

RESEARCHBUZZ

Inflation Targeting is Neither Necessary Nor Sufficient

BY DR. JOHN A. TATOM

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Fed Chair Ben Bernanke is a strong proponent of inflation targeting, conducting monetary policy to achieve an announced target. He and others argue that this would increase the transparency of the Fed and make it more accountable by providing a specific numerical objective on which performance can be judged. It is widely believed that such transparency would improve the inflation performance and the predictability of the future course of inflation and of monetary policy actions.

Japanese policy critics also call for the adoption of inflation targeting to enhance transparency. In Japan deflation is perceived to have been ended, so “zero interest rate” and “quantitative easing” policies are expected to change to allow a tighter policy to constrain inflation. Since policy must change anyway, critics argue, there is an easy opening to adopt a new policy regime. Clarity of communication is no substitute for performance, however. Unless a central bank that targets inflation and communicates its objectives well can also deliver on low and predictable inflation, transparency is worthless. Words are not substitutes for actions.

Transparency is supposed to be valuable because it allows markets to anticipate future policy and so reduces surprises that disturb resource allocation, employment, output and prices. Any policy risk premium in real and nominal interest rates should be lower in countries with higher degrees of transparency. Proponents of inflation targeting suggest that such central banks better understand their responsibility for price stability and better communicate their superior policy target. Thus, they also should achieve lower inflation. Studies have failed to find evidence that inflation-targeting countries achieve lower or more stable inflation, however.

A new study by economists Sylvester Eijffinger and Petra Geraats (*European Journal of Political Economy*, March 2006) ranks central bank transparency for nine countries. The US is sixth, behind, in decreasing order, New Zealand, Sweden, the UK, Canada, and the Eurozone. Japan ranks even lower at eighth, behind Australia and ahead of last-place Switzerland. And that should raise red flags. Transparency must not be very important if the Swiss score so low.

Switzerland has a long history as a successful inflation fighter. Switzerland had the third lowest inflation in the group in 2005, only 1.0 percent. They also have the lowest excess of the 10-year government bond yield over recent inflation at 0.95 percent. If monetary policy can achieve low inflation and the lowest long-term interest rates relative to inflation despite the lowest level of transparency, then the latter cannot be worth much. The Swiss National Bank delivers, and they do so consistently, contributing to the lowest real cost of capital in the world.

Japan, often reviled as a failed central bank because of its 1990-2004 stagnation, has the lowest inflation rate in the group (-0.3%). In other contexts and in economic theory, such a degree of price stability or steady and moderate deflation would be an optimal result, though analysts have questioned this in recent years. Japan also enjoys the third lowest real interest rate at about 1.77 percent, at least as measured by the excess of the 10-year government bond yield over the most recent year's inflation rate at the end of 2005. Whatever Japan is doing, it seems to enjoy the lowest inflation rate and one of the lowest real rates of interest of the nine countries, despite their low transparency. Apparently their pursuit of price stability is being communicated more credibly than in most countries.

At the other extreme, the country with the highest transparency, New Zealand, had near average inflation in 2005 (1.5%) and the highest real interest rate (4.3%). Having the highest transparency has not given the New Zealanders

(Continued on page 2)

a lower cost of capital. In fact, the four countries with most transparent central banking policies are among the five countries with the highest excess of the government bond yield over inflation. Sweden, the only other country with high transparency and low inflation (0.5%), had the second highest real interest rate at the end of 2005 (2.8 %).

While the US ranks sixth in transparency, it had the second lowest real interest rate (1.1%) in the group, just above the rate in Switzerland. Apparently the Federal Reserve has a very high degree of anti-inflation credibility with the global marketplace, despite the surge in inflation to 3.4 percent in 2005, the highest pace in the group for the year ending in December 2005. Apparently the marketplace believes that this surge is temporary, so that nominal interest rates remained among the lowest in the world adjusted for inflation. No doubt the US could benefit from an explicit Fed target that is able to be monitored, but just taking up inflation targeting is not likely to be beneficial.

Countries that do not target inflation and therefore have the lowest central bank transparency generally had lower inflation and lower real interest rates in 2005. The patterns for inflation and real rates are not peculiar to 2005. They have longer standing than inflation targeting or concern for transparency. The 2005 real interest rates of the nine countries are systematically and negatively related to their transparency scores, hardly a selling point for transparency or its principal determinant, monetary targeting. There are, no doubt, other reasons why real interest rates vary across these countries, but it is difficult to think of how such reasons could give rise to such a significant negative relationship between transparency and real interest rates. Japan, the Swiss and the US have little to learn from central banks that target inflation, at least if market outcomes are the indicator of success.

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Recommended Readings

Bernanke, Ben S. and Michael Woodford, editors, *The Inflation Targeting Debate*, National Bureau of Economic Research Studies in Business Cycles, University of Chicago Press, 2005.

