in the second quarter than a year earlier and annual home price growth was nearly on par with recent quarters.

Total payroll employment in the state increased at a 3.4 percent annual rate in the second quarter, a bit below the first-quarter pace. The 3.2 percent gain in manufacturing employment was the first quarterly increase for that sector in two years and reflected better overall conditions in the state's manufacturing sector. The state's labor force also expanded at a 3.4 percent rate in the second quarter, driving the state's unemployment rate up 0.2 percent to 6.6 percent.

The investment environment improved in the second quarter. Venture capital inflows to South Carolina firms were flat in the second quarter, but this followed a solid \$9.7 million gain in the first quarter. The first-quarter gain marked the largest quarterly investment recorded since late 2004



and was more than triple the investment in 2005.

The housing market shows some signs of slowing across the state, though the deceleration was not as prominent as seen elsewhere across the District and the nation. Permit issuance fell in the second quarter compared to a year earlier, though cumulative permits through July remained 2.9 percent higher than last year. Home price growth eased slightly in the second quarter. However, South Carolina was one of just two jurisdictions in the District where sales of existing homes increased in the second quarter compared to a year earlier. Sales were up 8.9 percent in the second quarter compared to a year earlier, matching the year-over-year change in prices for the same.



Virginia

S teady job growth and a decrease in housing activity were the hallmarks of Virginia's economy in the second quarter. Persistent job creation, aided by significant construction and government hiring, kept the Virginia economy on track during the period though softness in housing markets became more apparent. Despite the dip in housing construction, strong construction payroll growth in commercial construction activity more than offset slowing residential construction employment.

Payroll employment increased at a modestly faster rate in the second quarter, rising 0.4 percent to 1.5 percent. About one-third of the jobs created were in the government sector, while growth in the construction sector continued as a pickup in commercial construction outweighed a slowdown in housing construction. By contrast, job growth in professional and business services remained well below I percent. Manufacturing employment expanded for the second quarter in a row and at a rate of a full percentage point higher than the overall rate of increase for payrolls. The unemployment rate inched 0.1 percent higher in the second quarter despite an additional 19,000 jobs reported in the household survey. The labor force expanded by 24,000, however, surpassing 4 million for the first time in the history of the survey.

Venture capital investment at Virginia firms totaled \$88.4 million in the second quarter, outpacing the \$56.2 million inflow recorded in the first quarter. Of this, more than half was slated for Internet-related companies, with expansionstage firms capturing the most funding and companies in the startup and later stages receiving most of the remainder.

Most measures of housing activity continued to show declines in the second quarter. Year-to-date housing permit issuance fell 15.9 percent in the second quarter, the largest decline among District states and considerably faster than the 1.0 percent decline in the first quarter. Not surprisingly, home price growth is slowing across the state, from last year's better than 25 percent pace at an annual rate to 8.3 percent in the second quarter. Home sales fell 23.9 percent over the period – the fastest rate of decline in the District – and the slower pace of sales will likely weigh on future home price appreciation.



• West Virginia

Recent data indicate that the West Virginia economy grew at a healthy pace during the first half of 2006. Payroll employment in the state expanded at roughly the same rate as the national economy, with mining and construction job gains providing the bulk of the growth. A sizeable increase in the state's unemployment rate relative to the first quarter was less troubling than it may appear, given that it occurred on the heels of an outsized decline in the unemployment rate in the first quarter. The state's housing market slowed in the second quarter, though by less than in other District states.



Payroll employment growth in West Virginia accelerated from a standstill in the first guarter to 1.4 percent in the second quarter, despite job losses in the manufacturing, professional and business services and government sectors. Mining, construction and leisure and hospitality employment accounted for the majority of the quarterly job gains. The state's unemployment rate rose 0.7 percent to 4.6 percent, though the increase reflected an unusually large jump in first quarter household employment that was offset in the second quarter. At 4.6 percent, the unemployment rate remains below the 4.9 percent level recorded at the beginning of 2006, suggesting general improvement in the labor markets.

Business conditions in the state remain upbeat for the most part, though venture capital funding remains elusive. One West Virginia expansion-stage company in the e-commerce goods, services, and content industry received an investment in the second quarter, totaling \$0.5 million. The midyear inflow followed flat investment in the first quarter of 2006 and outpaced year-ago activity when investment was flat.

