THE REGIONAL ECONOMIST
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Hard-to-Get Oil
Stuck in a Rock *and* a Hard Place

Multinationals
More Such Companies Hail from Emerging Economies

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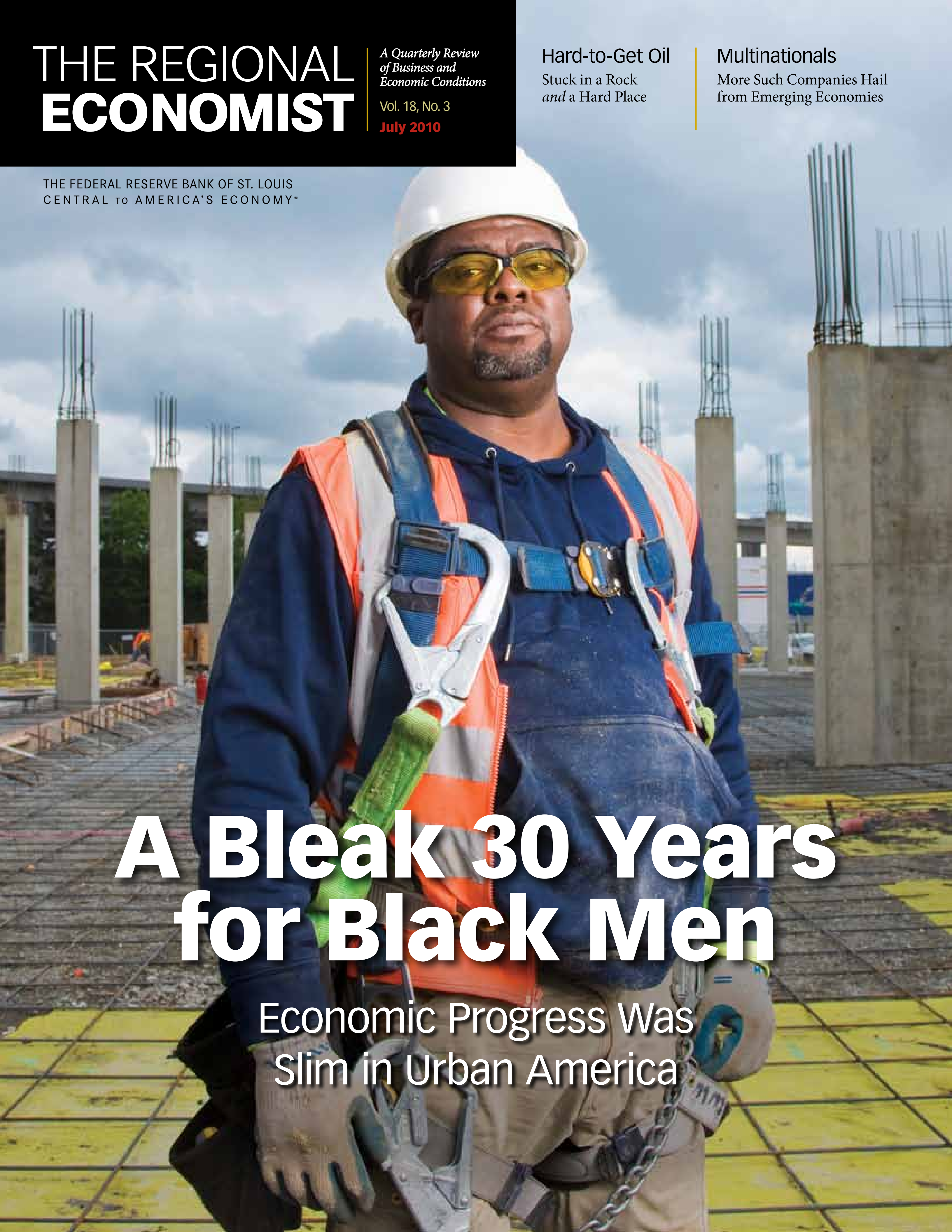
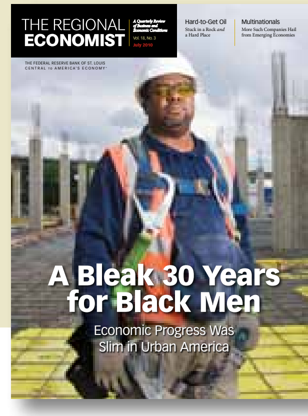


A Bleak 30 Years for Black Men

Economic Progress Was Slim in Urban America

C O N T E N T S



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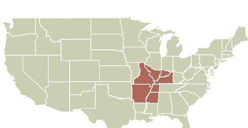

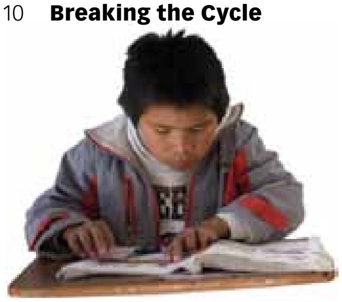

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James Bullard, President and CEO
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The Long and Winding Road to Regulatory Reform

Congress has taken steps to reform our financial system, a difficult and complex task. As of this writing, only the first steps have been taken: Initial legislation has yet to be finalized, and more reforms are needed if we are to prevent future crises.

At the top of my list of additional reforms is an overhaul of Fannie Mae and Freddie Mac, the government-sponsored enterprises that were at the center of the recent crisis. Their actions severely damaged the mortgage market, forced both institutions into conservatorship and will require ongoing large bailouts with taxpayer funds. At a minimum, we need to break up these GSEs—perhaps into regional companies—to open up the market to private players and restructure the incentives under which they operate. Legislators have promised to deal with the GSE problems later this year.

Next, we need to find a way to prevent runs on major nonbank financial institutions, the so-called shadow banking sector. Before the crisis, regulators were not concerned with the possibility of such runs. The more familiar type of run—bank runs by depositors—has occurred numerous times in our economic history, but deposit insurance has successfully thwarted such panics since it was introduced in the 1930s. No one thought that secured creditors of companies such as Bear Stearns, AIG and GMAC would abruptly abandon their repurchase agreements, threatening not only the viability of these companies but also the stability of global financial markets. Deposit insurance is not effective here since these firms do not take deposits. Stricter capital requirements have been proposed as a backstop against excessive risk-taking in the future, but capital requirements alone will not prevent runs.

Extremely large, globally interconnected financial firms are also part of the "too big to fail" conundrum. I can understand the opposition to bailing out these companies. But if we allow abrupt failure, panic will likely ensue, costing society more than would almost any bailout. We need to find a way to unwind these companies in an orderly fashion, similar to the way troubled smaller banks are now quickly and quietly taken over. The proposed legislation does set up a liquidation facility for large financial firms. That facility will probably not gain credibility until it is actually used—until then, we likely have to live with "too big to fail."

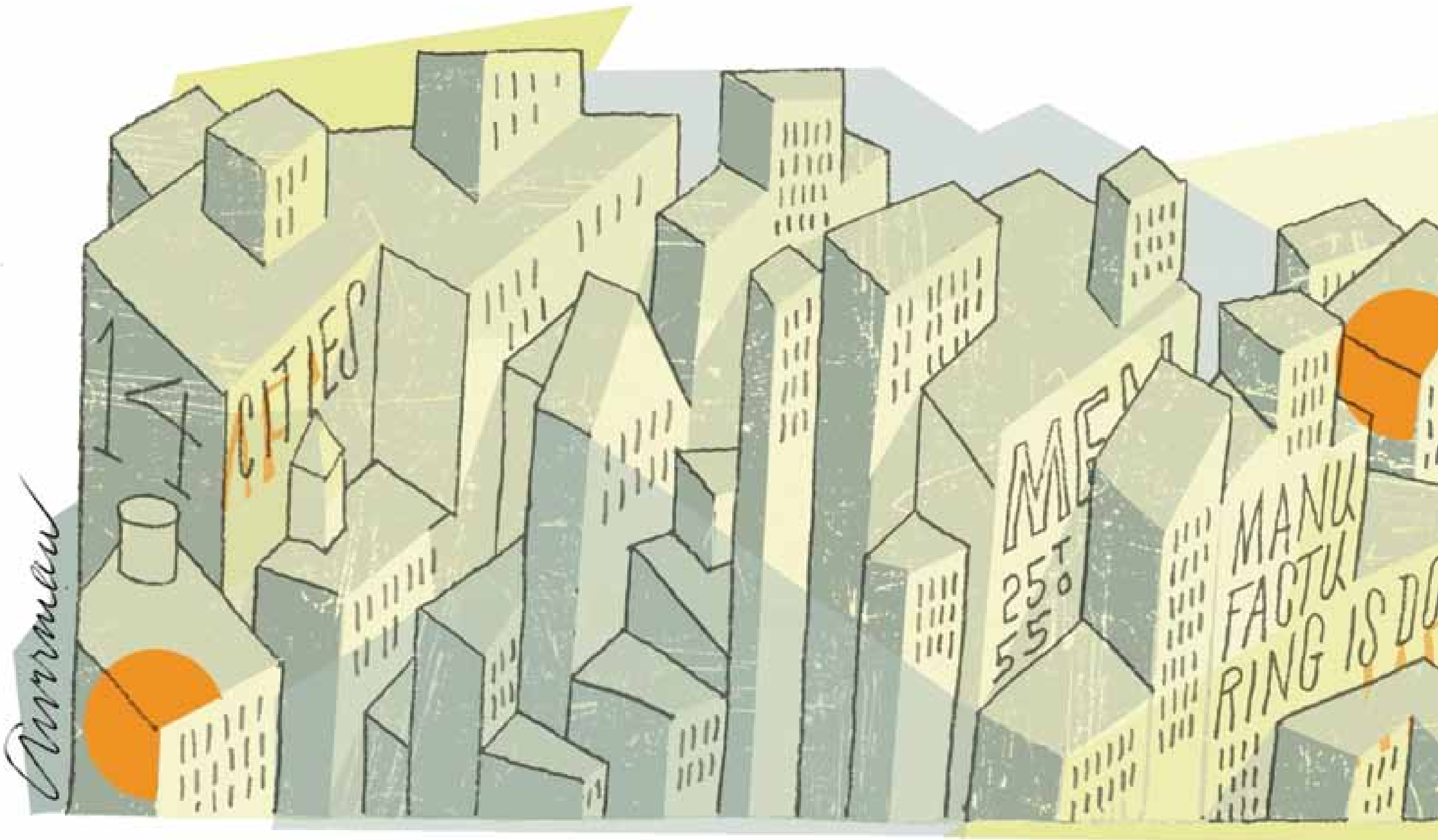
The Fed, with an arm's-length separation from daily politics and a long-term view of the economy, may be a better candidate to monitor systemic risk.

Another segment of the financial system that needs an overhaul is the credit rating agencies. These agencies provided investment-grade ratings to portfolios of risky mortgages that later turned out to be worth very little. The ratings inflation was fueled by laws requiring huge institutional investors to buy only highly rated securities. In addition, the agencies depended on income from the very companies whose securities they were being asked to rate. Competition among the raters was severely limited. Clearly, a fresh start is needed here.

Moreover, some of the proposals in the pending legislation remain problematic. For example, I am not convinced that a council of regulators and political appointees can effectively oversee systemic risks. Preventing the recent crisis would have required that such a committee have (i) the insight to recognize the housing bubble five years ago, (ii) the ability to agree on the appropriate course of action and (iii) the authority and fortitude to implement regulatory policies to stabilize the situation. Such actions would have been very unpopular at the time, given public policies aimed at supporting greater home ownership and given that everyone—the mortgage originator, the mortgage investor, the homeowner, home builders and so on—seemed to be benefiting from the boom. The Fed, with an arm's-length separation from daily politics and a long-term view of the economy, may be a better candidate to monitor systemic risk.

The proposal for a new consumer financial protection agency also needs honing. I support the intention of the proposed legislation, but if this agency is going to be housed in the Fed, it needs to be accountable to the Fed. If not, it should stand on its own.

As we continue to reform our financial system, we must keep in mind two additional facts. First, financial markets are global. We will need the cooperation of regulators in other countries if we are to prevent crises. Such cooperation may not come easily. Second, the financial system is not just the banking system. As the recent crisis illustrates, nonbanks—the GSEs, the investment banks, the insurance conglomerates—are as much of a concern, if not more so, than the banks. We must take into account and regulate the entire financial landscape. Success at this task is still far down the road.



A Bleak 30 Years

ECONOMIC PROGRESS WAS

By Natalia Kolesnikova and Yang Liu

How significant was the economic progress of African-American men in the U.S. between 1970 and 2000? The common perception is that inequality between races decreased. In 1954, the Supreme Court's decision in the famous Brown v. Board of Education case proclaimed racial segregation of public schools unconstitutional. The ruling eventually paved the way for the Civil Rights Act of 1964, which outlawed racial segregation in schools and in the workplace, among other provisions. The act opened doors

ILLUSTRATION BY WHITNEY SHERMAN

for Black Men

SLIM IN URBAN AMERICA

to better education, including higher education, for black children. Because it made racial discrimination illegal, the new law offered greater opportunities to African-Americans in the labor markets.