Eijffinger, Sylvester C.W. and Petra M. Geraats. "How transparent are central banks?" *European Journal of Political Economy*, Vol-

ume 22, Issue 1, March 2006, Pages 1-21.

International Monetary Fund, "Does Inflation Targeting Work in Emerging Markets?" *World Economic Outlook*, Chapter IV, September 2005, pp. 161-86.

Poole, William, "Inflation Targeting", *Federal Reserve Bank of St. Louis Review*, 88(3), May/June 2006, pp. 155-64.

Schott, Francis, "Inflation Targeting," *Business Economics*, January 2005, pp. 46-9.

Table: Are there gains from transparency?

| Central Banks | Transparency score | 10-year bond yield | inflation rate | real interest rate |
|------------------------|--------------------|--------------------|----------------|--------------------|
| 1. New Zealand | 14.0 | 5.83% | 1.50% | 4.33% |
| 2. Sweden | 14.0 | 3.30 | 0.50 | 2.80 |
| 3. UK | 13.0 | 4.22 | 1.92 | 2.30 |
| 4. Canada | 10.5 | 3.93 | 2.15 | 1.78 |
| 5. Eurozone (*Germany) | 10.5 | 3.4* | 1.98* | 1.42* |
| 6. US | 10.0 | 4.47 | 3.38 | 1.09 |
| 7. Australia | 9.0 | 5.20 | 2.80 | 2.40 |
| 8. Japan | 8.0 | 1.47 | -0.30 | 1.77 |
| 9. Switzerland | 7.5 | 1.96 | 1.01 | 0.95 |

Financial Literacy Education: The Case for Early Intervention

BY MARTHA H. MCCORMICK

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The assertion that there is a moment in time when students are at the proper stage of development to receive financial literacy instruction is reminiscent of outdated notions of reading-readiness, which maintained that teachers could look for a series of characteristics evident in children, a critical mass of which would indicate that a child was primed to learn to read.[1] Educators now understand that "literacy development begins long before children start formal instruction" and that "children are doing cognitive work in literacy development from birth through 6 and that quality instruction makes a vital contribution in these years to children's success." [2] Application of these insights of emergent literacy to financial literacy indicates that earlier interventions create an important foundation for children's ongoing receptivity to learning personal financial skills and challenges the notion that there is a correct moment much later in the formal education

process when it is appropriate to finally introduce financial literacy concepts.

Addressing financial literacy in the classroom and as early as kindergarten (K) through second grade (2) lays the groundwork for more advanced studies of financial literacy that typically appear in the later years of K-12 education, through the subjects of economics, business education (generally offered in high school), family and consumer sciences (typically introduced in middle school), and mathematics, a discipline that provides an ideal opportunity for exploring financial concepts from the earliest grades. The National Council of Teachers of Mathematics (NCTM) standards document, *Principles and Standards for School Mathematics*, sets out five goals for mathematical early childhood education, and ties them to monetary concepts that can be used to teach all of these goals, including:

- “valuing mathematics – money is a real-world concept that matters to students’ families”;
- “developing mathematical confidence – when students learn about handling money or buying items, they become more self-assured”;
- “problem solving – learning about the value of money and counting skills helps to build problem-solving skills”;
- “communicating mathematically – children can learn about monetary signs and symbols”;
- “reasoning mathematically – children learn how to ‘buy’ items and discuss cost values.”[3]

Just as emergent literacy teachers begin with pre-literate skills such as sounding out phonemes or identifying individual letters, so teachers of early childhood financial literacy begin with baseline skills such as recognizing the physical properties of individual coins or sharing money-themed children’s books during story hours. Using money as a concept both for illustrating mathematical ideas and for thinking about mathematical ideas in multiple contexts is a practical way to help students build those connections.

“[T]eaching young children about money is a meaningful experience that relates to real life and can be integrated with many other constructivist learning activities. . . Children who learn about money develop the ability to investigate, predict, reason, and use a variety of methods to solve problems. Thus they begin to achieve mathematical power.” [4]

Just as there are core concepts behind literacy that must be taught at the earliest possible ages, children must also have a foundation of core financial literacy concepts built before they begin to tackle more sophisticated activities. Pre-K and kindergarteners “can be introduced to ideas about money such as purchasing potential, coin names and value, and early counting skills. Primary-age children are increasingly capable of computations and making [financial] comparisons.”[5] Storybooks can provide extensive information about money and consequently help to develop literacy and financial literacy simultaneously. Role-playing purchasing and earning, learning coins and playing counting games with them, learning monetary symbols and incorporating money symbols and coin images in art projects, and reading stories about money concepts[6] all contribute to addressing aspects of goal setting, intertemporal choice,[7] earning, saving, planning, and spending in a concrete fashion as soon as possible in a child’s development.

