

RESEARCHBUZZ

WHY ARE INTEREST RATES SO LOW?

BY DR. JOHN A. TATOM

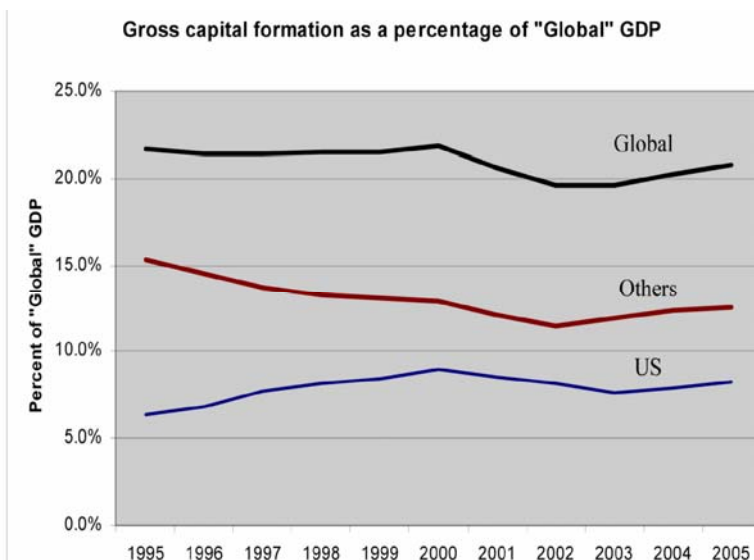
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Interest rates are widely regarded as unusually low. Former Fed Chairman Alan Greenspan pointed to one aspect of this when he spoke of the “conundrum” that the Fed began tightening monetary policy in May 2004, yet longer-term interest rates fell.¹ Chairman Ben Bernanke went further, suggesting that interest rates were being depressed by a global excess of saving.² In a recent article in Networks Financial Institute’s *Financial Focus*, I explained that lower interest rates could as readily result from low demand for new capital financing as from unusually large saving.³ Moreover, I showed that there had been no appreciable change in US saving since 2001, with an adjusted gross saving rate steadily hovering at the lowest levels since 1948, about 10 percent of GDP.⁴ At least for the US, it does not appear that excessive saving has depressed interest rates, especially not lately when the saving rate has not changed.

This note looks at whether capital spending and its financing have been weak, possibly accounting for declining real interest rates. Private investment has been weak by historical standards and this has probably reflected low rates of return to global investment, as well as significant changes in the prices of capital goods relative to other goods and services. The first reason is a serious threat to the world economy because, if it continues, world capital formation will be depressed and hold back advances in productivity and economic development. The second reason is more benign: the

Global capital spending is lower since 2000.

“Global” includes the 25 members of the European Union, the United States and Japan.



Source: Eurostat, Bureau of Economic Analysis

same pace of capital formation requires less financing because capital goods have been declining in relative price. Thus, a lower share of spending on capital goods has masked one of the highest levels of US real investment on record. Unfortunately the decline in capital spending is probably too large to be explained by price developments. Instead it is likely that real private capital formation is in decline.

Global capital spending has weakened over the past decade, but not in the US

Chart 1 shows that global gross capital formation has declined relative to GDP since 2000 for the 25 countries of the European Union, the US and Japan. These 27 countries account for most of world GDP and are referred to as the “global” total here. Global gross capital formation was fairly steady at about 21.5 percent of GDP from 1995 to 2000, but then fell, reaching a low of 19.6 percent in 2002-03 and recovered slightly in 2003-05. By 2005, it was about 1.1 percent of GDP lower than it had been in 2000, the equivalent of about \$335 billion.

This decline is not so apparent in the US because, as the graphic on the next page shows, gross capital formation has not been as weak here. Indeed, US gross capital formation rose from about 6.3 percent of global GDP to a peak of 8.9 percent in 2000, then fell to about 7.7 percent in 2003 and rebounded to 8.2 percent of global GDP in 2005. In every year since 2000, except for 2003, US gross capital formation was larger than its new economy average of 7.7 percent of global GDP. In contrast, the rest of the world’s gross capital formation fell in 2000 and then fell even more until 2003. There has been a rebound in 2004-05, but in the rest of the world, gross capital formation has been lower in every year since 2000 than it was in 2000 and even lower than its 1995-2000 level. Thus it is not surprising that the decline in capital formation is less noticeable in the US: it is a smaller decline and leaves the US at a near record pace of capital formation. For the global comparison, however, gross capital formation has been lower for the past five years than in the earlier six years.