Did these societal changes translate into economic changes, as well, for blacks? Did earnings of blacks increase relative to earnings of whites? Did the position of black men in the labor force become more secure? How much did educational attainment and skill acquisition improve?

TABLE 1

Weekly Wages and Annual Income

	Weekly Wages: Percent of White Men's Wages Earned By Black Men				Annual Income: Percent of White Men's Income Earned By Black Men			
Year	**1970**	**1980**	**1990**	**2000**	**1970**	**1980**	**1990**	**2000**
SOUTHERN								
Houston	65	76	74	72	59	67	61	59
Memphis	63	73	71	78	52	60	56	66
Atlanta	62	75	75	78	56	64	66	66
New Orleans	63	73	74	75	57	63	60	65
Washington	72	80	81	83	62	71	70	72
EASTERN								
New York	75	76	77	78	68	64	60	58
Philadelphia	79	77	77	77	72	63	63	61
Baltimore	71	78	76	79	66	65	65	67
MIDWESTERN								
St. Louis	74	77	73	77	66	63	59	62
Cleveland	76	82	80	77	70	70	62	63
Chicago	75	75	74	74	69	62	56	55
Detroit	81	83	81	78	71	66	60	63
WESTERN								
Los Angeles	74	77	81	80	66	66	64	62
San Francisco	78	79	82	80	68	63	62	62

SOURCES: Left panel is adapted from Black et al. (2009). Results on the right side are the authors' calculations. The data are from 1970 – 2000 U.S. Census Survey.

TABLE 2

Educational Attainment of Black and White Men in the United States

	Black Percent				White Percent			
Year	**1970**	**1980**	**1990**	**2000**	**1970**	**1980**	**1990**	**2000**
Less than High School	63	38	22	16	35	20	10	8
High School or GED	25	34	39	41	34	35	32	31
Some College, but No Bachelor's Degree	7	18	27	30	13	19	29	30
Bachelor's Degree	5	9	9	10	16	23	18	20
Post-Graduate	1	1	4	4	2	3	11	11

SOURCE: Authors' calculations. The data are from 1970 – 2000 U.S. Census Survey.

Most of the research on these topics is done on a national level.[1] Such studies, at most, "control for" a region (such as the South, Northeast, Midwest, etc.) and/or whether a person resides in an urban/rural area. This article examines and compares various aspects of African-American progress in labor markets between 1970 and 2000 across 14 large metropolitan areas of the country.[2] There are several reasons for performing such analysis at the city level rather than at the national level. First, cities in the U.S. vary widely in their characteristics, including labor market conditions and industrial structure. Second, and more important, the history of black population is very different in different regions of the country. Finally, a recent study demonstrates that it is important to take into consideration geographic location when studying racial differences.[3]

It seems reasonable, therefore, to study economic progress of African-Americans in a context of a specific labor market and then compare it across cities.[4] To be more precise, by "city" we mean a Metropolitan Statistical Area (MSA) as defined by the Census Bureau.[5] In our analysis, we concentrated on black men who are 25 to 55 years old and compared them to non-Hispanic white men. We plan to perform a similar analysis for women in our future research.

Changes in Relative Wages

Many studies concentrate on wages as a measure of earnings. It is a logical approach because the wage is the price that labor markets put on a unit of skilled labor. In this case, a decrease in the black-white wage gap would mean that labor markets' valuations of black and white labor were converging. It also would indicate the convergence of skill levels of black and white workers.

The left panel in Table 1 compares the average weekly wages of black and white men for each of the 14 cities.[6] There was an increase in relative weekly wages of black men between 1970 and 2000 in all but three cities.

Atlanta experienced the largest increase in relative wages of black men. In 1970, black men in Atlanta were making about 62 percent of white men's weekly wages. By 2000, the ratio had increased by 16 percentage points, to 78 percent. Philadelphia, Chicago and Detroit saw relative wages of black men decrease between 1970 and 2000 but only slightly: from 79 to 77 percent in Philadelphia, from 75 to 74 percent in Chicago and from 81 to 78 percent in Detroit.

Changes in Educational Attainment

A major part of black-white wage convergence is attributed to a significant increase in educational attainment levels of blacks over the last century. Table 2 reports the proportion of black and white men in each of the five main education categories (less than high school, high school diploma or GED, some college but no bachelor's degree, bachelor's degree, above a bachelor's degree) in the United States. National data are good estimates for all 14 cities as educational attainment progress of blacks and whites in each city is consistent with the national trend.

Several points are worth noting. First, in 1970 black men had extremely low levels of educational attainment. Sixty-three percent of blacks had less than a high school degree, and only 13 percent of them attended college. What is more, only 6 percent of black males had a bachelor's degree or higher in 1970.

Second, there was significant progress in educational attainment of black men between 1970 and 2000. In 2000, only 16 percent of black men aged 25 to 55 lacked a high school diploma, down from 63 percent in 1970. The fraction of blacks who went to college significantly rose to 44 percent, although less than a third of those who pursued their education beyond high school received a bachelor's degree or higher.

Third, despite the progress made by black men in terms of improving educational attainment, they still lagged far behind white men. Although the proportion of black men without a high school diploma decreased considerably between 1970 and 2000, the rate in 2000 was still twice as high as that of white men. Given the sharp rise in the demand for educated labor over the past several decades, it is particularly alarming that only 14 percent of black men had a bachelor's or higher degree by the year 2000, while 31 percent of white men achieved that level of education. An additional concern is with the quality of education that black men receive, especially in inner city schools in major urban areas.

Changes in Relative Annual Income

The difference in wages is one of the labor market characteristics that can potentially contribute to racial economic disparity. Other factors are important, such as labor force participation, unemployment and underemployment. To better assess the economic progress of blacks, it is important to consider a different measure—annual earnings, which take into consideration both wages and labor force participation. Analyzing annual earnings instead of weekly wages allows a better assessment of overall economic well-being of an individual.

The right panel of Table 1 provides a summary of changes of black-white *annual earnings* ratios in the 14 cities from 1970 to 2000. This picture of economic progress of black men is much less bright. In contrast to weekly wages, relative annual earnings *declined* in most cities. In Southern cities that did experience an increase in relative annual earnings of black men, most of the progress happened between 1970 and 1980 with no significant changes after that. In Chicago, where relative annual earnings fell the most (14 percentage points), black men were earning 69 percent of white men's annual income in 1970 but only 55 percent by 2000. Most of the Midwestern and Eastern cities in the sample experienced a similar decline.

Interestingly, the magnitude and timing of the decrease in relative annual earnings of black men varied across cities. In New York, for example, the overall decrease of 10 percentage points was spread somewhat equally over these three decades. In Philadelphia, a drop of almost 10 percentage points between 1970 and 1980 was followed by virtually no change after 1980. In Cleveland, the largest decrease occurred between 1980 and 1990. In Detroit and St. Louis, two decades of regress were followed by an increase of three percentage points between 1990 and 2000. In Baltimore and Los Angeles, in contrast, the black-white annual earnings ratio remained nearly stable over the three decades.

Changes in Labor Force Participation

The main reason for the discrepancy between the two measures of economic progress of black men in 1970-2000 in Table 1 is the labor force attachment of black men.

A significant decline occurred in the average number of weeks that black men worked per year between 1970 and 2000.[7] The number decreased in every city, in some of them by as much as 25 percent. In 2000, black men on average worked only 33 weeks a year in San Francisco (down from 42 weeks in 1970), 34 weeks in Los Angeles and Chicago (down from 43 and 45 weeks in 1970), and 35 weeks in Detroit (down from 45 weeks in 1970). Atlanta is the city with the highest average number of weeks worked in 2000, 41 weeks. But even this number is not higher than the average number of weeks worked by black men in any of the 14 cities in 1970. In contrast, the weekly hours of work stayed remarkably stable between 1970

Only
14%
OF BLACK MEN
had a bachelor's or higher degree **in 2000,** compared with **31 percent** of white men.

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TABLE 3

Employment Status of Black Men

Year	1970	1980	1990	2000
SOUTHERN				
Houston				
Has a job	92	89	79	77
Unemployed	2	3	10	6
Not in Labor Force	6	8	11	17
Memphis				
Has a job	85	79	79	74
Unemployed	3	9	7	6
Not in Labor Force	11	13	14	20
Atlanta				
Has a job	87	82	84	81
Unemployed	3	7	7	4
Not in Labor Force	10	11	9	15
New Orleans				
Has a job	84	80	71	71
Unemployed	4	6	10	6
Not in Labor Force	12	14	18	23
Washington				
Has a job	92	85	87	81
Unemployed	1	5	5	5
Not in Labor Force	7	9	8	14
WESTERN				
Los Angeles				
Has a job	83	78	76	70
Unemployed	7	8	9	9
Not in Labor Force	10	14	15	21
San Francisco				
Has a job	83	76	73	71
Unemployed	7	9	7	7
Not in Labor Force	11	15	21	22

Year	1970	1980	1990	2000
MIDWESTERN				
St. Louis				
Has a job	83	74	71	72
Unemployed	8	13	13	7
Not in Labor Force	10	13	16	21
Cleveland				
Has a job	85	75	68	72
Unemployed	6	11	13	8
Not in Labor Force	9	14	18	20
Chicago				
Has a job	88	75	71	69
Unemployed	4	10	13	9
Not in Labor Force	8	14	16	22
Detroit				
Has a job	86	65	66	69
Unemployed	7	19	15	8
Not in Labor Force	7	16	19	23
EASTERN				
New York				
Has a job	86	77	76	71
Unemployed	3	8	9	7
Not in Labor Force	10	15	15	22
Philadelphia				
Has a job	86	74	76	72
Unemployed	5	10	10	8
Not in Labor Force	9	16	14	21
Baltimore				
Has a job	87	78	78	74
Unemployed	4	8	8	7
Not in Labor Force	9	14	14	19

SOURCE: Authors' calculations. The data are from 1970 – 2000 U.S. Census Survey.

and 2000 with relatively small increases in some cities and decreases in others.

The low number of weeks that black men worked on average in 2000 not only implied underemployment for many of them, but also that many black men did not work at all, which drove the average numbers down.

To better assess changes in labor force participation of black men between 1970 and 2000, Table 3 shows the proportion of black men who had a job, were unemployed or were out of the labor force. The table illustrates two main changes between 1970 and 2000: a decrease in the proportion of black men who had a job and an increase in the proportion of black men who reported themselves as being out of the labor force.

The table also demonstrates that in a number of cities there was a rise in the unemployment rate in 1980 and 1990 followed in 2000 by a decrease in the unemployment rate together with an increase in the proportion of black men who were out of the labor force. The observed trend seems to be consistent with a "discouraged workers" explanation: When the unemployment rate is high for a prolonged period of time, workers who are looking for jobs give up and opt out of the labor force and, thus, are not counted as unemployed.

Consider Chicago, for example. In 1970, 88 percent of black men there had jobs, the unemployment rate was 4 percent and 8 percent of black men were not in the labor force. By 1980, the number of employed black men dropped to 75 percent, the unemployment rate was 10 percent and 14 percent of black men were out of the labor force. Things kept getting worse, and by 1990, 71 percent were employed, 13 percent were unemployed and 16 percent were not in the labor force. In 2000, the rate of employment for black men decreased further, to 69 percent. The unemployment rate actually decreased from 13 percent to 9 percent. The proportion of black men who were out of the labor force, however, rose to a staggering 22 percent.[8]

A similar pattern of changes in the labor force can be observed in many other cities, including Houston, New Orleans, St. Louis, Cleveland, Detroit and Philadelphia. In 2000, in 10 out of 14 cities, the proportion of black men out of the labor force was at least 20 percent. This high level of black men opting out of the labor force was observed even in cities where the unemployment rate was relatively stable at 7-9 percent, such as Los Angeles and San Francisco.

All cities, except Atlanta, experienced a decrease in employment rates of black men between 1970 and 2000 by 11-19 percentage points. Atlanta had a much smaller drop of only six percentage points. In 2000, Atlanta and Washington tied for the highest employment rate of black men, and Atlanta had the lowest unemployment rate.

To sum up, between 1970 and 2000 in 14 major urban areas black men experienced a significant decrease in their rates of employment while unemployment and rates of opting out of the labor force increased. As a result, their average numbers of annual weeks of work and annual earnings relative to white men decreased dramatically.

Why did this happen? What were the contributing factors? To answer these important questions, take a closer look at changes in the labor markets.

