Interwar Price Level Targeting

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General Objective: Contribute to a long-running debate on whether policy is better conducted according to

- (i) a "policy rule," where the policy maker follows some type of formula in setting policy instruments or;

- (ii) discretion, where the policy maker may set the policy instruments according to circumstances and often the policy maker's intuition and reading of the evidence compared with past economic history.

Specific Objective: Given the historical record on the Great Depression, where monetary policy was apparently discretionary (and described as "inept" by Milton Friedman and Anna Schwartz in their definitive book on *A Monetary History of the United States, 1867–1960*), we examine how the economy might have behaved had policy followed a specific policy rule that was well-known at the time. That is, we conduct a "counterfactual analysis."

Are Counterfactual Analyses Believable?

No, not if:

- the historical circumstances cannot be meaningfully replicated;
- the alternative policy proposed could never have been implemented.

Yes, if:

- the historical circumstances are employed as accurately as possible;
- the alternative policy was known at the time and could have been implemented given knowledge possessed by policy makers at the time.

What was known about price level targeting in the 1920s and 1930s?

- As early as the 1890s, Swedish economist Knut Wicksell proposed a price level target to guide monetary policy in Sweden.

- By 1931, the Swedish central bank, the Riksbank, implemented price level targets.

- In the U.S., beginning in 1922 and extending through the interwar period, 78 bills were introduced into Congress to charge the Federal Reserve with controlling the price level.

- Over the two-year period 1931–33, there were no fewer than 25 pieces of legislation that would have required policy makers to maintain the price level were introduced Into the House of Representatives.

What did we know about implementing price level targeting in the 1930s?

Yale economist Irving Fisher, in 1931 testimony, suggested implementation as follows:

- “Raise the present deflated level of prices as speedily as possible to a level not above that existing before the present deflation.”

- Maintained the price level “as nearly as this is possible through monetary and credit policy. . . . In maintaining said level so far as possible, the Federal reserve system is authorized to extend its open market operations by buying and selling commercial paper as well as all other types of drafts, bills of exchange, acceptances, municipal warrants, government bonds, and other securities.”

- Fisher’s proposal allows for both temporary and permanent adjustments to the gold standard. He emphatically noted that there would be no “need of America following the English example by abandoning the gold standard.”

The second point suggests that policy instruments were available and that price level targets could be implemented without causing “structural changes” (for example, abandonment of the gold standard) that might obviate our counterfactual analysis.

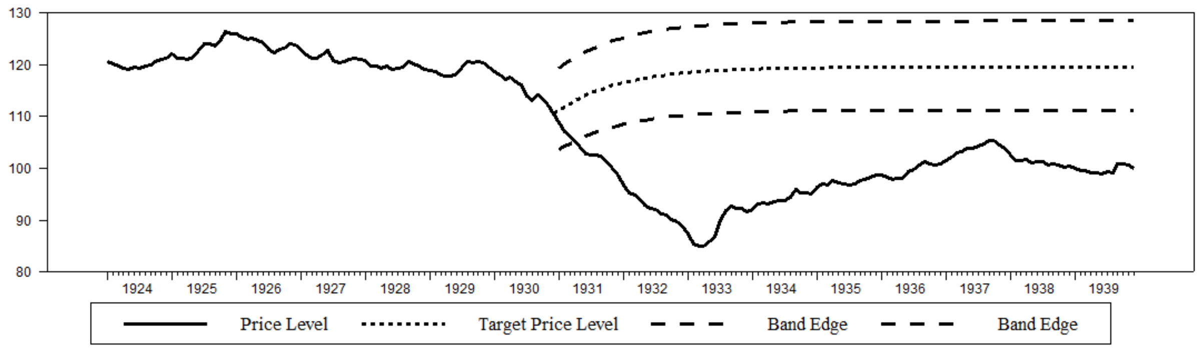
What we do in this paper:

Use data only available through 1930 in the statistical representation;

Mimic as closely as possible the Fisher outline for the policy procedure – namely conduct policy so as to attain the desired price level. We employ the M2 money supply as the policy instrument, consistent with Friedman and Schwartz.

