FRBSF Weekly Letter

Number 91-29, August 30, 1991

Notice to our readers: The *Weekly Letter* will appear on an abbreviated schedule during June, July, August, and December. To help you keep track of your subscription: • issues now contain a running index of the most current articles • issues are now both dated and numbered.

Public Preferences and Inflation

Inflation rates vary enormously from country to country. Between 1977 and 1989, for instance, inflation averaged 6.2 percent in the U.S., 2.8 percent in Japan, and 40 percent in Iceland. Even within the European Common Market inflation rates in this period ranged from 3.0 percent in Germany to 19.1 percent in Greece.

What accounts for these differences? Is it because countries with high inflation experienced stronger inflationary shocks, from either external or internal sources, than low inflation countries? Is it because differing institutional structures in each country lead nations to respond differently to common worldwide economic events?

Recent theories imply that differences in inflation may simply reflect public attitudes in a country, in particular, a willingness to tolerate inflation in return for short-run economic expansion and reduced unemployment. According to these theories, an economy's average rate of inflation reflects the weight society places on inflation relative to unemployment. Countries that weigh the costs of inflation heavily should have lower average rates of inflation. Conversely, countries that place low weight on maintaining low inflation should have higher average inflation. These theories are based on the notion that central banks have an incentive to engage in expansionary policies in order to achieve a temporary reduction in unemployment at the cost of higher inflation. If society places little weight on the costs of the higher inflation, the incentive will be great to attempt to reduce unemployment. As a result, inflation will tend to be higher.

Recent work comparing household surveys of attitudes in the U.S. and New Zealand provides some interesting evidence on the role of social attitudes in affecting a nation's inflation experience. Since 1977, inflation has averaged 6.2 percent in the U.S. and 12.1 percent in New Zealand. The surveys are consistent with the hypothesis that New Zealanders are less averse to inflation than Americans; New Zealand's higher rate of inflation may reflect the political process which supplies the rate of inflation the public demands.

Measuring attitudes towards inflation

Survey data allow the construction of a measure of average attitudes towards inflation. However, it is important to keep in mind that attitudes towards inflation are usually complex and vary with each individual's own personal economic situation. One of the major real costs of inflation, particularly when the inflation was not fully anticipated or indexation is incomplete, is an arbitrary redistribution of wealth. An unexpected rise in the rate of inflation tends to distribute wealth away from creditors and towards debtors; an unexpected decline in inflation has the opposite effect. It should not be surprising, therefore, that attitudes towards inflation vary widely across the population. Broad measures of average views on inflation can hide this diversity of opinion but may still be useful in assessing the general attitude of the population.

In order to construct a measure of society's preference for inflation, it is necessary to focus explicitly on the costs and benefits of inflation. In the abstract, most people would probably prefer zero inflation. Such an observation is relatively unhelpful though, since it fails to provide any information on the price society would be willing to pay to achieve zero inflation. Since the major cost of reducing inflation is usually considered to be the resulting temporary rise in unemployment, the appropriate way to measure society's preference for inflation is to focus on the trade-off the public is willing to make between inflation and unemployment.

Smyth and Woodfield (1991) examine this trade-off by constructing an index based on the survey responses to the question: "What is the single most important problem facing New Zealand now?" The index is equal to the number citing inflation expressed as a fraction of the number citing either inflation or unemployment as the most important problem. By relating this index to actual inflation and unemployment, Smyth and Woodfield can calculate the preferences of a hypothetical "median voter," represented by the point where the number of people who would cite inflation as the most important problem is the same as the number who would cite unemployment. They then compare the results with similar evidence from U.S. surveys.

The results of the comparison are quite interesting and consistently reveal that New Zealanders have a greater tolerance for inflation. The contrast in attitudes with Americans can be illustrated by considering the following question: How much inflation will the median voter accept? The answer will depend on the level of unemployment, but at an unemployment rate of 6 percent, often taken as a rough estimate of the sustainable average rate of unemployment in the U.S., the critical rate of inflation is 4.2 percent. As inflation rates rise above this figure, more survey respondents cite inflation than unemployment as the most serious problem. The corresponding critical inflation rate at 6 percent unemployment for New Zealand is estimated by Smyth and Woodfield to be in the range of 30-34 percent, eight times the value for the U.S.

This comparison may be misleading since New Zealand has traditionally had much lower rates of unemployment than the U.S. Thus, 6 percent unemployment may be "normal" in the U.S., but it represents unprecedented unemployment relative to New Zealand's historical experience. Perhaps it is not surprising then that inflation would need to be at very high levels indeed to be considered as serious as 6 percent unemployment in New Zealand.

Currently, New Zealand is suffering from high rates of unemployment, and recent major structural changes in its economy make it difficult to estimate what might be the normal rate of unemployment. If, however, one assumes a normal unemployment rate of 3 percent, the contrast in attitudes towards inflation is still quite remarkable. At an unemployment rate of 3 percent, the critical rate of inflation exceeds 13 percent. According to this study, New Zealanders are clearly more tolerant of inflation than Americans are.

Political popularity
A second way to measure the public's preferences towards inflation is to examine how inflation and unemployment affect the popularity of elected politicians. In the U.S., the proposition that Presidential popularity depends on the state of the economy is well established and forms the basis of political models of the business cycle. These models attribute business cycles to the manipulation of the economy by administrations striving to be reelected. Political business cycle models, and the evidence that they can explain economic fluctuations, are critically reviewed in Huh (1990).