Housing markets showed signs of slowing, despite a modest rise in existing home sales in the second quarter. However, comparisons to a year earlier were less favorable, with sales down 13.3 percent. Softer sales over the past year have contributed to a stall in existing home prices, which rose just 0.6 percent at an annual rate in the second quarter, limiting the pace of growth over the last year to 7.4 percent. While this rate is higher that long-term averages for the state, it remains substantially lower than the peak rate of nearly 12 percent seen last year.

Andrea Holmes contributed to this article.

Correction: In the Summer 2006 issue, we stated that Baltimore City posted a 3.9 percent jobless rate during the first quarter of 2006. That figure described Baltimore County's unemployment rate instead. Baltimore City's unemployment rate was 6.4 percent.

Behind the Numbers: Seasonally Adjusted

Much of the employment data that appear every quarter in this magazine are seasonally adjusted. That means the figures have been fine-tuned to account for events that follow a predictable pattern year after year. Economists rely on seasonally adjusted data to explain underlying strength or weakness in the economy that might not otherwise be apparent.

Seasonal patterns are a major factor in influencing short-term swings in the data. Seasonality is particularly important when looking at certain employment sectors. For example: Employment in leisure and hospitality tends to increase sharply in the summer months, then drops as we move into September. In North Carolina, unadjusted figures show leisure and hospitality employment growing from about 341,000 workers in January to almost 380,000 in June. But a month-to-month comparison of these unadjusted numbers isn't particularly useful because they don't tell us anything about the fundamental strength of the activity, or at what point a particular industry might be in the business cycle.

The Bureau of Labor Statistics takes the unadjusted numbers and plugs them into a model that aims to account for the longer-term trend and expected seasonal fluctuations. In the case of the leisure and hospitality sector, the seasonal adjustment model predicts that employment rises in the summer months. Then, it compares the expected change to the actual change. The resulting seasonally adjusted data will show an increase if the unadjusted numbers exceed the expected ones. So while the April, May, and June 2006 trend in unadjusted leisure and hospitality employment in North Carolina looks sharply positive, the seasonally adjusted trend looks much flatter - an insight that the unadjusted figures wouldn't provide.

Statistical agencies don't adjust every dataset. This is why they are not published for metropolitan area data, building permits, and house prices. In viewing adjusted data, analysts hope to gain a clearer picture of the business cycle and not get fooled by annual events that won't play a long-term role. - DOUG CAMPBELL



Leisure and Hospitality Employment in North Carolina, June 2005 - June 2006

State Data, Q2:06 -

Nonfarm Employment (000) 691.1 2,582.1 3,980.0 1,905.1 3,724.2 Q/Q Percent Change 0.2 1.0 1.9 3.4 1.5 Y/Y Percent Change 1.6 1.2 2.1 2.7 1.8 Manufacturing Employment (000) 2.1 138.2 561.2 260.2 298.1	753.8 1.4
Y/Y Percent Change 1.6 1.2 2.1 2.7 1.8	1.4
Manufacturing Employment (000) 2.1 138.2 561.2 260.2 298.1	1.0
	61.4
Q/Q Percent Change 13.5 -1.3 -1.2 3.2 3.3	-0.6
Y/Y Percent Change -3.0 -1.9 -1.0 -1.4 0.3	-1.3
Professional/Business Services Employment (000) 151.5 390.6 452.5 208.6 620.5	58.8
Q/Q Percent Change -1.6 2.1 2.0 14.8 0.5	-4.4
Y/Y Percent Change 2.8 1.9 2.8 2.9 3.1	0.2
Government Employment (000) 231.8 468.5 680.9 333.9 669.6	143.3
Q/Q Percent Change 0.6 0.7 4.0 0.4 3.0	-2.1
Y/Y Percent Change -0.8 1.1 2.7 2.3 1.1	-0.1
Civilian Labor Force (000) 292.3 2,992.3 4,397.9 2,121.2 4,001.1	815.0
Q/Q Percent Change -1.6 2.8 2.4 3.4 2.5	3.1
Y/Y Percent Change -1.3 2.1 1.9 2.5 1.8	2.1
Unemployment Rate (%) 5.5 3.8 4.5 6.6 3.1	4.6
Q1:06 5.3 3.5 4.5 6.4 3.0	3.9
Q2:05 6.6 4.2 5.3 6.6 3.5	4.9
Personal Income (\$bil) 28.6 217.4 248.2 111.3 261.9	43.7
Q/Q Percent Change 2.1 2.5 1.7 2.2 2.3	2.7
Y/Y Percent Change 3.0 3.5 3.0 3.5 2.9	3.0
Building Permits 212 8,695 27,736 13,234 13,119	1,248
Q/Q Percent Change -99.9 264.9 19.7 -30.1 -18.5	-48.3
Y/Y Percent Change -76.7 -3.3 3.7 -5.8 -24.9	-19.2
House Price Index (1980=100) 634.9 522.1 321.5 305.0 460.3	227.0
Q/Q Percent Change 5.2 9.6 7.9 6.9 8.3	0.6
Y/Y Percent Change 15.9 16.2 9.3 8.9 14.2	7.4
Sales of Existing Housing Units (000) 10.8 116.2 230.4 122.5 144.0	35.7
Q/Q Percent Change -0.9 -8.0 -0.5 11.0 -6.8	1.7
Y/Y Percent Change -15.6 -16.5 11.0 9.0 -23.9	-13.3