The price level objective, compared with the actual evolution of the price level is:

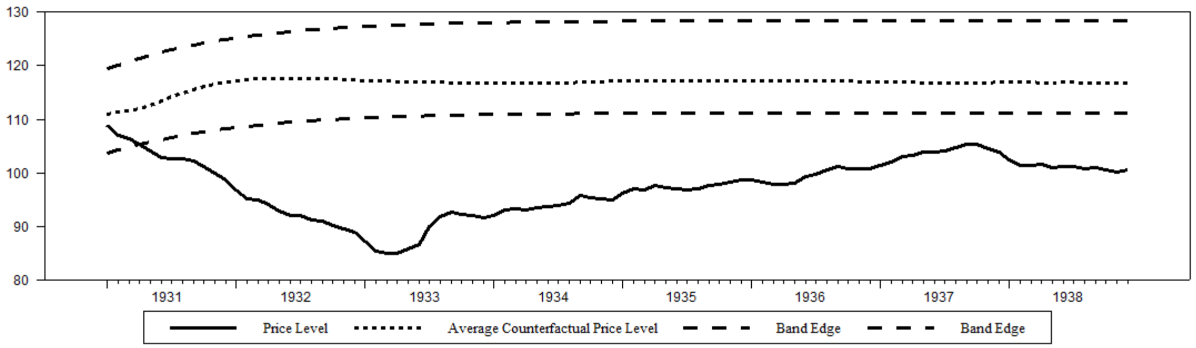
FIGURE 1: Price Level, Target Price Level, and Target Band



Consistent with Fisher's outline, we conduct policy to return the price level to its value in December, 1929.

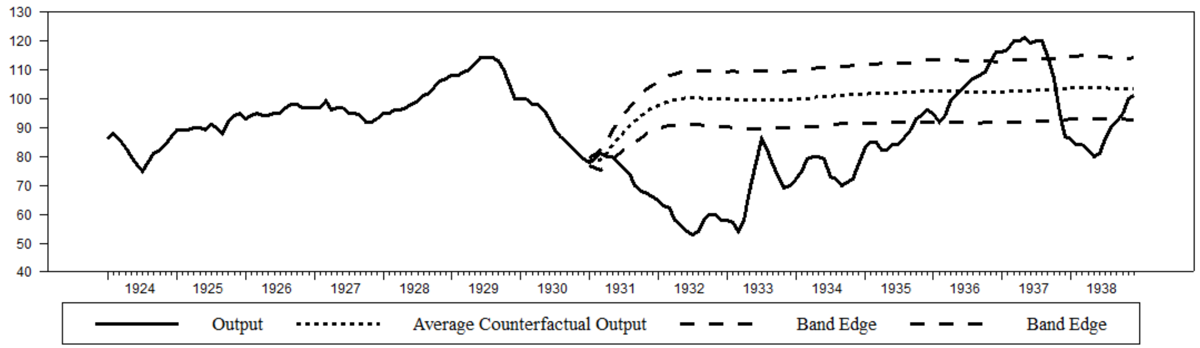
In our analysis, the average counterfactual path of the price level is given by the dotted line in the Figure below. In the individual trials, we never breach the dashed band.

FIGURE 3: Price Level, Counterfactual Price Level, and Target Band



What happens in the economy with this policy in place?

FIGURE 5: Actual Output, Average Counterfactual Output, and Confidence Bands



The dotted line gives the average result of our simulations and the dashed band gives the standard deviations of the outcomes. It appears that the economy would have avoided the worst of the Great Depression had the price level policy tool been implemented.

Are the results feasible? Are our results robust; that is, do they exhibit sensitivity to our choices?

Feasibility: Further analysis shows that:

- The gold standard “cover ratio” would not have been violated, so that Fisher was correct in his assertion, at least by our results;
- There were no significant shifts in the structure of the economy prior onset of deflation in 1929 and the beginning of our implementation of the policy experiments in January 1931.

Sensitivity: The results are essentially unchanged even if we:

- target the price level in 1926 rather than that in 1929;
- employ a different interest rate in the underlying statistical representation of the economy;
- employ a different measure of the price level in the underlying statistical representation of the economy;
- alter the way the M2 money supply interacts with the other variables in the statistical model;
- use the concept of the monetary base rather than M2 in the analysis.

Conclusion:

With some degree of confidence, we believe that the price level targeting rule would have allowed the economy to avoid the worst of the Great Depression.