Smyth and Woodfield (1991b) examine results from a New Zealand survey in which respondents were asked whether they approved or disapproved of the overall performance of the government. They then estimate the impact of inflation and unemployment on the government's approval rating using data from the end of 1985 to the beginning of 1990, a period characterized by government attempts to reduce inflation. The results indicate that increases in either inflation or unemployment significantly reduce the approval rating the public gives the government.

Smyth and Woodfield estimate that at an initial unemployment rate of 3 percent and an inflation rate of 12 percent, a rise in unemployment to 4 percent would require a drop in inflation to less than 7 percent to prevent the New Zealand government's approval rating from falling. The implicit trade-off between inflation and unemployment rates that would hold government approval constant places much more weight on unemployment than appears to be the case in the U.S. This is consistent with the survey evidence on public identification of the most serious economic problem.

Do other countries follow the same pattern?
According to the Smyth and Woodfield studies, New Zealanders seem more willing to trade off inflation for unemployment reductions than Americans, and New Zealand has generally experienced much higher inflation than has the U.S. Is the experience of other countries also consistent with this pattern?

Nordhaus (1989) reports estimates of the impact of unemployment and inflation on governmental popularity as measured by opinion polls from the mid-1950s to the 1970s for the U.S., Germany, and the U.K. His estimates suggest that a 1 percentage point rise in the unemployment rate together with a 4 percentage point fall in inflation would leave the government's popularity unchanged in the U.S. In Germany, in contrast, the negative impact of such a rise in unemployment would be offset by a drop in inflation of just 1.3 percent. The U.K. falls at the opposite extreme—inflation would need to decline by 8.6 percent to offset a rise in the unemployment rate of 1 percent if the government's popularity were to remain unchanged. Thus, one can interpret this as evidence to rank the three countries according to their preferences for inflation relative to unemployment: Germany gives greatest importance to low inflation, then the U.S., then the U.K. Countries that weigh inflation heavily, like Germany, should have low average rates of inflation. This is, in fact, exactly what the data reveal. From 1960 to 1979, the average rates of inflation in Germany, the U.S., and the U.K. were, respectively, 3.7 percent, 4.7 percent, and 8.0 percent.

An alternative interpretation

So far, the discussion has suggested that some countries, like New Zealand, have had more inflation than the U.S. because their citizens have been willing to tolerate higher rates of inflation. But there is an alternative interpretation. Perhaps countries that have high inflation simply learn to live with it. Social institutions and economic arrangements may adjust so as to reduce the costs of inflation. Indexation of wages, financial contracts, and taxes, for example, can reduce the distortionary income and wealth redistribution that inflation can cause. Inflation may be viewed as a less serious problem in high inflation countries simply because those countries have adjusted in ways that help ameliorate the consequences of inflation.

This interpretation, however, is consistent with the general view that a country's inflation rate settles at a level that balances the perceived costs of inflation with the perceived short-run gains. Adjustments that help to eliminate or reduce the perceived costs—such as indexation of wages, social security payments, financial instruments, and so forth—will result in a rise in inflation until costs again balance the perceived gains.

Carl E. Walsh
Associate Professor
University of California
at Santa Cruz
Visiting Scholar
Federal Reserve Bank
of San Francisco

References

Huh, Chan Guk. 1990. "Political Business Cycles." Federal Reserve Bank of San Francisco *Weekly Letter* (December 14).

Nordhaus, William D. 1989. "Alternative Approaches to the Political Business Cycle." *Brookings Papers on Economic Activity 2*, pp. 1-49.

Smyth, David J., and Alan E. Woodfield. 1991a. "Inflation-Unemployment Choices in New Zealand and the Median Voter Theorem." *Economics Letters* 35 (April) pp. 397-400.

Smyth, David J., and Alan E. Woodfield. 1991b. "Inflation, Unemployment and Macroeconomic Policy in New Zealand: A Public Choice Analysis." *Public Choice*. Forthcoming.

Research Department
Federal Reserve
Bank of
San Francisco
P.O. Box 7702
San Francisco, CA 94120

Index to Recent Issues of *FRBSF Weekly Letter*

DATE	NUMBER	TITLE	AUTHOR
2/22	(91-8)	Economic Reform in China	Cheng
3/1	(91-9)	Consumer Sentiment and the Economic Downturn	Throop
3/8	(91-10)	Recapitalizing the Banking System	Pozdena
3/15	(91-11)	Droughts and Water Markets	Schmidt
3/22	(91-12)	Inflation and Economic Instability in China	Cheng
3/29	(91-13)	Banking and Commerce: The Japanese Case	Kim
4/5	(91-14)	Probability of Recession	Huh
4/12	(91-15)	Depositor Discipline and Bank Runs	Neuberger
4/19	(91-16)	European Monetary Union: Costs and Benefits	Glick
4/26	(91-17)	Record Earnings, But...	Zimmerman
5/3	(91-18)	The Credit Crunch and The Real Bills Doctrine	Walsh
5/10	(91-19)	Changing the $100,000 Deposit Insurance Limit	Levonian/Cheng
5/17	(91-20)	Recession and the West	Cromwell
5/24	(91-21)	Financial Constraints and Bank Credit	Furlong
5/31	(91-22)	Ending Inflation	Judd/Motley
6/7	(91-23)	Using Consumption to Forecast Income	Trehan
6/14	91-24	Free Trade with Mexico?	Moreno
7/5	91-25	Is the Prime Rate Too High?	Furlong
7/19	91-26	Consumer Confidence and the Outlook for Consumer Spending	Throop
7/26	91-27	Real Estate Loan Problems in the West	Zimmerman
8/16	91-28	Aerospace Downturn	Sherwood-Call

The *FRBSF Weekly Letter* appears on an abbreviated schedule in June, July, August, and December.