NOTES: Nonfarm Payroll Employment, thousands of jobs, seasonally adjusted (SA) except in MSA's; 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, Unemployment Rate, percent, SA except in MSA's; BLS/Haver Analytics, number of permits, NSA; U.S. Census Bureau/Haver Analytics, Sales of Existing Housing Units, thousands of units, SA; National Association of Realtors*

	Washington, DC MSA	Baltimore, MD MSA	Charlotte, NC MSA
Nonfarm Employment (000)	2,993.5	1,305.5	808.7
Q/Q Percent Change	7.9	9.0	4.4
Y/Y Percent Change	2.5	1.5	2.1
Unemployment Rate (%)	3.0	4.0	4.5
Q1:06	3.0	4.0	4.7
Q2:05	3.5	4.4	5.2
Building Permits	7,739	2,268	6,760
Q/Q Percent Change	-37.1	-17.1	46.2
Y/Y Percent Change	-33.9	-13.9	16.5

Metropolitan Area Data, Q2:06

	Raleigh, NC MSA	Charleston, SC MSA	Columbia, SC MSA
Nonfarm Employment (000)	277.4	292.8	361.8
Q/Q Percent Change	4.7	10.4	3.0
Y/Y Percent Change	2.9	4.3	3.3
Unemployment Rate (%)	3.7	5.1	5.6
Q1:06	3.8	5.2	5.6
Q2:05	4.3	5.1	5.5
Building Permits	1,125	2,264	2,029
Q/Q Percent Change	-17.1	-39.4	-5.3
Y/Y Percent Change	-8.3	-11.5	-2.8

	Norfolk, VA MSA	Richmond, VA MSA	Charleston, WV MSA
Nonfarm Employment (000)	779.9	626.0	151.1
Q/Q Percent Change	12.1	5.1	9.5
Y/Y Percent Change	1.7	1.2	1.3
Unemployment Rate (%)	3.5	3.2	4.4
Q1:06	3.7	3.4	4.6
Q2:05	4.1	3.7	5.0
Building Permits	1,951	2,447	87
Q/Q Percent Change	-49.1	24.0	15.1
Y/Y Percent Change	-23.8	0.4	-28.7

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OPINION A Penny's Worth

BY RAYMOND E. OWENS

he penny is under attack. Soaring prices of metals have pushed the cost of producing a penny above 1 cent. The U.S. Mint recently estimated that it could soon cost as much as 1.23 cents to produce a penny. (Today's pennies are mostly made up of zinc; it hasn't been since 1837 that they were pure copper.) Right now, the Mint says that it makes a profit on the coins, which the Federal Reserve pays face value for to distribute. But with escalating metal prices, by some estimates the government could lose \$20 million a year on the production of pennies alone.

The inference in the popular media has been that pennies are now a losing proposition for our nation. That may be, but not necessarily for the reasons most often discussed in the articles.