NFI’s research demonstrates that financial literacy is rarely being taught to K through 5 students in the Indiana schools and is infrequently taught to students in grades 6 through 12.[8] NFI’s survey of Indiana teachers reveals their discomfort with their own personal financial literacy knowledge, and nationally, among parents with children 5 years of age or older, only 26% feel well prepared to teach their children about basic personal finances.[9] These findings suggest that financial literacy education is generally not provided either in the home or in schools and, in the limited settings in which it is mandated by state academic standards, it is mandated only on the high school level. NFI views financial literacy as an important component of literacy itself and is soon to release a white paper advocating early financial literacy

education to address this unfortunate educational shortfall in Indiana and across the U.S.; watch the NFI website for further details.

References

[1] Neuman, Susan B. and David K. Dickinson, eds., "Introduction," *Handbook of Early Literacy Research* (NY: Guilford P, 2001): 3-10. 3.

[2] Neuman and Dickinson 3.

[3] Saul, Karen E., "Money Matters: Exploring Money Concepts with Young Children," *Dimensions of Early Childhood* 25 (1997): 17-21. 17.

[4] Saul 17.

[5] Saul 17.

[6] Saul 18-19. This article lists some appropriate storybook titles dealing with money concepts for young children. For "books that provide high support for early numeracy development" see also Dickinson, Pat, "Promoting Early Literacy and Numeracy Through Quality Children's Literature," *Canadian Children* 27 (2002): 26-33. 28.

[7] Intertemporal choice is the study of the relative value people assign to two or more payoffs at different points in time. The concept of intertemporal choice was introduced in the nineteenth century by John Rae (1796-1872) in 1834 in the "Sociological Theory of Capital" and Nassau William Senior (1790-1864) in his *Outline of the Science of Political Economy* (1836). Eugen von Böhm-Bawerk (1889) elaborated on the model. Irving Fisher (1930) provided the most complete and accepted elaboration of intertemporal choice and interest rates to date. http://en.wikipedia.org/wiki/Intertemporal_choice. Intertemporal choice is different from the concept of delayed gratification. Deferred or delayed gratification is the ability of people to wait for things they want but does not take into consideration comparative value of now vs. later, or the notion of payoff as a benefit of waiting. http://en.wikipedia.org/wiki/Delayed_gratification.

[8] NFI's survey results document, entitled "Financial Literacy Indiana Activities Inventory," is available on NFI's website at http://www.networksfinancialinstitute.org/pdfs/profiles/NFI-01_Inventory.pdf. K-5 teachers are the least likely across all grade levels, types of schools (public or private) and regions of Indiana to teach financial literacy. They are also the least likely to deem financial literacy education important.

[9] FleetBoston, Smarter Decisions with Fleet National Survey, September 2003, <http://www.cbanet.org/SURVEYS/literacy/WEB%20FINAL%202004%20Financial%20Literacy%20Survey%20Report.pdf>.

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Indiana Insurance Industry

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Growth of the insurance industry is one of the priorities set by the Indiana Economic Development Corporation. There are a number of very well-known insurance companies located in Indiana, including WellPoint. Indiana has one of the lowest premium tax rates in the nation at 1.3 percent. Moreover, insurance companies in Indiana do not pay any miscellaneous income tax, fire marshal's tax and financial regulation fee. In addition, Indiana is home to nationally known business schools with strong insurance programs including Indiana State University and Ball State University.

There were 175 local and 1,640 out-of-state licensed insurance companies in Indiana in 2004, the latest year available. Life/Health and Property/Casualty insurance companies constituted about 60 percent of the local and 87.7 percent of the out-of-state licensed insurance companies. Tax revenues amounted to \$178.3 million in 2004. The national average was \$259.4 million. In terms of total tax revenue, Indiana came 23rd in the nation. Indiana was among the lowest when ranks by the amount of fees and assessments revenues collected. In 2004, revenues from fees and assessments amounted to only \$3.7 million compared to the national average of \$34.8 million.

Table 1: Per capita premium volume by type of insurer in 2004 (\$).

| | Total | Life-Health | Property-Casualty | Health |
|----------|-------|-------------|-------------------|--------|
| Indiana | 3,802 | 1,826 | 1,626 | 298 |
| Illinois | 4,199 | 2,194 | 1,581 | 373 |
| Kentucky | 3,424 | 1,157 | 1,332 | 877 |
| Michigan | 4,470 | 1,563 | 1,553 | 1,265 |
| Ohio | 4,046 | 1,932 | 1,495 | 517 |
| US | 4,323 | 1,854 | 1,545 | 808 |

Source: National Association of Insurance Commissioners, Bureau of Economic Analysis

(Continued on page 5)

In 2004, per capita premium volume in Indiana was \$3,802, which is lower than the national average of \$4,323. Indiana only fared better compared with Kentucky in terms of total per capita premium value. This performance was held back by low health care premiums with only \$298 per capita premium volume for Health insurance products, Indiana was well below the national average of \$808. Per capita premium volume of Life/Health and Property/Casualty insurance lines was higher than the nation's average. Indiana ranked 20th and 16th respectively for Life/Health and Property/Casualty insurance lines when ranked by their per capita premium volume in 2004.