Gross capital formation is a nominal measure and so it measures spending, not units of capital or capital services. This is the appropriate measure because this is what has to be financed and the measure that influences interest rates. Underlying both observed interest rates and spending, however, are real measures of capital formation, and it is the real measures that influence the productivity of capital and the real component of interest rates. Since the relative price of capital goods has been falling, a given share of GDP spent on gross capital formation can buy more capital goods than otherwise so that real spending is higher relative to real GDP than the nominal measure indicates. For the US, this makes a great deal of differ-

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EFFECT OF REGULATION FAIR DISCLOSURE ON INFORMATION IN ANALYSTS' RATING CHANGES

AUTHOR SUMMARY

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Forthcoming in the Financial Analysts Journal, May/June 2006

The U.S. SEC's Regulation Fair Disclosure was first drafted in December 1999, was released in August 2000, and became effective on 23 October 2000. Reg FD was designed to eliminate "selective disclosure" that operated between the company and its analysts or institutional investors. Selective disclosure occurs when a company releases material nonpublic information to specific groups at different times. The practitioner media have extensively discussed the effects of Reg FD on the behavior of corporate financial officers, interactions with stock analysts, and the effect on the analyses carried out by the analysts. In addition, a growing number of academic studies have focused on the effect of Reg FD on earnings announcements or analysts' earnings forecasts. A rich literature also examines the effects of analyst recommendations on stock prices.

This study contributes to the literature by examining the effect of Reg FD on the information content of analysts' changes in recommendations between a preregulation period (1 August 1999 and 31 July 2000) and a postregulation period (1 January 2001 to 31 December 2001). We used a large sample of upgrade and downgrade recommendations for a random sample of 167 S&P 500 Index stocks. We compared stock reactions (price and volume) to upgrades and downgrades in the preregulation period with reactions in the postregulation period.

The analyst recommendations fell into 14 action levels, which could be grouped into five categories: 1 = strong buy, 2 = buy, 3 = market outperformance, 4 = hold, and 5 = sell.

With respect to downgrades, the overall results in the form of price impact for the announcement day were negative and significant in the pre- and postregulation periods. The change in the effect of Reg FD in the postregulation period, however, varied by action level (but at the action level, samples were small). The net overall impact is that there has been no Reg FD impact on downgrades.

With respect to upgrades, the overall results in the form of price impact for the announcement day were significant in the pre- and postregulation periods, but we found no significant difference between the effect by period. Reg FD does not appear to have affected the impact of upgrades on stock prices.

The volume associated with a rating change, as measured by abnormal volume, declined after Reg FD was implemented.

The sample of 2,247 observations included 1,329 observations of single actions and 918 observations of multiple recommendations—that is, several actions recommended for the same stock simultaneously on Day 0 or a few days apart within the Day -4 to Day +4 announcement period. Moreover, the initial analyses did not con-

sider the effect of decimalization of the U.S. exchanges, which occurred in the period studied (for the NYSE and Amex, 19 January 2001; for NASDAQ, 9 April 2001). These factors were controlled for in further tests. We used regression analyses to examine the effects of the multiple same-day and overlapping recommendations and decimalization on stock prices in the pre- and postregulation periods. The multiple same-day recommendations were found to be statistically significant control variables and increased the magnitude of the average prediction errors on the announcement day. Downgrades had a much larger impact on abnormal returns than upgrades. The decimalization variables were not significant but did pose a problem in estimating the value of the variable to test for a change in the impact of Reg FD on the value of analysts' rating changes after the implementation of Reg FD on 23 October 2000. The coefficient for this variable was negative but insignificant.

The major finding of this study is that investors continue to respond to analysts' recommendations in the same way after the implementation of Reg FD as they did before its implementation. Given the lack of a significant change on the impact of recommendation changes to stock prices, the results do not require practitioners to change the way they view the analyst recommendation process.