Deindustrialization and Changes in Industrial Composition

Industrial composition changed considerably from 1970 to 2000, especially in manufacturing cities.[9] The main story of the three decades is a decline in manufacturing employment and a rise in the number of people working in the service industry. With the exception of Washington, where government jobs historically dominate, employment of men in manufacturing in the cities studied dropped by at least eight percentage points. In cities that were predominantly industrial, such as St. Louis, Cleveland, Chicago, Detroit and Baltimore, manufacturing employment fell by 17-19 percentage points.

remained much worse than that of white men. What is more, there appeared to be virtually no progress of black men in the labor markets between 1970 and 2000. Some important indicators, such as the rate of those no longer in the labor force and relative annual earnings, actually became worse.

While the overall picture was rather bleak, there were clear differences among cities. Industrial cities in the Midwest (Chicago, Detroit, Cleveland and St. Louis) experienced more serious deterioration of

In Chicago, 8 percent of black men were not in the labor force **in 1970. By 2000,** the number had risen to a staggering **22 percent**.

22%

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Deindustrialization hurt both blacks and whites, but blacks were more affected. One reason is that black men were more likely to be employed in manufacturing in 1970.[10] In Detroit, for example, the proportion of black men in manufacturing decreased from 56 percent in 1970 to 26 percent in 2000. More generally, in 10 out of 14 cities, manufacturing employed the largest proportion of black workers in 1970; by 2000, manufacturing lost its leading role in all cities except Detroit.

Another reason black men suffered more than white from deindustrialization is that black men, on average, had a lower level of educational attainment, making it harder for them to adapt to new labor market conditions and to find new jobs in a different industry. Also, as more and more jobs required training beyond high school, black men were in a worse position than white men because of the relatively low levels of education.

Not surprisingly, labor market conditions deteriorated more significantly in cities with a high manufacturing concentration. In cities that were more diverse in terms of an industrial mix, the results of deindustrialization were less dire. For example, labor force participation of black men did not decrease nearly as dramatically in Atlanta and Washington as in Chicago and Detroit.

Comparison of Cities

More than 35 years after the Civil Rights Act, the economic status of black men

the labor markets precisely because they had been predominantly manufacturing cities. With the decline of the importance of manufacturing and a move to high-tech and service industries, the low-educated labor force of these cities faced tougher labor market conditions. This resulted in high levels of unemployment. More people became discouraged about their prospects for finding a job and dropped out of the labor force completely.

Most Eastern and Western cities in the study showed a decline similar to that of Midwestern cities but to a somewhat lesser degree.

Southern cities, on the other hand, saw some economic progress of black men, mostly between 1970 and 1980. These improvements, together with the reversal of economic progress in the Midwest, resulted in more uniform conditions across locations of black men in 2000 than in 1970.

Despite changes in racial acceptance and equality, the evidence reveals that significant racial disparities remained in education and labor market outcomes through 2000. Ω

Natalia Kolesnikova is an economist at the Federal Reserve Bank of St. Louis. See http://research.stlouisfed.org/econ/kolesnikova/ for more on her work. Yang Liu is a research associate at the Bank.

ENDNOTES

1 A very good overview of existing studies is presented in Altonji and Blank.
2 The article is based on Black et al. (2010). The 14 cities in the sample were chosen based on a criterion that the corresponding metropolitan area (MSA) had at least 700 black respondents in 1970 data. See also endnotes 4 and 5.
3 See Black et al. (2009).
4 The data for this article are from 2000 Public Use Micro Sample of the U.S. Census. See Ruggles et al.
5 The general concept of a metropolitan statistical area (MSA) is that of a central city, together with adjacent communities having a high degree of economic and social integration with the central city.
6 The table is adapted from Black et al. (2009).
7 See Black et al. (2010) for more.
8 To put the numbers in the right context, it is worth reminding that the sample consists of prime-age (25-55 years old) black men who are not incarcerated and are not in the military.
9 See Black et al. (2010) for details.
10 Black et al. (2010) present detailed statistics on manufacturing employment of all men and of black men separately.

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Mexico's *Oportunidades* Program Fails to Make the Grade in NYC

By Brett Fawley and Luciana Juvenal

Children in school in Norogachi, Mexico.

New York City Mayor Michael Bloomberg announced in March that his city would not be extending the program Opportunity NYC-Family Rewards. Aimed at alleviating the burden of poverty among the city's most disadvantaged citizens, the privately funded conditional cash transfer (CCT) program was introduced in September 2007 as the first comprehensive initiative of its kind to be attempted in the developed world.[1] Three years later, the program that many, including the mayor, had hoped would compete for public funding is instead scheduled to end in August.

Meanwhile, in Mexico, the CCT program that directly inspired its New York cousin is widely considered a success. Fourteen years ago, *Oportunidades* (then PROGRESA) initiated cash payments to 300,000 impoverished rural families for actively managing their health and keeping their children in school. Today, having survived multiple political regimes, the program provides direct cash support to 5 million poor Mexican families (86 percent from rural areas) at an annual cost of $3.62 billion.

To infer that Opportunity NYC failed due to fundamental differences between rural poverty in Mexico and urban poverty in the United States, however, neglects that—beyond name, objective and CCTs (conditional cash transfers)—the programs themselves were fundamentally different.

The overarching objective and means of achieving that objective were the same in both programs: impede the intergenerational transmission of poverty by use of CCTs. Cash today lessens the strains of poverty immediately; conditions imposed on the receipt of that cash force investment in "human capital," ideally lessening future dependence on the state. To infer that Opportunity NYC failed due to fundamental differences between rural poverty in Mexico and urban poverty in the United States, however, neglects that—beyond name, objective and CCTs—the programs themselves were fundamentally different. The purpose of this article is to clarify why the programs must be considered independently and to highlight one story that the data from Opportunity NYC told.[2]

Oportunidades: Enabling

Each year, teenagers around the globe drop out of school not because they fail to appreciate the opportunities education offers but because they cannot afford the investment. The economic concept of opportunity cost, which captures the mutually exclusive nature of decisions, permits this even when school is free. In developing countries such as Mexico, where compulsory education and child labor laws exist but are poorly enforced, the opportunity cost of education (not earning a wage) is often prohibitively high for the poor. Original survey data collected by *Oportunidades* demonstrates this. As late as 11 years of age, 92 percent of the rural Mexican children who were surveyed were still in school. By 15, that number dropped to 39 percent, and by 17 it was 26 percent. Where did they go? At 11 years of age, 4.26 and 1.69 percent of boys and girls, respectively, reported being employed. By age 16, those numbers were 48.65 for males and 13.22 percent for females.[3]

The *Oportunidades* program was designed to address the financial constraints preventing students from continuing their education. Every two months, eligible mothers of students with attendance of at least 85 percent received a cash subsidy. This subsidy, compensating for approximately 40 percent of the child's lost wages, increased with age and earning power, an acknowledgement of the root cause of dropping out.

Of the 506 very similar poor rural communities initially selected to receive the benefits of the program, eligible families in 320 randomly chosen communities were designated to receive the first round of benefits in 1998.[4] Immediately, the "treated" villages saw a statistically significant increase in enrollment compared with the "control" villages, which did not receive cash subsidies. The percent of 14-, 15- and 16-year-olds enrolled in school increased by 16, 5 and 6 percent respectively.[5]

The potential for CCTs to positively influence school drop-out rates is not confined to the developing world. British and Australian programs that offered financially eligible students regular cash payments for staying in school are credited with an average four percentage point increase in the proportion of low-income students maintaining post-compulsory enrollment. The full impact is not completely ascribable to drawing employed students back to school (estimates are that two-thirds of the increase in U.K. enrollment is attributable to

Effect on 9th-Graders Attempting and Earning 11 or More Units in the First Year of Opportunity NYC

	Academically Prepared		Academically Unprepared	
	% Attempting	% Earning	% Attempting	% Earning
Control Group	91.6	68.8	84.9	47.1
Program Group	95.7	77.6	90.5	43.6
Difference	4.1**	8.9**	5.6***	–3.5

SOURCE: MDRC calculations using data from New York City Department of Education administrative records

NOTES: ** and *** represent statistically significant differences between the control group and the program group at the 5 percent and 1 percent significance levels. "Academically Prepared" ninth-graders are defined as those students who were deemed proficient in math on their eighth-grade standardized tests. Results are qualitatively the same when proficiency in English is used instead.

previously inactive students), but the results nonetheless offer strong evidence that CCTs structured similarly to those of *Oportunidades* can make a difference in developed countries.

Opportunity: Incentivizing

The New York CCT program immediately diverged from *Oportunidades* by reinterpreting the conditions attached to cash transfers. Cash was used to incentivize achievement, not enable participation. Payments were made for attending school more than 95 percent of the time ($25-$50 per month), earning enough high school credits in a year to graduate on time ($600) and passing standardized tests ($300-$600), among other accomplishments.

As indicated by the decision not to continue the program, the early numbers released in March fell short of expectations. Across elementary, middle and high school, students enrolled in the program showed no statistically significant increase in achievement on average. This does not mean, however, the incentives had no effect. Among high school students, who would have been most motivated by virtue of receiving cash payments directly, the fraction of students attempting 11 units (the number required for on-time graduation) and taking Regents Exams (students must pass at least five to receive a diploma) grew at statistically significant rates. The accompanying table reveals that the incentives' failure was not at getting people to try, but rather at getting them to consistently achieve.

Standardized test results from eighth grade allowed researchers to identify ninth-graders whom they termed "academically prepared." Compared with their equally prepared peers not in Opportunity NYC, an additional 8.9 percentage points of these students earned 11 or more credits. A 7.5 percentage point increase in the number of "prepared" freshmen passing at least one Regents Exam also occurred (not in the table).

There are two major conclusions to draw. First, independent of whether one believes in the appropriateness of external incentives in school, not all capable students are reaching their full potential without them.[6] The ability of adolescents to recognize the full benefits of education on their own may be limited, and there is room even among the capable to improve performance. Second, and far more pressing, a great majority of underprivileged adolescents in New York outright lack the resources necessary for achievement. Without improving the education offered by schools or providing a support system for students beyond financial incentives, Opportunity NYC had an impact on "academically prepared" students that compares favorably with the accomplishments of whole-school reform movements such as the Talent Development Model and First Things First. Unfortunately, however, only a third of the student population meets this description. If the data accurately represent that the incentives were large enough to influence effort school-wide, then the implication is that by middle school a pronounced ability gap exists even within socioeconomically disadvantaged students. Ω

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ENDNOTES

1 Beneficiaries of CCTs receive direct cash payments in return for taking specific actions to improve their general health and earning potential.

2 Although this article is confined to the educational aspects of the New York and Mexican programs, both are comprehensive programs designed to holistically address the causes and consequences of poverty. The original name of the Mexican program, PROGRESA, is a Spanish acronym for health, nutrition and education. Our focus on education reflects that both programs' long-term goal was to break the cycle of poverty, and education is widely viewed as essential to this cause.

3 This number misrepresents that enrollment dropped more precipitously for females than males. Presumably, many additional females were engaged in informal and unpaid household work. It's also likely that they perceived lower gains from education than their male counterparts did.

4 Limited resources precluded an immediate full rollout. The others would be included in the program in 2000.

5 The large increase for 14-year-olds reflects the critical transition from primary school to secondary school. The smaller number of secondary schools often meant traveling longer distances to attend, further discouraging enrollment.

6 See Angrist and Lavy, as well as Jackson, for examples of other programs that reported success from financially rewarding students.

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An Early Childhood Investment
with a High Public Return

By Rob Grunewald and Arthur J. Rolnick

ARIEL SKELLEY/BLEND IMAGES/GETTY IMAGES

Investments in high-quality early childhood programs, particularly those targeted to children at risk, are not just a virtuous service, but can yield a large return for those paying the bill. Study after study has proved that such programs, coupled with training for parents, result not only in economic gains for the children as they grow up, but sizable savings on taxes. For example, graduates from these preschool programs are less likely to need special education, end up being arrested fewer times and spend less time in prison (which means fewer crime victims), require fewer social services, are healthier and wind up paying more in taxes.

Although this may sound too good to be true, we've seen the evidence in our eight years following this issue as economists for the Federal Reserve Bank of Minneapolis. In particular, we've kept our eye on four early childhood programs in different parts of the country for which cost-benefit analyses have been conducted with well-matched control groups.