Insurance is not a growth sector for employment, presumably because of productivity gains, and this is especially true for Indiana. In Indiana, there were 43,000 Hoosiers working in the insurance industry in 2004. Employment in the insurance industry has been declining since it peaked at 49,000 at the end of 1998. A total of 112,531 licenses were issued to individuals allowing them to provide insurance services in Indiana (55,393 resident and 57,138 non-resident). According to Bureau of Labor Studies, in 2004, the average annual pay in Indiana was \$52,665 in privately-owned insurance companies and \$77,264 in government-owned insurance establishments.

WellPoint is by far the largest insurance company in the state. They are also among the 10 largest insurance companies in the nation. With the completion of merger between Anthem and WellPoint Health Networks at the end of 2004, a new company called WellPoint Inc. was created which is of the biggest health insurance companies in the US, with more than 28 million members and with \$51.4 billion in assets.

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Table 2: Percentage change in insurance industry employment

| | Indiana | Illinois | Michigan | Ohio | US |
|------|---------|----------|----------|-------|-------|
| 1991 | 1.3% | 1.8% | -6.0% | 0.1% | 1.6% |
| 1992 | -0.9% | 0.5% | -0.8% | -0.3% | -0.4% |
| 1993 | -0.8% | 1.1% | -0.1% | 0.7% | 2.1% |
| 1994 | 0.6% | 1.2% | 1.0% | 2.7% | 1.7% |
| 1995 | 2.3% | 0.1% | 1.0% | 1.1% | -0.5% |
| 1996 | 2.8% | -2.3% | 1.1% | 3.4% | 0.0% |
| 1997 | 4.8% | 1.0% | 2.1% | 4.5% | 1.7% |
| 1998 | 1.2% | 0.2% | 3.2% | 3.9% | 3.1% |
| 1999 | -0.2% | -2.4% | -0.5% | 3.7% | 1.2% |
| 2000 | -2.2% | -3.4% | -1.3% | 0.8% | -0.7% |
| 2001 | -0.7% | -0.6% | 3.2% | 0.3% | 0.6% |
| 2002 | -1.7% | -1.6% | 3.5% | -0.2% | 0.0% |
| 2003 | -1.3% | -1.2% | -0.5% | 2.8% | 1.5% |
| 2004 | -3.1% | -2.9% | -2.0% | 0.4% | -0.3% |
| 2005 | -1.7% | -0.8% | -0.7% | 0.3% | -0.1% |

Source: Bureau of Labor Studies

Table 3: Indiana's largest insurance companies by sales in 2005.

| | Company Name | Sales (millions \$) |
|-----|--------------------------------|------------------------|
| 1. | WellPoint Inc | \$45,136 |
| 2. | Lincoln National Life Insur Co | \$11,701 |
| 3. | Conseco Inc | \$4,418 |
| 4. | American General Finance Inc | \$2,459 |
| 5. | American United Life Insur Co | \$2,313 |
| 6. | Clarian Health Partners Inc | \$2,011 |
| 7. | Medical Protective Co Inc | \$701 |
| 8. | Waterfield Mortgage Co Inc | \$414 |
| 9. | United Farm Fmly Mutl Insur Co | \$397 |
| 10. | Lafayette Life Insurance Co | \$393 |

Source: D&B's Million Dollar Databases

Figure 1: Insurance business costs in Indiana

| INSURANCE BUSINESS COSTS | INDIANA | Illinois | Michigan | Ohio | Kentucky |
|---------------------------------------|---------|---|---|---------|---------------------------|
| Premium Tax Rate Accident & Health | 1.30% | 0.40% | 1.30% | 1.0% | 2.00% |
| Premium Tax Rate Other Lines | 1.30% | 0.50% | 1.30% | 1.40% | 1.70% (Life) |
| Misc. Income Tax | NO | YES up to 1.5% of premiums | YES Single Business Tax 0.25% of adj receipts | NO | Local Premium Taxes |
| Fire Marshall's Tax | NO | YES 1% | NO | NO | Fees Per Run |
| Financial Regulation Fee | NO | YES - up to \$250,000 per company | \$250 min. | NO | NO |
| Admission Fees Domestics | \$350 | \$5,000 | \$500 | \$2,500 | \$600 |

Source: Indiana Economic Development Corporation