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BANKRUPTCY AND FORECLOSURE RATES IN INDIANA

BY OZER ERDEM

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The National Association of Realtors conducted a study looking into the reasons behind high foreclosure rates in Indiana¹. Loss of payroll jobs was one of the reasons cited in the report. In the Spring 2006 issue of FDIC's Indiana state profile², a quarterly summary of state banking and economic conditions, it has been reported that state payroll employment growth declined to 1 percent in the fourth quarter of 2005. This represents a 1.3 percent decline from 2004. Moreover, most of the new job growth occurred in the areas with salaries below the state average. The unemployment rate in Indiana was 5.1 percent in Feb. 2006, which is 0.4 percent lower than the previous year.

Per capita personal bankruptcy filings in Indiana spiked to 12.47 for every 1000 people in 2005 from 8.7 in 2004. Indiana ranked highest in the nation for per capita personal bankruptcy filings. In 2005, there were 6.88 per capita personal bankruptcy filing for every 1000 people in the US. One reason behind this increase may be slower personal income growth rate in Indiana. Per capita personal income growth in Indiana was 3.12 percent at the fourth quarter of 2005, which is below the national average of 3.75 percent and down from 4 percent a year ago. Another contributing factor in the increase of per capita bankruptcy filings in Indiana could also be the higher number of bankruptcy filings Hoosiers filed to avoid the new bankruptcy law in 2005. Compared to surrounding states, Indiana had a higher per capita personal bankruptcy rate in the past decade. However, in the same period, Indiana's per capita business bankruptcy filings were lower than the US average.

In an *Indianapolis Star* article³, it has been reported that there were 7,575 foreclosures started during the last 3 months of 2005. 7,575 foreclosures started equate to 0.98 percent of all mortgage loans in Indiana. Indiana's rate is more than double the national average which was only 0.42 percent in the last quarter of 2005. Both "foreclosures started" and "in foreclosure rates" are the highest since 1979 for Indiana. During the last quarter of 2005, Indiana had the highest percentage of past due loans among all mortgage loans compared to surrounding states with 7.4 percent. When looking at the percentage of all mortgage loans in foreclosure at the end of last quarter of 2005, Indiana was ranked 2nd in the nation with 2.8, percent right after Ohio with 3.2 percent.

Higher rate of foreclosures could be one of the reasons behind the relatively slow growth rate of home prices in Indiana. In 2005, Indiana was ranked 48th, right before Ohio (50) and Michigan (51) by house price appreciation rate in the state. Although home prices increased 12.95 percent in the nation in 2005, house prices in Indiana increased only 4.69 percent.

■ Erdem is a research associate at Networks Financial Institute.

(1) Research Division. "Rising Foreclosure Rates in Indiana: An Explanatory Analysis of Contributing Factors", *National Association of Realtors*, March 2004. 11 April 2006 <<http://www.mibor.com/pdfs/ForeclosureStudy2004.pdf>>

(2) FDIC State Profiles: Spring 2006 Indiana Profile. *Federal Deposit Insurance Corporation*. 10 April 2006 <<http://www.fdic.gov/bank/analytical/stateprofile/>>

■ Leading the pack

Per capita personal bankruptcy filings in Indiana are the highest al all states in the nation

Year	Indiana	Illinois	Kentucky	Michigan	Ohio	US
2005	12.8	8.3	9.6	8.7	11.7	6.9
2004	8.7	6.2	6.7	6.3	7.7	5.3
2003	8.9	6.7	7.2	6.2	7.7	5.6
2002	8.6	6.4	6.6	5.5	6.8	5.3
2001	7.8	5.8	6.3	4.6	6.1	5.1
2000	6.1	4.8	5.1	3.6	4.6	4.3
1999	6.2	5.1	5.1	3.7	4.6	4.6
1998	6.4	5.3	5.5	4.1	4.9	5.1
1997	6.1	5.1	5.4	3.9	4.7	4.9
1996	4.9	4.4	4.7	3.2	3.9	4.2
1995	3.9	3.4	3.6	2.4	3.0	3.3

Source: American Bankruptcy Institute, the Administrative Office of the U.S. Courts, Census Bureau

■ Higher rate of foreclosures

Foreclosures in Indiana are the highest they have been today.