Children who attended the Perry Preschool in Ypsilanti, Mich., were tracked until they turned 40. While 3 and 4 years of age, they attended the school half-day and their teachers visited their homes once a week to reinforce lessons learned in the classroom. The two-year total cost per child was on average almost $19,000 in today's dollars. The total benefits reached $300,000, for a rate of return of about 18 percent.[1] A lengthier and more intense program (ages 3 months through 4 years) was provided by the Carolina Abecedarian Project in Chapel Hill, N.C. The total four-year cost per child was on average almost $43,000, and the total benefit was $162,000 with a rate of return of 7 percent.[2] At the other two early childhood programs (another preschool program and one in which nurses visit the homes of expectant mothers who are at risk), returns were estimated as high as 20 percent. Well over half of all these returns accrued to the nonparticipants, the public.[3]

The Stumbling Blocks

If the benefits clearly outweigh the costs, why aren't more disadvantaged children enrolled in early childhood programs? First, as noted by the price tag of the model programs discussed above, quality does not come cheap. Successful programs require well-trained staff and low ratios of children to teachers. One funding suggestion is to shift taxpayer-financed incentives from other programs, such as the sort of economic development plan that pays a company to move from one part of the country to another, yielding no net benefit for the nation.[4] Others have suggested that when extra school funds are found, they be invested in early childhood education instead of at higher grades, when children are less receptive to the additional help.

> One funding suggestion is to shift taxpayer-financed incentives from other programs, such as the sort of economic development plan that pays a company to move from one part of the country to another, yielding no net benefit for the nation.

Another hurdle to providing such programs for at-risk children is the difficulty in reaching low-income families; they are often on the move in their search for housing and jobs. Among the other obstacles is the dearth of high-quality programs in low-income neighborhoods.

To help overcome these difficulties, we have proposed a "tuition plus" scholarship program for all at-risk children.[5] A scholarship would cover tuition for the child to a qualified early childhood development program, starting at age 3 and lasting up to two years. The "plus" would be a parent-mentoring program, starting even before the child is born. The scholarships and parent mentoring would be funded with a permanent endowment led by state governments.

In January 2008, a pilot project based on this model was begun in St. Paul with about $6 million raised by the Minnesota Early Learning Foundation. The foundation was established with the help of business leaders in 2005; its mission is to sponsor demonstration projects that explore how Minnesota can cost-effectively invest in early childhood development with an emphasis on market-oriented solutions.[6]

The St. Paul Early Childhood Scholarship Program has served about 650 children and their families with parent mentoring and/or scholarships in two neighborhoods in St. Paul. In December 2009, the two-year point of the pilot, the program evaluator noted that the scholarships were reaching especially poor children: 71 percent of the families had household income below the poverty level, which is about $22,000 for a family of four. Prior to the availability

Pre-K Spending in the Eighth District, 2009

	Percent of 3- and 4-year-olds enrolled in pre-K	Ranking among 50 states	Total state pre-K spending	State pre-K spending per enrolled child
Illinois	25.0	7th	$327,024,460	$3,438
Arkansas	24.6	9th	$111,000,000	$5,421
Kentucky	19.1	13th	$75,127,700	$3,497
Tennessee	11.2	19th	$83,000,000	$4,520
Missouri	2.9	34th	$13,156,901	$2,880
Indiana	No Program			
Mississippi	No Program			

SOURCE: National Institute for Early Education Research

of scholarships, only about one-third of children in the pilot program attended a licensed early childhood program. After the availability of the scholarships, children were attending a variety of high-quality early childhood programs, including nonprofit and for-profit child care and preschools, Head Start, family-based child care and public school-based preschool programs. About three-quarters attended full-day programs; the rest attended half-day programs.[7]

The two-year report also shows the number of high-quality programs in and near the pilot area increased more than 50 percent, from 14 programs to 22 between September 2008 and September 2009, as existing programs improved their quality and new programs opened in the area. Meanwhile, parents considered the program to be user-friendly and had strong positive opinions about the parent mentors and scholarships.[8] During the remainder of the pilot, the evaluators will measure the impact of the program on the school readiness of participating children.

Lessons in Progress

Thirty-eight states provide state funds for prekindergarten programs. In the Eighth District, five states fund pre-K; Indiana and Mississippi do not. (See table.) As these and other states consider starting or expanding pre-K or scholarship programs, lessons learned so far from the St. Paul pilot are applicable, particularly in reaching low-income children, engaging parents and providing incentives to increase openings at high-quality programs.

As discovered in the St. Paul pilot, recruiting low-income families can be challenging, particularly since these families tend to be highly mobile. On the ground, person-to-person recruitment and word of mouth were more effective than passive outreach efforts. However, once parents enrolled in the program, they noted it was relatively easy to use and were enthusiastic about the scholarships, particularly when compared with government-administered child-care subsidies.[9] Combining parent mentors with the resources to choose a high-quality program for their child seems to have helped engage parents in the education of their children. On the program side, more openings in high-quality programs have become available in part because the programs are paid at a higher rate than if they provided more-typical child care. Ω

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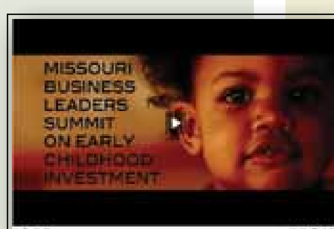
Watch Video on This Topic



James Heckman from the University of Chicago spoke recently at the St. Louis Fed on the economic case for early childhood education for disadvantaged children. See excerpts from his address, which was delivered at the Missouri Business Leaders Summit on Early Childhood Investment. To watch the eight-minute video, go to the multimedia page on www.stlouisfed.org. The exact URL is **http://www.stlouisfed.org/newsroom/multimedia/video/20100308-childhood-investment.cfm**

ENDNOTES

1 See Schweinhart et al. A recent re-analysis of the Perry Preschool Program data by Heckman et al. shows a total rate of return between 7 percent and 10 percent.
2 See Masse and Barnett.
3 See Heckman, Grunewald and Reynolds.
4 See Grunewald and Rolnick (2003).
5 See Rolnick and Grunewald (2006).
6 More information about MELF, including a list of board members, is available at www.melf.us.
7 See Gaylor et al.
8 Ibid.
9 Ibid.

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Unconventional Oil Production

Stuck in a Rock and a Hard Place

By Kristie M. Engemann and Michael T. Owyang

Oil sands are loaded onto trucks at the Suncor mine near Fort McMurray, Alberta, on Oct. 23. MARK RALSTON/AFP/GETTY IMAGES

Highly variable oil prices and increasing world demand for oil have led producers to look for alternative sources of transportation fuel. Two popular alternatives are oil sands (aka tar sands) and oil shale. However, obtaining usable oil from oil sands or oil shale is more capital-intensive and more expensive than obtaining oil from conventional reserves. At what price of oil do these alternatives become cost-effective?

Oil Sands

Oil sands are a mixture of sand, water, clay and heavy, viscous oil called bitumen. The largest known deposits of oil sands are in Alberta, Canada, and the Orinoco Oil Belt in Venezuela. As of 2005, the amount of oil in all oil sands deposits was estimated to be nearly 5.8 trillion barrels (about 2.4 trillion barrels located in each of Canada and Venezuela), with about 0.3 trillion barrels estimated to be recoverable.[1] For comparison, an estimated 1.2 trillion barrels of conventional crude oil are recoverable.[2]

The process to obtain usable oil from oil sands is more complex than drilling the oil from the ground. For reserves close to the surface (e.g., about 20 percent of Canada's total reserves), the oil sands are extracted and transported to another location, where the bitumen is separated from the rest of the matter using a hot water process. Because most refineries are not capable of using bitumen directly, the bitumen then goes to an upgrading facility, where it is turned into a product that refineries can use (such as synthetic crude oil). For deposits more than 250 feet below the surface, the bitumen is extracted directly from the oil sands through various techniques, such as steam-assisted gravity drainage, which is the most common method used in Canada. In this process, producers drill two horizontal wells; the first is injected with steam to heat the bitumen, and the other pumps the heated oil to the surface. In Venezuela, the oil is warmer and less viscous, and, therefore, steam is not necessary. Producers commonly drill multiple horizontal wells and use pumps to send the oil to the surface. The oil obtained by these underground methods is also sent to an upgrading facility.[3]

Oil Shale

Oil shale is sedimentary rock that contains organic matter—called kerogen—and mineral matter. Kerogen is not actually oil, but it releases a substance similar to oil when heated. An estimated 2.8 trillion barrels of oil existed in known oil shale deposits at the end of 2005, although not all of the kerogen is recoverable. Seventy-four percent of the known deposits are in the United States, primarily the Green River Formation in Wyoming, Utah and Colorado, which is the largest deposit in the world.[4]

As with oil sands, obtaining usable oil from oil shale is not simple. For more-accessible deposits, the oil shale can be mined by either surface or underground methods. The mined oil shale then undergoes a process called surface retorting, in which it is crushed and heated to about 1,000 degrees F, releasing the oil-like liquid. Because this "oil" is unstable, it goes to an upgrading facility, where it is turned into a stable oil before being sent to refineries.

For less-accessible deposits, the oil shale may be heated where it is, and the liquid that is released is transported to a separate facility and upgraded to a stable oil. A process developed by Shell Oil called the In situ Conversion Process could potentially create stable oil directly and, thus, bypass the upgrading step. In this process, the oil shale is electrically heated for two to three years until it reaches about 700 degrees F, and the released liquid is collected. The company uses a "freeze wall" around the perimeter to keep out groundwater and to keep in the heated products. So far, Shell has successfully tested its process on only a small scale.[5]

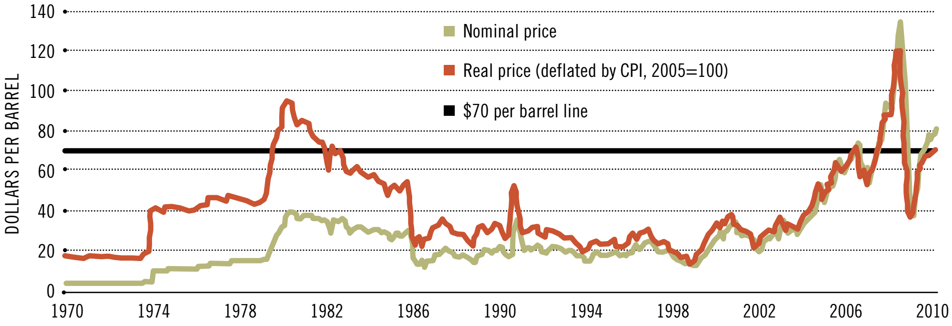
High Cost and Other Issues

Because of the extra steps and capital needed to produce a usable product, the cost of producing a barrel of oil from oil sands and oil shale is higher than from crude oil reserves. Therefore, the unconventional oil requires a higher price per barrel to be cost-effective. Existing Canadian oil sands operations could continue even if the price of oil is less than $50 per barrel, according to a recent report. But for the Canadian oil sands industry to grow, oil must be at least $70 per barrel to make production economically feasible.[6]

A 2005 study examined the possible development of an oil shale industry in the United States. For a new operation using the mining and surface retorting method, a barrel of oil must cost at least $70 to $95 (in 2005 dollars) for the business to be economically feasible.[7] As shown in the chart, the real price of West Texas Intermediate crude oil has not regularly sustained a price of $70 over the past 10 years. Prices must consistently remain greater than the cost-effective threshold in order for an unconventional oil industry to be feasible.

In addition to high production costs, environmental issues pose a potential problem for

Spot Price of West Texas Intermediate Crude Oil



SOURCES: *Wall Street Journal* (oil price) and Bureau of Labor Statistics (Consumer Price Index—CPI).

these alternative oil production methods, as discussed in two studies from 2005. Concerns about the effects on air, water and land quality have been raised. For example, the greenhouse gas emissions for oil sands production are three times higher than for conventional oil production in Canada. Additionally, Alberta produces more air pollution than any other Canadian province, and the amount is expected to rise as oil sands production increases. Much of the water used in the oil sands operations comes from Canada's Athabasca River. Some of the water—along with other matter from oil sands—ends up in designated ponds, where pollutants may harm aquatic life and seep into the groundwater. Oil sands production can also change the ecosystem. For example, Canada requires that once operations are finished, companies must return the land to usable form, but the before-and-after uses need not—and likely will not—be exactly the same.[8]

Some of the same types of environmental issues have been raised with oil shale. Greenhouse gas emissions are higher than for conventional oil production because of the extra steps needed to obtain usable oil. Water quality may worsen because of the disposal of processed oil shale, which contains higher salt levels than the raw oil shale and also some toxic substances that could come in contact with water sources. As with oil sands production, the habitat for plants and animals would likely change permanently. For instance, the oil shale that is left after retorting might be placed back at the original site, but the processed oil shale would take up 15 to 25 percent more space than the raw oil shale.[9]

Increased environmental regulations could lead to higher costs for unconventional oil production and, thus, a higher price for which production would be cost-effective.

Future Predictions

A report from last year predicts that demand for liquid energy will increase by 25 percent between 2006 and 2030. During roughly the same period, the per-barrel price of light, sweet crude oil is expected to more than double ($61 in 2009 and $130 in 2030, in 2007 dollars). At these higher prices, oil production from the unconventional sources becomes more feasible. As a result, the report notes that total world production from oil sands should increase from about 1.8 million to 5.4 million barrels per day, and total world production from oil shale should increase from a small amount to about 200,000 barrels per day.[10] Ω

Michael Owyang is an economist at the Federal Reserve Bank of St. Louis. See http://research.stlouisfed.org/econ/owyang/index.html for more on his work. Kristie Engemann is a research associate at the Bank.