The "cost exceeds value" argument seems plausible at first glance. After all, if it costs more to produce a good than the good can be sold for, no private individual or firm

in their right mind would engage in that business. But the penny situation is different.

The penny is produced by the government, not the private market. The United States mints pennies (and other coin and currency) because it knows that money makes the exchanging of goods and services easier. This means that we don't have to go to the considerable trouble of trading between ourselves or bartering, for example, freeing up a lot of time for work and

leisure. The more precisely that coins and currency allow us to determine prices, the more effective is money in freeing up our time.

Consider if we had just \$100 bills. Something worth far less than \$100 - a haircut, for example - would still require some bartering to make up the difference. Or you may decide to do without or overpay. In either case, the outcome is more time-consuming, less satisfying, or more costly than if \$1 bills were available.

The value of currency is not determined by its nominal value alone. It also depends crucially on the transaction costs that are saved by having a particular denomination. Thus, the value of a penny is its role in allowing you to determine prices to the penny rather than, say, to the nearest nickel. If you were at a street corner with one gas station charging \$2.52 a gallon and the other \$2.55, where would you fill up your tank? Now, if a single penny can be used in thousands of transactions, the added value per transaction can be quite small, but the value of the penny

relatively large. Taking this perspective, whether it costs a little more than a penny to produce a penny may not be so terribly important (though if there is a penny alternative that is less costly, that would be a little better).

This does not suggest that pennies play as important a role in daily transactions as they always have, however. I see pennies lying on the ground nearly every day. People simply don't place much value in picking them up. If they are like me, they probably have more than enough lying around their house anyway. In addition, pennies cause inefficiencies in the form of lost time when people fumble for them at cash registers.

On the other hand, it may be worth noting that the penny remains the most widely used denomination in circulation. In fact, the government mints more pennies than any other coin - 7.7 billion last year, compared with about 3 billion quarters. Apparently, the demand endures.

The value of currency depends crucially on the transaction costs that are saved by having a particular denomination.

The casual attitude toward pennies probably reflects price inflation over time. The prices of most goods and services are well above the 1 cent level and few people probably care whether most prices are calculated to the nearest nickel. (Though they certainly might notice if pennies were suddenly pulled from circulation.) That is, when prices rise, a penny represents a smaller fraction of the price of a typical good, so the gains from calculating prices to the penny erode.

Thus, the popularity of the penny likely wanes not because of its high cost of production but because of its declining ability to make us much better off. Inflation has a long history of making some coins (and even some larger denominations) meaningless. After all, when was the last time you saw a halfpenny? (Hint: The Mint stopped making them in 1857.) Another factor behind the penny's declining popularity is the increased use of electronic payment technology, which has made our life easier while reducing demand for physical currency.

The bottom line is that the future of the penny may continue to be debated. But within limits, the cost of producing a penny (or a nickel or a quarter) shouldn't be the decisive factor in deciding the penny's future. The real key is how much time and effort it can save us relative to the actual cost of production. RF

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NextIssue

Expensing Stock Options

Starting this year, publicly traded companies are required to subtract the cost of employee stock options from profits. It's something most firms have been reluctant to do because of the potential negative effect on reported earnings. Understanding the issue of expensing stock options involves some accounting, but the most important questions concern economics. For instance, there is some evidence that the market already accurately values employee stock options, so why the controversy over counting them as an expense?

Unbanked Immigrants

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Telecommuting

More firms are offering employees the option to work from home, but telecommuters still comprise a small percentage of the total U.S. work force. Why has adoption of telecommuting not lived up to expectations? Our analysis finds that while telecommuting offers significant potential benefits, there are costs and other considerations that limit its value to only certain kinds of employers and employees.

Opting in for Retirement Plans

Traditional economic theory has difficulty explaining why many employees don't enroll in their companies' 401(k) plans. But "behavioral economics" may shed some light on this seemingly irrational behavior — and why shifting the default from nonenrollment to automatic enrollment could dramatically change participation rates.

Interview

We talk with Robert Fogel, economic historian and co-winner of the 1993 Nobel Prize in economics.

Economic History

Baltimore's Roland Park Shopping Center and Raleigh's Cameron Village illustrate how changes in retail reflected the suburbanization of the United States.

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