	Past Due*	Rank	In foreclosure **	Rank	Fore-closure Started*	Rank
Indiana	7.4%	6	2.8%	2	1.0%	1
Illinois	4.8%	20	1.3%	11	0.5%	12
Kentucky	5.7%	16	1.8%	3	0.6%	6
Michigan	6.9%	8	1.8%	5	0.7%	3
Ohio	6.7%	11	3.2%	1	0.9%	2

Source: Mortgage Bankers Association,

*During fourth quarter 2005 **End of quarter 2005.

■ Indiana house prices show smaller increases

Percent change in house prices through 4th quarter 2005

State	Rank*	1-Yr.	5-Yr.	Since 1980
United States**		12.9	57.7	284.8
Illinois	27	9.4	42.8	257.7
Kentucky	46	5.3	25.9	183.9
Indiana	48	4.7	20.6	155.6
Ohio	50	4.0	21.9	172.2
Michigan	51	3.8	23.5	226.6

* Rankings based on annual percentage change.

** United States figures based on weighted division avg.

Source: Office of Federal Housing Enterprise Oversight

(3) Evanoff, Ted. "Foreclosures in Indiana hit new high." *Indianapolis Star* 18 March 2006. 11 April 2006 <<http://www.indystar.com/apps/pbcs.dll/article?AID=/20060318/BUSINESS/603180487>>.

CREDIT UNIONS IN INDIANA

BY OZER ERDEM

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Number of credit unions in Indiana

A look at federally and state chartered credit unions in Indiana

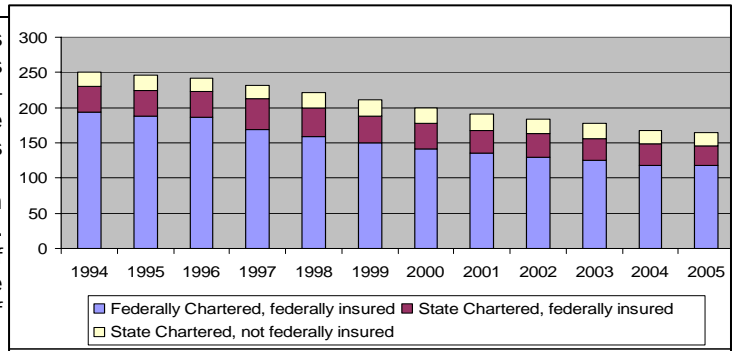
Credit Unions are not-for-profit organizations which serve groups with common traits such as occupation, residence etc. Credit unions are owned by their members. The National Credit Union Administration charters and supervises federal credit unions and through the National Credit Union Share Insurance Fund (NCUSIF), which insures federal credit unions and most state chartered credit unions.

At the end of 2005, there were a total of 221 credit unions in Indiana. 174 of them were federally chartered and federally insured. There were 47 state chartered credit unions in the state and 19 of those were not federally insured. The number of credit unions in the state has declined every year since 1994. Since 2000, the number of credit unions has declined 14.6 percent.

Although the number of credit unions in the state has declined, both total number of members and total number of full-time employees has increased. Between 2000 and 2005, credit unions created 737 full time positions and increased their number of members by 89,557. At the end of 2005, there were 5,427 full time and 975 part time employees working in Indiana credit unions.

Both in terms of return on equity and return on assets, Indiana credit unions perform poorly compared to credit unions nationwide. Especially during the last 3 years, the discrepancy between state and national credit union performance has worsened. At the end of 2005, return on equity for credit unions in Indiana was 5.12 percent compared to 6.91 percent for the nation. Compared to return on equity values in 2004, this represents a 0.9 percent decline for Indiana and 0.63 percent for the nation.