ENDNOTES

1 See World Energy Council for definitions and information on resources and production. In Canada, the viscous oil is called natural bitumen; in Venezuela, where the oil is less viscous, it is called extra-heavy oil.
2 The estimate was calculated from the table "World Proved Reserves of Oil and Natural Gas, Most Recent Estimates" from the Energy Information Administration (EIA); original data sources were the EIA and the *Oil & Gas Journal.*
3 For information on oil sands production methods in Canada, see the Oil Sands Discovery Centre's fact sheet. For information on Venezuela's methods, see World Energy Council.
4 See World Energy Council.
5 See Bartis et al. for oil shale processes.
6 See McColl.
7 See Bartis et al.
8 See Woynillowicz et al. for potential environmental issues for production from oil sands.
9 See Bartis et al. for potential environmental issues for production from oil shale.
10 See the Energy Information Administration's outlook report.

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Multinationals from Emerging Economies

Growing but Little Understood

By Silvio Contessi and Hoda El-Ghazaly

China's Haier opened this appliance factory 10 years ago in Camden, S.C.

PHOTO © GREGG SEGAL

Multinational companies from the emerging world are a relatively new phenomenon. A decade ago, 20 companies on the Fortune Global 500 list were based in emerging economies; three years ago, 70 were. In all, emerging economies are home to an estimated 21,500 multinationals.

Emerging Markets Multinationals (EM-MNCs) have become important in almost every industry. India's Infosys and TCS have become two of the world's leading information technology companies. China's Haier is the fourth-largest maker of home appliances in the world, and its ZTE is on its way to becoming one of the world's top five manufacturers of telecommunications equipment and systems.

According to the United Nations Conference on Trade and Development (UNCTAD), multinationals in emerging economies accounted for only 0.4 percent of world outward foreign direct investment (FDI) in 1970. That share grew to 15.8 percent by 2008. Figure 1 illustrates the growth in outward FDI from emerging economies. Alone, emerging nations in Asia and Oceania accounted for 11.9 percent of world outward FDI in 2008; among these nations, China has seen the most dramatic and continuous growth.[1]

Economists are studying these firms in order to understand the business philosophies that could have led to such growth trajectories and the possible impact their presence will have on the international economy.[2]

How Multinationals Start

Firms tend to locate where barriers are easier to overcome. For firms in emerging countries, this initially meant locating in nearby countries with regional, cultural or language ties (so-called South-South FDI). This trend seems to be changing, however, as firms from emerging economies gain prominence: Not only has the share of FDI from the emerging world grown over time, but so has the amount of FDI from the emerging world that is directed into advanced countries (so-called South-North FDI). Figure 2 illustrates the change in the amount of FDI invested in the United States from emerging economies and advanced economies. In 1989, FDI from emerging economies made up 7.2 percent of the total amount of FDI invested in the United States. By 2007, that share had grown to 12.1 percent.[3]

Why Become Multinational?

The traditional explanation for multinational activity is a version of a theory called "the O.L.I. paradigm." Multinationals exploit three sets of advantages: (1) **Ownership** advantages encompass the development and ownership of proprietary technology or widely recognized brands that other competitors cannot use. Empirical analysis shows that multinationals are often technological leaders that invest heavily in developing new products, processes and brands, which are then kept confidential and are protected by intellectual property rights. (2) **Localization** advantages refer to the benefits that come from locating near the final buyers or closer to more abundant and cheaper production factors, such as expert engineering or raw materials (important to agrifood multinationals, for example). (3) Finally, multinationals **internalize** the benefits from owning a particular technology, brand, expertise or patent that they find too risky or unprofitable to rent or license to other firms due to the difficulties of enforcing international contracts.

Still a Black Box

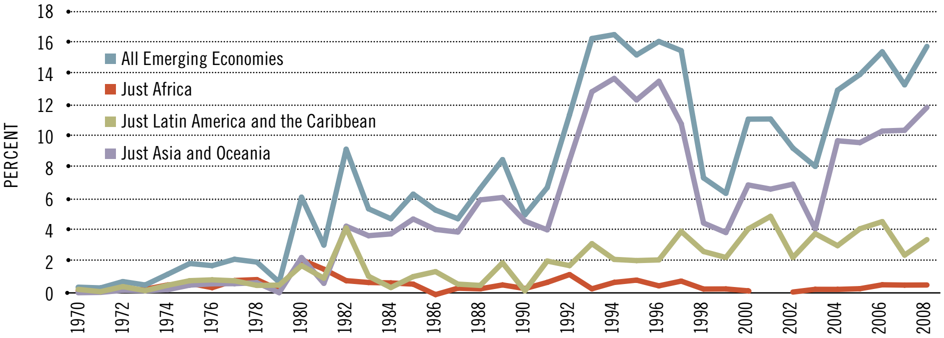
These explanations of multinational activity apply in the case of multinationals from advanced economies, but are less likely to explain the recent trend of multinationals from emerging countries. The 2006 World Investment Report by the UNCTAD shows that firms from emerging countries are very heterogeneous in terms of their origin, maturity, position in the value chain and strategy. This suggests a variety of drivers for internationalization. Such huge heterogeneity makes it difficult to generalize about how EM-MNCs are similar or dissimilar to more traditional multinationals. In fact, there are essentially no theories; the little empirical research available consists mostly of case studies.

EM-MNCs do not usually possess strong global brands or cutting-edge technologies that place them close to the technology frontier.[4] Rather, they often acquire established brands to become well-known—such as the Tata Group of India, which acquired the automobile manufacturers Jaguar and Land Rover—or acquire firms that already developed proprietary technology.

However, this does not mean that they do not possess ownership advantages. One view is that EM-MNCs expand to other countries in order to obtain new advantages to serve as a further springboard for internationalization. One of these advantages is the ability to adapt products developed elsewhere to domestic markets, gaining greater production efficiency by using inputs more efficiently or by using more labor and less capital, or by reducing overhead costs. Some EM-MNCs have advantageous access to resources and markets, and also have "adversity advantages," that is, the ability to

FIGURE 1

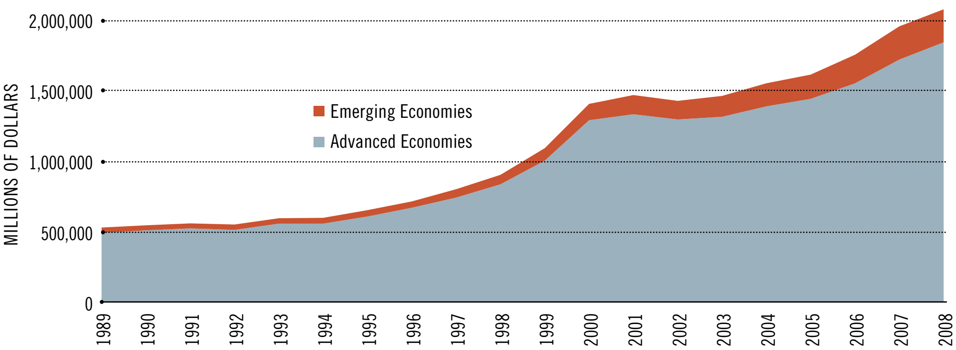
Emerging Economies' Share of Global Foreign Direct Investment Outflows



SOURCE: Authors' calculations based on data from the UNCTAD.

FIGURE 2

Distribution of FDI into the United States, 1989-2008



SOURCE: Authors' calculations based on data from the Bureau of Economic Analysis. Data are normalized and represent the position on a historical-cost basis.

survive poor infrastructure, corrupt bureaucracies, regulatory uncertainties and weak educational institutions—all of which hamper multinationals from advanced economies that operate within emerging economies.

Consequences for Developed Countries

Evaluating the consequences for developed countries is difficult because data are very limited, which makes empirical research challenging. The immediate effect of entry in advanced economies is the introduction of greater competition in input and product markets. Because many EM-MNCs are active in mature products industries, they could encourage less dynamic sectors to become more innovative within host economies and could introduce a reallocation of resources, such as capital and labor, from less efficient to more efficient firms. Consider, for example, the "white goods" industry. Haier, which is partly owned by the Chinese government, opened a factory in South Carolina in 1999, shook up the dormitory refrigerator industry with new types of refrigerators and then expanded into other niches.

If EM-MNCs expand their production into advanced economies by opening new plants or expanding old ones, they may contribute positively to the host country's employment situation. The Haier web site says that more than 95 percent of Haier America's employees in the U.S. are Americans.

Finally, the regulatory frameworks that allow FDI into advanced economies may need revisions in order to balance the protection of national interests, such as national security, defense and access to key resources, without alienating foreign companies.[5] Ω

Silvio Contessi is an economist and Hoda El-Ghazaly is a research associate, both at the Federal Reserve Bank of St. Louis. See http://research.stlouisfed.org/econ/contessi/ for more on Contessi's work.

ENDNOTES

1. The reader should be careful when considering outward FDI statistics of certain countries. According to UNCTAD, emerging market statistics on FDI may be biased due to an issue of "round-tripping," which can inflate FDI flows. Round-tripping is caused by differential treatment of foreign and domestic investors, which could lead to double counting of funds by allowing a country to both channel funds out of and into the country through FDI.
2. International business scholar Ravi Ramamurti points out that it took many years of research to identify firm-specific advantages of Western multinationals. Understanding the advantages and effects of emerging market multinationals may take just as long.
3. Calculated based on data from the Bureau of Economic Analysis' Country of Ultimate Beneficial Owner tables. See www.bea.gov/international/di1fdibal.htm
4. One such exception is Brazil's Petrobras, which is the world leader in the development of advanced technology from deep-water and ultra-deep water oil production.
5. One example of such changes in the U.S. is the latest installment of FDI regulation, the Foreign Investment and National Security Act of 2007, which establishes a framework for the review of foreign acquisitions of U.S. assets by the Committee on Foreign Investment in the United States (CFIUS). The reform of the CFIUS had gained impetus after the sale of port management businesses in six major U.S. seaports to a company based in the United Arab Emirates.

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Flight to Safety and U.S. Treasury Securities

By Bryan Noeth and Rajdeep Sengupta

PHOTO USED WITH PERMISSION FROM THE BUREAU OF PUBLIC DEBT

Government debt of the United States is typically issued in the form of U.S. Treasury securities. These securities—simply called Treasuries—are widely regarded to be the safest investments because they lack significant default risk. Therefore, it is no surprise that investors turn to U.S. Treasuries during times of increased uncertainty as a safe haven for their investments. This happened once again during the recent financial crisis. In fact, the increase in the demand for Treasuries was sufficiently large so that prices actually rose with an increase in the supply of government securities.

Supply of Government Securities

In the latter half of 2008, the Treasury auctioned a large amount of securities to cover the cost of the Emergency Economic Stabilization Act.[1] After the act was passed, holdings of U.S. marketable Treasury securities continued to increase over the next year and a half, from \$4.9 trillion in August 2008 to \$7.4 trillion in February 2010. Figure 1 shows the levels of short- and long-term securities outstanding from 2006 to 2009.

Short-term securities are also known as Treasury bills; they have maturity dates of less than a year.[2] In August 2008, approximately \$1.2 trillion in T-bills was outstanding. By November 2008, that number had almost doubled, to about \$2 trillion in outstanding short-term debt.

Long-term Treasury securities, which include Treasury notes, Treasury bonds and Treasury Inflation Protected Securities (TIPS), are defined as having a maturity date of over a year.[3] Before the onset of the current financial crisis, there was a slight upward trend in the volume of these securities. Since October 2008, there has been a significantly large upward surge in the amount of T-notes issued, while the level of TIPS and T-bonds has remained relatively unchanged.

In sum, financial markets have witnessed a significant increase in the supply of Treasuries (level of debt issued by the government) in recent times (Figure 1).

Interest Rate Response

Interest rate activity after the mortgage crisis of 2007 also seems to provide evidence that would suggest that investors found safety in U.S. Treasuries, especially T-bills. Figure 2 shows the yields on the three-month and 10-year Treasuries, as well as those on Moody's Aaa and Baa corporate bonds.[4] Corporate bonds carry a risk that the corporation issuing this debt security will default on its obligations. For taking this relatively higher risk, investors are rewarded with a higher yield than they would get if they had invested in long-term Treasuries. As seen in Figure 2, there was no significant change in this difference of yields (spread) before the onset of the current financial crisis.