Net worth to total assets ratio is one of the indicators of capital adequacy in credit unions. For credit unions in Indiana, this indicator has improved over the years. The net worth to total assets ratio was 1.33 percent higher at the end of 2005 when compared to the previous year. However, compared to the nation's 12.07 percent at the end of 2005, Indiana's net worth to total assets ratio was lower with 11.69 percent. One reason behind this may be that credit union membership in Indiana was growing as fast as the nation's. Membership growth in Indiana was lower compared to the nation throughout the past decade except in 1999. Another reason may be lower rate of



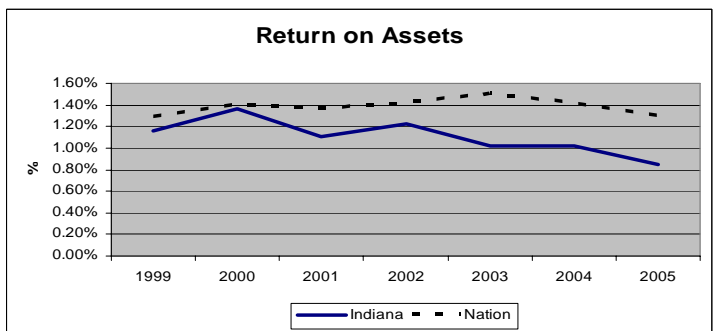
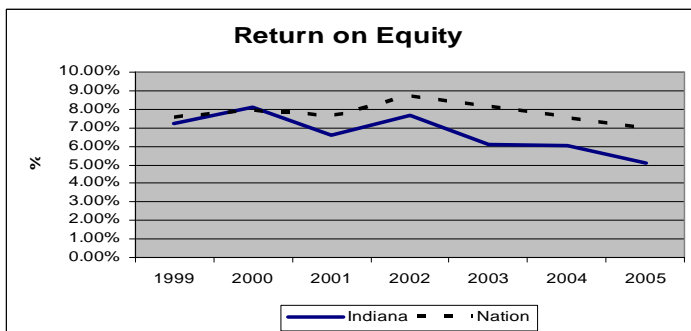
Source: National Credit Union Administration

A glance at members, employees

A look at credit union membership in Indiana since 1994 and the number of full- and part-time employees at credit unions in the state:

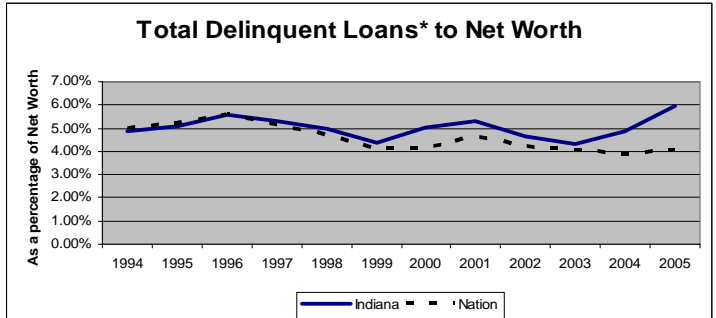
Year	Total number of members	Number of Full-Time Employees	Number of Part-Time Employees
1994	1,865,800	3,765	932
1995	1,905,037	3,916	985
1996	1,929,111	4,144	890
1997	1,967,419	4,363	939
1998	2,000,711	4,413	886
1999	2,063,131	4,532	933
2000	2,117,985	4,690	948
2001	2,136,604	4,896	929
2002	2,146,776	5,062	1,002
2003	2,182,981	5,238	988
2004	2,185,508	5,260	938
2005	2,207,542	5,427	975

Source: National Credit Union Administration



loans and leases growth. Between 1994 and 2005, average growth rate of total amount of loans and leases for Indiana credit unions was 7.72 percent compared to the nation's 9.13 percent.

Total delinquent loans to net worth ratio is another indicator of capital adequacy. It indicates the percentage coverage of total delinquent loans by the equity of credit unions. Indiana credit unions had 1.87 percent higher total delinquent loans to net worth ratio compared to the nation at the end of 2005. Although until 1999 it was very close the nation's average, the difference between the state and the nation's total delinquent loans to net worth ratio has increased since then.



Source: National Credit Union Administration

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(Continued from page 1)

ence. As shown in the *ResearchBuzz* for January 2006, real private fixed investment has remained unusually high in this decade. Even at its lowest level in 2003, it was higher than in any year from 1947-96 as a percent of real GDP, and in late 2005 it was more than 50 percent larger than the 1947-96 average.

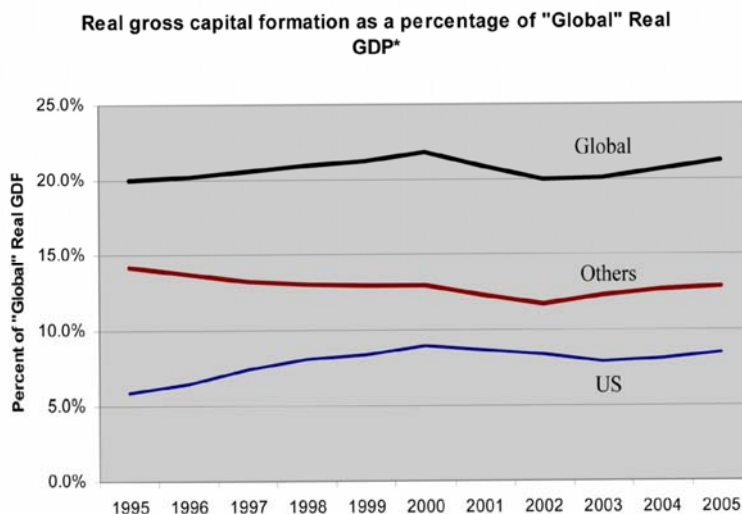
An indication of the quantity of capital formation relative to real GDP can be found by adjusting the nominal shares in Chart 1 by the relative price of capital goods. Unfortunately these prices are not available for the data used here, so the relative implicit price deflator for gross capital goods in the US is used for all three groups. When this is done, none of the key conclusions above are altered, although the magnitude of the weakness abroad and globally is reduced. This is shown in Chart 2. Nonetheless, at least part of weakness in global investment spending has apparently been due to the decline in the relative price of capital goods, at least to the extent that those prices elsewhere mirror the declines experienced in the US. In effect, part of the decline in capital pending is likely due to the fact that capital goods have become cheaper, so more real investment can be financed at a lower price.

Another factor that could be important is that the gross capital spending measures used in the chart are for both private and government capital spending. The latter is relatively larger in the rest of the world than in the US as a share of GDP. More important, government capital formation does not directly affect capital productivity and real interest rates, nor does it directly affect changes in productivity or the standard of living. It would be desirable to take public spending out of the ratios shown in the charts.

Interest rates have been relatively low over the past few years because the financing demands for new capital goods have declined relative to GDP. In past, this may reflect new technologies that have lowered the relative price of capital goods so that the same capital goods require less expenditure and financing relative to GDP. Unfortunately, it also appears that a real decline in investment relative to GDP accounts for low real interest rates. Such low rates of return and low investment, if they persist, will slow productivity growth and economic development.

■ Tatom is director of research at Networks Financial Institute.

Real capital formation has also declined globally since 2000.



Source: Eurostat, Bureau of Economic Analysis

"Global" includes the 25 members of the European Union, the United States and Japan.

* Based on the U.S. relative price of capital goods (year 2000 equals 100)

(1) See Alan Greenspan, "Testimony," *Monetary Policy Report to Congress*, Board of Governors of the Federal Reserve System, Feb.16, 2005.

(2) See Ben Bernanke, "The Global Saving Glut and the US Current Account Deficit," Sandridge Lecture, Virginia Association of Economists, Richmond, Va., March 10, 2005, and Homer Jones Lecture, St. Louis, April 14, 2005. Lawrence H. Summers points to an excess of saving outside the US for the decline in world interest rates. See his "Reflections on Global Account Imbalances and Emerging Markets Reserve Accumulation," L.K. Jha Memorial Lecture, Reserve Bank of India, March 24, 2006. www.president.harvard.edu/speeches

(3) See John A. Tatom, "Are We Saving?" *Financial Focus*, Spring 2006, pp. 35-37.

(4) The adjustment involves subtracting government purchases of capital goods from the official measure of gross saving because the funds to make these acquisitions are included in government saving.. The resulting figure is gross saving available to finance private sector investment in the US or abroad.