However, when the mortgage market began to slide in August 2007, yields on short-term Treasuries fell sharply. Although the supply of Treasuries was relatively constant in the second half of 2007 and the first half of 2008, yields on both short-term and long-term government securities continued to fall. The larger decline in the short-term Treasuries reflects the greater demand for liquidity during this period as investors were increasingly reluctant to buy longer-term assets. The uncertainty in the mortgage market also encouraged investors to switch from other debt instruments, such as mortgage-backed securities, into government securities. All this while, changes in the yields on corporate bonds were smaller because investors believed that the increased credit risk was primarily concentrated in the mortgage market.

Nonetheless, the collapse of Lehman Brothers on Sept. 15, 2008, signaled the beginning of a financial panic. Increased selling pressure by panic-stricken investors lowered prices and raised yields on corporate bonds (Figure 2). At the same time, investors increased their demand for safer assets, namely U.S. Treasuries, and this led to a further decline in the yields on U.S. Treasuries. Yields on short-term U.S. securities decreased sharply to near zero in November (Figure 2). However, the movement in long-term Treasury yields was sluggish—hovering about 4 percent before falling to about 2 percent in December 2008. In part, this later decline was also prompted by the Federal Reserve's measures to buy long-term Treasuries under its large-scale asset purchase programs.

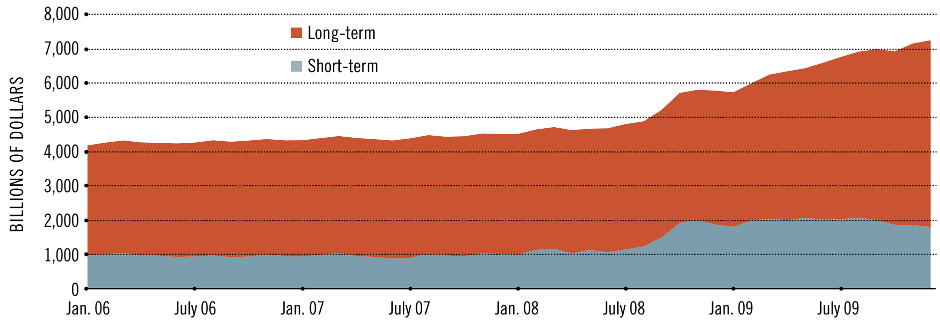
In summary, there has been a large expansion in the amount of Treasury security offerings while yields on Treasuries have actually declined. Stated differently, the prices on Treasury securities have actually increased in the face of a rapidly expanding supply of these securities. This anomalous behavior in the market for Treasuries can be explained by a significant increase in the demand for Treasuries—"the flight to safety" in the event of a financial crisis. Evidently, the effect of the increase in the supply of securities in government auctions was more than offset by the increase in investors' demands for safer investments.

Who Holds This Debt?

Figure 3 shows the quarterly flow of funds data on the holdings of U.S. Treasuries by various sectors of the economy. Prior to the crisis, the proportion of Treasury securities held by each sector of the economy was

FIGURE 1

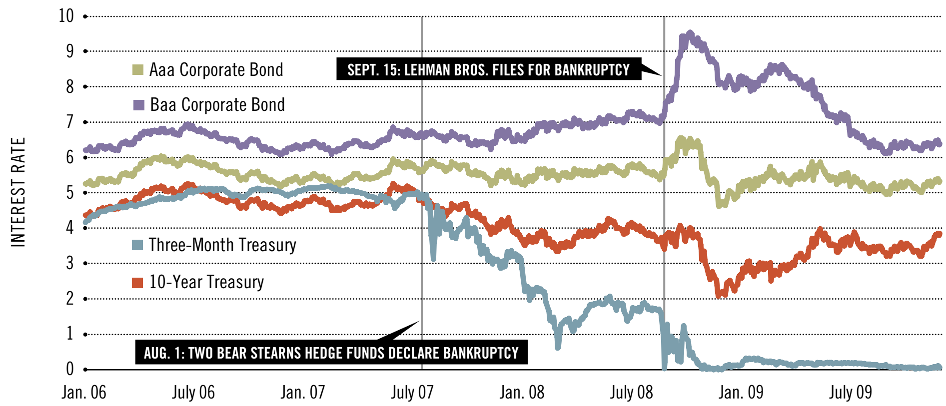
Levels of U.S. Treasuries Outstanding



SOURCE: Haver NOTE: Monthly Data

FIGURE 2

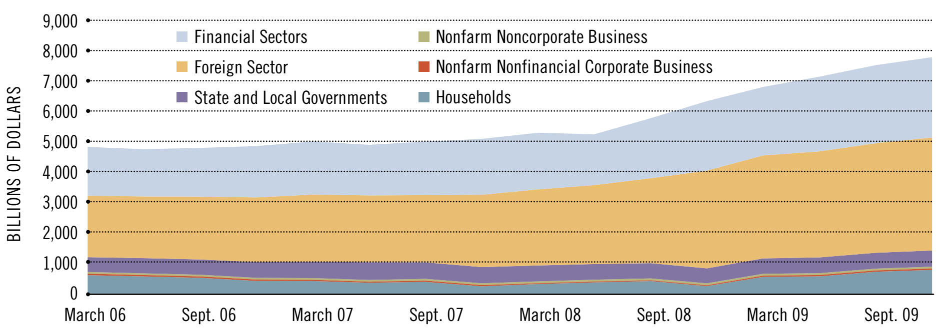
Selected Yields



SOURCE: Haver NOTE: Daily Data

FIGURE 3

Holders of U.S. Debt



SOURCE: Haver NOTE: Quarterly Data

roughly unchanged over the early part of this decade. The largest shares of available Treasury securities have been held by the domestic financial sector and the rest of the world. Post-crisis, these two sectors saw the most dramatic increases in their share of Treasury securities holdings. Interestingly, it seems that although the U.S. was at the epicenter of the financial crisis, both foreign and domestic investors still sought the safety of U.S. government debt instruments. These data present evidence in support of the hypothesis that investors see U.S. Treasuries as relatively risk-free. However, it will be interesting to see how investors view U.S. securities in the future as debt levels continue to rise. Ω

Rajdeep Sengupta is an economist at the Federal Reserve Bank of St. Louis. See http://research.stlouisfed.org/econ/sengupta/ for more on his work. Bryan Noeth is a research analyst at the Bank.

ENDNOTES

1 The Emergency Economic Stabilization Act was passed Oct. 3, 2008. It was a $700 billion program aimed at getting bad assets off the books of firms in the U.S. financial sector.
2 Treasury bills (T-bills) have maturities of about a month, three months, six months or a year. These are generally auctioned by the Treasury once a week.
3 Treasury bonds (T-bonds) have maturities from 20 to 30 years. Treasury notes (T-notes) have maturities that range between one and 10 years. TIPs have maturities between five and 30 years. The Treasury has various auctions of these securities throughout the year.
4 The yield (to maturity) is defined as the interest rate that makes the present value of a bond's payments equal to its price. Therefore, the higher the price on the bond, the lower is its yield.

Tennessee Town Pins Hopes on Being Transportation Hub

Article and photos by Susan C. Thomson

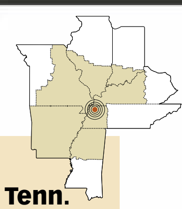
Union City, Tenn., has waited years for Interstate 69. Finally, a 19-mile stretch of the Canada-Mexico superhighway is under construction at the town's edge. It's just one part of an all-modal transportation system in the making. Other parts are:

- the local general-aviation airport, where the single runway is being lengthened to 6,500 feet from 5,000;
- a port in the very early stages of development 25 miles west of town on the Mississippi River; and
- railroads that have crossed here since the 19th century and gave the town its name.

The all-modal system is the economic future of Union City, surrounding Obion County and several counties beyond, says Jim Cooper, executive director of the Obion County Joint Economic Development Council. It can make this corner of northwestern Tennessee an unbeatably attractive location for businesses that make and ship goods, he says.

The key players are cooperating to make this vision a reality. Obion County and Weakley County, next door to the east, have paired to operate and improve the airport. Together, they secured $12 million in state and federal grants, which are paying for the runway extension and have been used to renovate old hangars and to build new ones, along with a new access road and new fuel tanks. Pending further government approvals and financing, plans call for extending the runway another 500 feet.

Lake County to the west and Dyer County to the south have joined Obion in a three-way



Union City/Obion County, Tenn. by the numbers

Union City Population	10,569 *
Obion County Population	31,431 **
County Labor Force	15,102 ***
County Unemployment Rate	9.9 percent ***
County Per Capita Personal Income	$31,824 ****

* U.S. Bureau of the Census, estimate July 1, 2008
** U.S. Bureau of the Census, estimate July 1, 2009
*** HAVER (BLS), April 2010
**** BEA/HAVER, 2008

TOP EMPLOYERS

Goodyear Tire and Rubber Co.	2,000
Tyson Foods Inc.	1,100
Kohler Co.	540
Baptist Memorial Hospital	450
Lennox Hearth Products	350

SOURCE: Obion County Joint Economic Development Council partnership to develop the port. Earlier this year, the federal government denied their application for a $35 million grant that would have sped completion of the $40 million project. Dredging, grading and cleanup continue at the site as the partners seek smaller federal and state grants.

Obion, Weakley and Lake counties have even gone on to enlist Fulton and Hickman counties just over the Kentucky line in an alliance to market all five counties together as one region.

"We've already got more going on than anybody in western Tennessee, any community," Cooper says. And the borderless approach to economic development "will pay monstrous dividends down the road."

Union City, the rural region's shopping and employment hub, isn't waiting. On its own, the city has built a $3 million, 550-acre industrial park. Plans call for putting up one spec building at a time, using the sale money to build the next. As many as two dozen could fit. Greenfield Products, a newcomer to town that makes cranes and other equipment for loading and unloading trains, barges and ships, bought the first building three years ago. It paid $2.1 million for 72,500 square feet. The second building, with 100,000 square feet, is now on the market.

The city will sell all of the park's buildings at cost and is prepared to offer owners real estate tax abatement. (Greenfield, for instance, was forgiven half its bill for 15 years.) Otherwise, would-be buyers find enough incentive in Tennessee's being a right-to-work state with no income tax, Cooper believes.

Planners look to the park to diversify the area's jobs base, decreasing the risks inherent in its current dependence on a few, big brand-name employers.

The goal takes on urgency in light of uncertainty surrounding Goodyear, by far the region's biggest employer. The plant's payroll has shrunk by half from its peak in 2002. The plant is the only one of Goodyear's seven U.S. factories that is not protected from closing under a four-year contract signed last year with the United Steelworkers. The company has neither explained why nor signaled its plans.

"We're worried about Goodyear," admits Obion County Mayor Benny McGuire.

The plant's closing would cost the county 6 percent of property tax receipts and 10 percent of its sales taxes receipts, he says.

The other three big industries raise no such alarms. McGuire calls Tyson, the chicken processor, and Kohler Co., which makes shower doors in Union City, "real solid" employers. He notes that the Lennox Hearth Products plant, which manufactures indoor and outdoor fireplaces, has been calling employees back after layoffs.

"I think all three are going to be around here for a long time," he says.

Having grown up on a farm and worked 36 years for Goodyear, McGuire has personally lived the most recent chapters of the Union City area's economic history. As he says, "Everything started with agriculture in this county." To this day, the county is one of the state's top producers of corn and soybeans.

As farms got bigger and more efficient, manufacturers moved in, taking advantage of the leftover, hard-working labor. The availability of both labor and grain attracted Tyson, says John Clark, president of First State Bank, which has 28 branches and is headquartered in Union City. Tyson ranks as the area's No. 2 employer.

Smaller companies have come and gone over the years, says J. Lee Fry, second-generation president of Dixie Gun Works. His 21-employee company is one of the constants, selling antique and reproduction firearms to hobbyists all over the world now, thanks to the Internet.

Another stalwart is 70-year-old Jiffy Steamer Co., which does a global business in garment steamers. "Our business is here today because of the people," President Bill Simrell says of the 40 people he employs.

Opposite page: Work has finally begun on the 19-mile stretch of I-69 being built around Union City. The interstate will eventually connect Canada to Mexico, going through the heart of the U.S.

Top of this page: The single runway at the local general aviation airport, Everett-Stewart Regional Airport, has already been extended and another extension is in the plans.

Above: At the 70-year-old Jiffy Steamer Co., garment steamers are made for shipping around the world. Here, Mike Barnes machines aluminum castings. The 40-employee company is one of many small, successful operations that have kept the local economy afloat over the decades.

Top left: The E.W. James & Sons supermarket in Union City is one of 20 in a chain that spans four states. The chain keeps its headquarters in Union City because of low cost, says Lee Ann James, CEO.

Top right: Despite its small size, the Union City area is said to have more than its share of millionaires. Many have shared their wealth on such public projects as the Obion County Public Library, which opened in 2003 at a cost of $5.5 million.

Above: Robert Kirkland (in cap) is a major benefactor to the area. A foundation that he and his wife, Jenny, established provides day care for low-income children and has promised more than $50 million for the planned Discovery Park of America, a history museum with outdoor exhibits. With Kirkland is James Rippy, a childhood friend and insurance executive who is shepherding the construction of the museum.

Low cost is why E.W. James & Sons keeps its 130-person headquarters in town, says Lee Ann James, chief executive of the chain of supermarkets. Her grandfather founded the company, which now has 20 supermarkets in four states.

Overall, many of the small and medium-sized businesses had a surprisingly good year in 2009, despite the sluggish economy, says Art Sparks, a partner in Alexander Thompson Arnold, a regional CPA firm that is based in Union City. While professional ethics prevent him from naming names, he's privy to the tax returns of many of these local businesses and their owners.

Clark, the banker, reports that local farmers are also doing well, benefiting in part from historically high land prices. With weather good and commodities prices "generally favorable" for the past several years, farm profits have trickled down to implement dealers, veterinarians and sellers of seeds and chemicals, he says.

The rich land has been a major source of the area's storied amount of private wealth, which has also come from retailing, real estate and other ventures. It is often said, without benefit of data, that there must be more millionaires per capita in these parts than in any similar area.

Many have gone on to become social entrepreneurs, giving of their millions for the public betterment. Their money has built ball fields, renovated downtown buildings, endowed college scholarships and built the $5.5 million Obion County Public Library, which opened in 2003.

As a former army officer, Derick Ziegler has moved many times. Relocating to Union City two years ago from Honolulu to be chief executive of Memorial Baptist Hospital, he was astonished to discover "the most benevolent community" he has ever lived in.

Some old family money remains in the area, under the careful management of the second and third generations, says Jack R. Parker, president of Union City Commercial Bank and Trust. "I think the community will continue to reap the benefits of it."

Union City also has a history of "a variety of people who were movers and shakers and got things done," says Terry Hailey, a radio station owner and the city's mayor.

The leading example to date of these can-do and philanthropic spirits is Robert Kirkland, who built the Kirkland's chain of gift and home accessories shops. The Robert E. and Jenny D. Kirkland Foundation, established with his wife, provides day care for 300 low-income preschool children a year. The foundation has also provided $54 million to develop the Discovery Park of America, a history museum with outdoor exhibits, and will set up an endowment to operate it and make acquisitions.

A dispute with the original architect over the museum's design set the work back. With a new architect and a new design now, it is set to resume later this year. Kirkland says he's doing this for the entertainment and education of local schoolchildren. James Rippy, a Union City insurance executive who chairs the project, adds that it could also draw thousands of tourists.

Interstate 69 will border the park's 50-acre site on one side. The first phase, including the museum, is projected to open in another 2½ years or so, about the same time the highway work is done. Ω

Susan C. Thomson is a freelancer.

Economy Is Nearing Cruising Altitude

By Kevin L. Kliesen

Although the trajectory has been flatter and the ride a little bumpier than usual, the U.S. economy continues to gain momentum. Real GDP has increased for three consecutive quarters (through 2010:Q1), private-sector hiring is picking up, and inflation and inflation expectations generally remain low and stable. Still, the unemployment rate remains stubbornly high because of continued weakness in the residential and commercial construction sectors and because of lingering strains in the financial markets. Moreover, as the developments in Europe suggest, the huge accumulation of government debt in the advanced economies poses risks to the world economy. Minimizing these risks will be key to maximizing the economy's growth potential.

Turbulence Is Limited So Far

Real GDP, which measures the production of final goods and services in the economy, rose at an annual rate of 2.7 percent in the first quarter of 2010. A key part of the economic recovery recently has been the inventory cycle, which traditionally boosts growth during the early stages of a business expansion. As rising employment and real incomes boost the demand for goods and services, economic activity eventually surpasses its pre-recession levels, production and hiring pick up, and the expansion becomes self-sustaining—until another shock pushes the economy back into recession.

As the U.S. economy heads into the second half of 2010, the expansion appears to be following this self-sustaining pattern. In particular, outlays by consumers and businesses generally continued to strengthen, and the pace of U.S. exports remained brisk, consistent with the projected strengthening in the global economy outside of Europe. More broadly, other key measures of economic activity also augured well for the economy. These include the manufacturing and nonmanufacturing purchasing managers indexes, the index of leading indicators, and rising levels of confidence by large-company CEOs. (Confidence among small firms was much less buoyant.)

Housing and the commercial real estate industry have been a festering problem, but there are some signs that the worst has passed. One lingering worry is the strength of the housing industry without the support of the homebuyers tax credit. But with the economy strengthening and mortgage rates still low, home sales and construction activity should begin to increase from their low levels, albeit modestly.

Labor markets are improving. In May, total nonfarm payrolls rose by 431,000, but private nonfarm payrolls rose by only 41,000; the increase in private employment was less than the market expected. At the same time, the unemployment rate remained near 10 percent in May, and the percentage of the labor force unemployed for 27 weeks or longer remained at record-high levels. With a relatively lean work force coming out of the recession, the gradual strengthening of the economy should cause firms to continue adding to their work force.

Turbulence rose anew in May and June, as actions taken to address large and protracted budget deficits in Greece and a few other European countries caused financial markets to reassess the prospects for Europe's recovery. These concerns soon migrated to the United States, causing some to worry about the potential effects of a European slowdown on the U.S. economy. At this point, it is too soon to say how large these effects might be, but U.S. exports to the euro area countries comprised only 15 percent of total U.S. exports in 2009. Still, the sovereign debt crisis comes at a time when stresses to the U.S. financial system are keeping bank failures and nonperforming loans at elevated rates.

Inflation under Control

The news on the inflation front remains good, and Fed policymakers continue to see low and stable inflation over the next few years. Accordingly, the FOMC appears to be in no hurry to depart from its extraordinarily accommodative policy. If anything, low inflation, continued high unemployment and developments in Europe may keep the Fed on hold for a longer period of time than some analysts had anticipated a few months ago. That said, an unexpected surge in economic activity, coupled with the huge amount of excess reserves on bank balance sheets, may lead to an unwanted acceleration in money growth, which could destabilize financial markets and cause an increase in inflation expectations. Fed officials are keenly aware of these risks, but they believe they have put in place policies to keep inflation low. Forecasters generally agree: They expect inflation of 2 percent or less over the next year and a half. Ω

Kevin L. Kliesen is an economist at the Federal Reserve Bank of St. Louis. Go to http://research.stlouisfed.org/econ/kliesen/ for more on his work. Douglas C. Smith provided research assistance.

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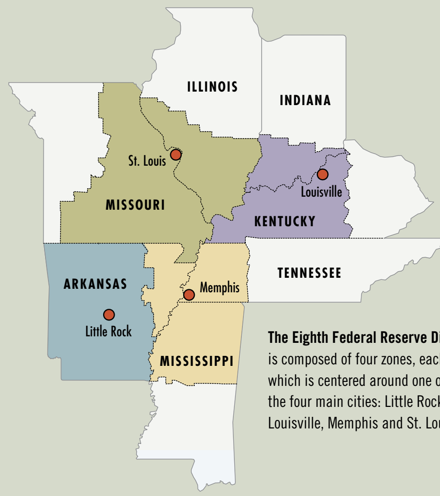
Should Real Estate Prices Be Falling More in the Eighth District?

By Alejandro Badel and Christopher Martinek



The Eighth Federal Reserve District is composed of four zones, each of which is centered around one of the four main cities: Little Rock, Louisville, Memphis and St. Louis.

One of the most important economic events of the last decade is the real estate boom and bust. National house prices, as measured by the Federal Housing Finance Agency (FHFA), increased 70 percent since 2000 to a peak in the second quarter of 2007. Since then, national home prices have fallen roughly 15 percent.

House prices in the Eighth District also appreciated over the period, but the boom/bust process was less-pronounced. House prices in the Eighth District increased 40 percent to a peak in the first quarter of 2008 and have fallen roughly 5 percent since then. By partly avoiding the sharp decline in prices experienced in other areas, it appears that the District has fared better than the nation.[1] Has it?

Prices that don't fall aren't always a good sign. The labor market is a useful example of this. One of the most controversial puzzles in macroeconomics is why wages (real and nominal) do not fall more during recessions in reaction to high unemployment. Under some conditions, falling wages would reduce unemployment and improve economic efficiency in downturns.[2]

Vacant real estate properties can be partly thought of as unemployed workers. These properties are resources ready to be put to some kind of use. As another step toward determining whether Eighth District real estate markets are faring better than the nation's, it is informative to look at the behavior of vacancies. How large is the fraction of vacant home and business structures in the Eighth District? How does that fraction compare with the rest of the nation's? How has this fraction behaved over the real estate boom and bust? This District Overview uses several data sources that complement one another in order to answer these questions.

Vacancies from Survey Data

The first source of data consists of survey-based estimates of residential vacancies collected by the U.S. Census Bureau. Figure 1A displays average homeowner vacancy rates in normal times and in distressed times for the three largest metropolitan statistical areas (MSAs) in the Eighth District, the nation's total and two additional comparison MSAs.[3] Clearly, vacancy rates have increased everywhere since the beginning of the crises. Figure 1A also demonstrates that in both normal and distressed times, residential vacancy rates in Louisville and St. Louis are roughly equal or slightly lower than in the nation as a whole. In contrast, vacancy rates in Memphis exceed the national level during both periods. Interestingly, Memphis is also atypical in terms of prices. Memphis has experienced deeper price declines than the rest of the District since the onset of the crisis.

In general, the milder decline in Eighth District residential prices compared with the U.S. was not accompanied by a larger increase in rates of vacancy. This suggests that, compared with the rest of the country and using increases in vacancies as a rough indicator, prices in the District are not "too high."

The second source of data consists of survey-based estimates of industrial vacancies as compiled by real estate firm CB Richard Ellis. Figure 1B paints a different picture for industrial vacancy rates than for residential vacancy rates. Although industrial vacancy rates are higher in all geographic areas in the recent period of distress, St. Louis experienced substantially larger increases in industrial vacancies than did the country or Chicago.

The next source of data allows us to track the behavior of each quarter since the start of the recession. Is the situation moving back to normal?

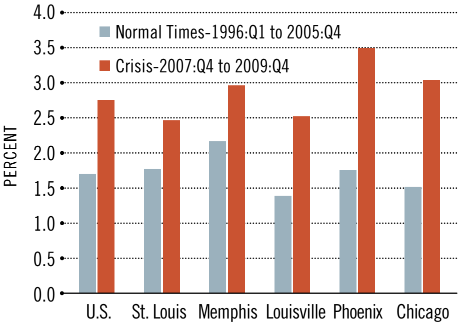
Vacancies from HUD-USPS Data

The Department of Housing and Urban Development (HUD) assembles data on vacancies provided by the U.S. Postal Service (USPS). These data have the immense advantage of including all residential and business addresses in the nation. The main disadvantage is that data are only available since the start of the recession, when the real estate crisis was already well-advanced. The USPS classifies each address as "occupied," "vacant" or "no status."

In Figure 2A, residential vacancies show no strong movements since the start of the

FIGURE 1A

Residential Vacancy Rates

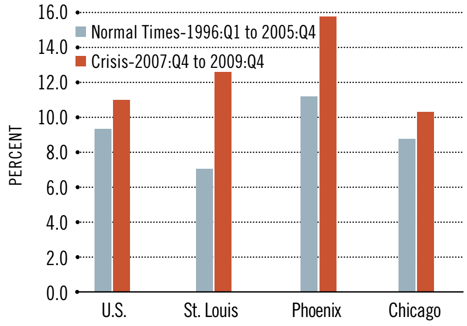


NOTE: The Census Bureau provides data for the 75 largest MSAs in the country. Data are not available for Little Rock.

SOURCE: Census Bureau/Haver Analytics

FIGURE 1B

Industrial Vacancy Rates

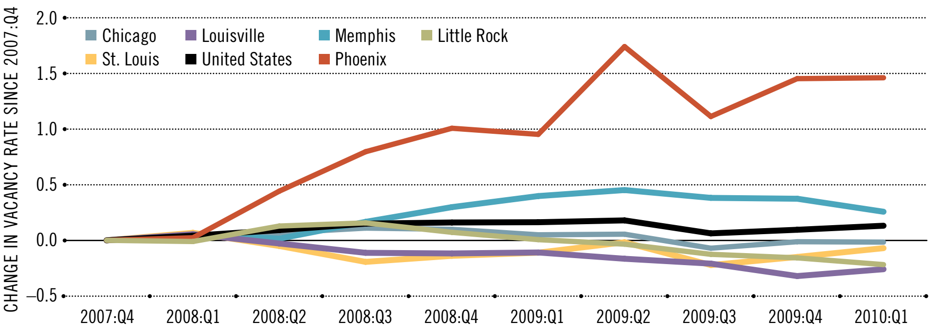


NOTE: Eighth District data only available for St. Louis.

SOURCE: CB Richard Ellis/Haver Analytics

FIGURE 2A

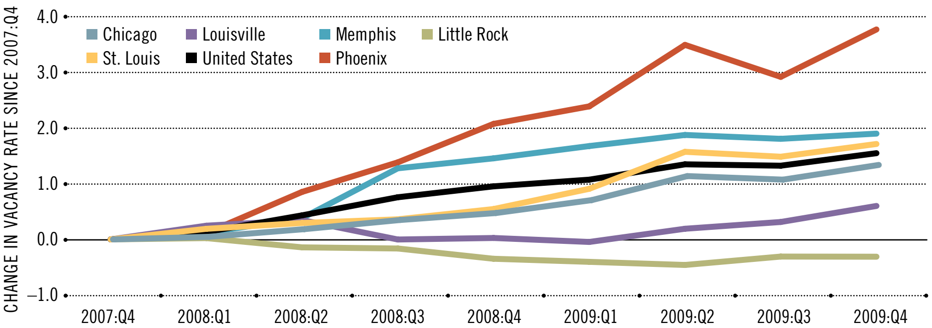
Residential Vacancy Rates



SOURCE: U.S. Department of Housing and Urban Development (HUD)

FIGURE 2B

Business Vacancy Rates



SOURCE: U.S. Department of Housing and Urban Development (HUD)

NOTE: The data are geographically coded from ZIP+4 to census tracts by HUD. The data are then aggregated to the MSA level by the authors. The vacancy rates in this figure ignore the "no status" category reported by the USPS. It is possible that this category contains vacant addresses; see http://www.huduser.org/portal/datasets/usps.html for details. Additional analysis that treats the "no status" category as vacant yields similar conclusions.

recession. This is true for the nation and for most of the MSAs analyzed with the exception of Phoenix and the District's own Memphis, where vacancies were higher by March 2010 than at the start of the recession. A promising sign is that the residential vacancy rate in Memphis has decreased slightly for several quarters.

In contrast, Figure 2B shows that business vacancies are on the rise both in the

(continued on Page 26)

ENDNOTES

[1] See Aubuchon and Bandyopadhyay.

[2] See Bewley for a lucid discussion.

[3] The Census Bureau provides vacancy data for the 75 largest MSAs in the country. Little Rock is not among them.

REFERENCES

Bewley, Truman F. *Why Wages Don't Fall during a Recession*. Cambridge, Mass.: Harvard University Press, 1999.

Aubuchon, Craig P.; and Bandyopadhyay, Subhayu. "Decline in House Prices Slows Down; District Still Faring Better than Nation." *The Regional Economist,* April 2010, pp. 18-20.

(continued from Page 25)

nation and in most District MSAs, with the exception of Little Rock.

Conclusions

Vacancy rates are informative in interpreting the behavior of real estate prices in the Eighth District as "better" or "worse" than in the country as a whole. Although prices didn't fall as much in the Eighth District as in the country, vacancy rates did not rise as much either. This roughly supports the view that prices should not be falling more in the Eighth District.

However, residential vacancies show no clear sign of heading back to normal times in the District or in the country, while business vacancies are on the rise. Sluggish marketing of foreclosed properties, legal barriers to the sale of underwater properties by their owners, the unwillingness of households and businesses to enter neighborhoods with high foreclosure rates, and/or the overabundance of unfinished real estate projects are among the candidates for explaining the persistence of high vacancy rates. Ω

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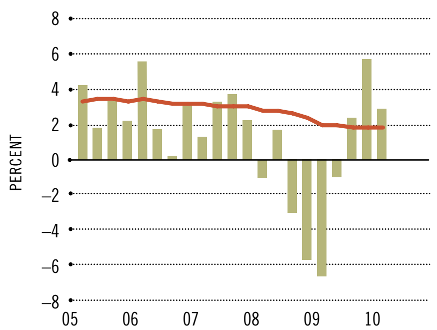
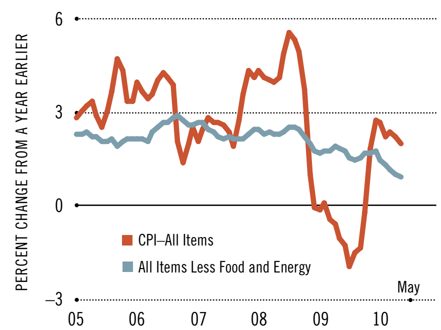
Eleven more charts are available on the web version of this issue. Among the areas they cover are agriculture, commercial banking, housing permits, income and jobs. Much of the data is specific to the Eighth District. To go directly to these charts, use this URL: www.stlouisfed.org/publications/re/2010/c/pdf/07-10data.pdf

REAL GDP GROWTH

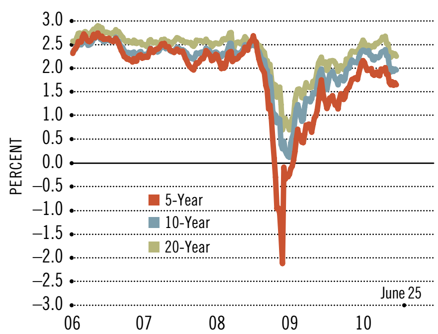


NOTE: Each bar is a one-quarter growth rate (annualized); the red line is the 10-year growth rate.

CONSUMER PRICE INDEX

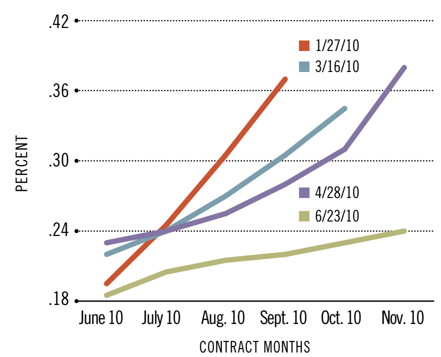


INFLATION-INDEXED TREASURY YIELD SPREADS

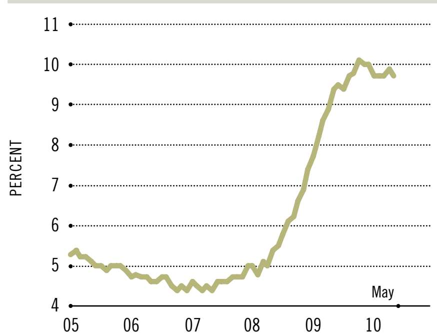


NOTE: Weekly data.

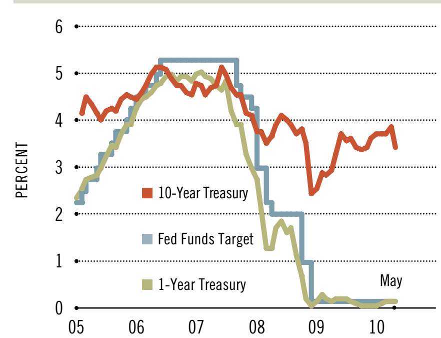
RATES ON FEDERAL FUNDS FUTURES ON SELECTED DATES



CIVILIAN UNEMPLOYMENT RATE

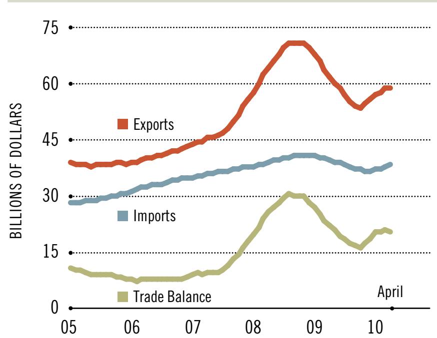


INTEREST RATES



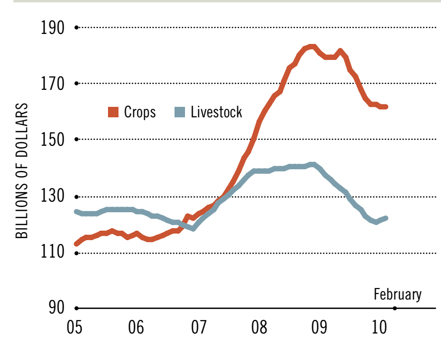
NOTE: On Dec. 16, 2008, the FOMC set a target range for the federal funds rate of 0 to 0.25 percent. The observations plotted since then are the midpoint of the range (0.125 percent).

U.S. AGRICULTURAL TRADE



NOTE: Data are aggregated over the past 12 months.

FARMING CASH RECEIPTS



NOTE: Data are aggregated over the past 12 months.

ASK AN ECONOMIST

Alejandro Badel joined the St. Louis Fed's research staff in 2009 after graduating from Georgetown University in Washington, D.C. His current research is focused on various aspects of household heterogeneity in the U.S. economy. Badel enjoys spending most of his free time with his fiancee and their two pets. For more on his work, see http://research.stlouisfed.org/econ/badel/

Why are U.S. cities so segregated by race? Why should we care?

Many U.S. cities display a "chocolate city – vanilla suburbs" pattern.[1] Although nobody knows for sure why, there are several plausible reasons. As economists, we start with two reasons, concerning preferences and budgets, that may play a role in separating colors in the U.S.

The first force that has been analyzed since the seminal work of Thomas Schelling (winner of the 2005 Nobel Prize in economics) is a preference of each color to be around its own color.[2] In particular, Schelling imagined situations in which white households decide where to live using a cutoff rule. If the neighborhood's white population goes below a certain cutoff, they leave. He showed how mixed-race neighborhoods tend to disappear under these conditions, leading to a lot of segregation even when not everybody's cutoff is super high. Why this racial preference exists and how it evolves make up a separate puzzle.

A second force that has been somewhat analyzed is budgetary. For reasons that are unclear and controversial, on average, white households have much higher incomes than black households. This implies that the segregation by race that we observe could be just segregation by income. In other words, there can be segregation by color because only white households can afford the expensive neighborhoods. While this is partly true, some studies have found a significant number of black households that have the means to live in the suburbs yet don't do it. Although I know of no studies that directly report on lower-income white households that struggle too hard to live in the suburbs, this also seems plausible. Therefore, budgets don't seem to tell the full story. A combination of preferences, budgets and other forces seems more plausible.

Why should we care? One important reason to care about segregation by race is related to children. More-expensive neighborhoods usually provide better schools, less noise, less pollution, less crime and better social connections. One may think of these features of neighborhoods as expanding the opportunities parents have to improve the future of their children. Therefore, too much segregation of black households into low-cost neighborhoods could in principle stack the deck against some children.

[1] This playful expression is commonly found in the sociological literature that studies segregation, where it is used non-pejoratively. Apparently, it was first coined in a 1975 album by the funk band Parliament.

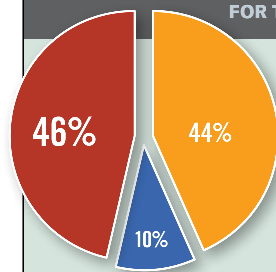
[2] Schelling, Thomas C. "Models of Segregation." *American Economic Review*, May 1969, Vol. 59, No. 3, pp. 488-93.

Submit your question in a letter to the editor. (See Page 2.) One question will be answered by the appropriate economist in each issue.

FED FLASH POLL RESULTS

When a new issue of *The Regional Economist* is published, a new poll is posted on our web site. The poll question is always related to an article in that quarter's issue. Here are the results of the poll that went with the April issue. The question stemmed from the article "Economic Hangover: Recovery Is Likely To Be Prolonged, Painful."

WHICH SCENARIO DO YOU THINK IS MOST LIKELY FOR THE WORLD ECONOMY?



- Economic restructuring stalls. Stimuli end. Private spending slows. Economies tank.
- Countries don't coordinate policies. Trade imbalances return—in spades. Boom followed by bust (again).
- "Big spender" countries (especially U.S.) live within their means, and miserly countries (especially China) break open the piggy bank.

363 RESPONSES AS OF 6/28/2010

THIS ISSUE'S POLL QUESTION:

Should society invest in high-quality early childhood education programs for disadvantaged children?

1. Yes, but only if funding is provided by private sources.
2. Yes, and use tax dollars because the investment will save taxpayers in the long run.
3. No. This is the family's responsibility.
4. No. Society has higher priorities at this time.

After reading "A Bleak 30 Years for Black Men" on pp. 4-9, go to www.stlouisfed.org/publications/re to vote. (This is not a scientific poll.)

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NEXT ISSUE

What's behind FOMC Disagreements?

Safe to say, the recent recession has forced the members of the FOMC to make some tough policy decisions. These policy decisions, however, have not been made without some disagreement among the members. But what are the sources of this disagreement? One may be that presidents of regional Federal Reserve banks come to the table with specific information about the economy in their respective districts—information that could vary significantly district by district. Does this perspective influence their views, or do the presidents simply disagree about how various policies will affect the economy as a whole? In the October issue of *The Regional Economist*, read an analysis based on data released last year on presidents' individual forecasts made from 1992 to 1998.