FEDERAL RESERVE BANK
OF CHICAGO

CHARLES L. EVANS
President and Chief Executive Officer

Date: September 14, 2010

To: Board Members and Federal Reserve Bank Presidents

From: President Charlie Evans

Subject: A proposal for a State-Contingent Price-Level Objective

Following our August FOMC meeting, I worked with my staff in Chicago to develop an alternative policy proposal to address my concerns. The alternative proposal that is considered here is to adopt a state-contingent price-level objective with the express purpose of escaping from the current zero-lower-bound. The document that I have attached is a mock-up of a potential announcement from the Committee describing the economic situation, the rationale, the specific policy actions, additional commentary and some frequently-asked-questions posed in discussions with my staff. I recognize that this is a challenging policy to communicate. Still, I read this document as indicating that it is feasible to communicate such a policy to the public.

I offer this proposal in the hopes of fostering constructive discussion of alternative policies to better meet the dual mandate responsibilities of the Committee.

Proposed State-Contingent Price-Level Objective

(Federal Reserve Bank of Chicago)

Following their meeting on XXX, the Federal Open Market Committee released the following statement:

After reviewing the available data and economic projections produced by the staff, the Federal Open Market Committee has determined that the economic recovery is continuing, but that there are substantial risks that current monetary policies will be insufficiently accommodative to meet the dual mandate objectives specified by the Federal Reserve Act within a reasonable timeframe. Under current projections with monetary policy remaining accommodative for an extended period of time, the staff projects that the fourth-quarter of 2012 core PCE inflation will be about 1.0 percent (Q4/Q4) and the unemployment rate will be near 7.5 percent. If the federal funds rate were not already approximately zero, the normal policy response would call for a substantially lower nominal interest rate. Since that is not possible at the zero-lower-bound, the Committee has decided to take further aggressive actions in order to better meet both objectives specified by the Federal Reserve Act.

The Committee has elected to take aggressive action in response to the extraordinary conditions that the U.S. economy currently faces, and has only faced twice in the history of the Federal Reserve. Today's extraordinary conditions are well-known: current unemployment is 9.6 percent; trillions of dollars of accumulated savings and wealth has been destroyed; core inflation is around 1 percent; the federal funds rate is approximately zero; and the increase in the size of the Federal Reserve's balance sheet over the last two years is unprecedented. Economic research by Reinhart and Rogoff, among others, has clearly shown that severe financial crises are associated with severe headwinds for economic growth and lower inflation pressures. These rare economic and financial crises are distinct from typical economic recessions for which typical monetary policy responses are appropriate. Consequently, an extraordinary monetary policy response is necessary. Economists refer to distinct responses that depend on observable and unique events as state-contingent responses. Once economic conditions return to a condition (or state) closer to normalcy with short-term nominal interest rates well above the zero-lower-bound, the Committee will resume normal monetary policy responses to support maximum employment, maximum sustainable growth and price stability. As these events are rare, the Committee expects to never revisit these extraordinary policies within the tenure of current members nor our successors.

Evans Proposal for State-Contingent Price-Level Objectives September 14, 2010

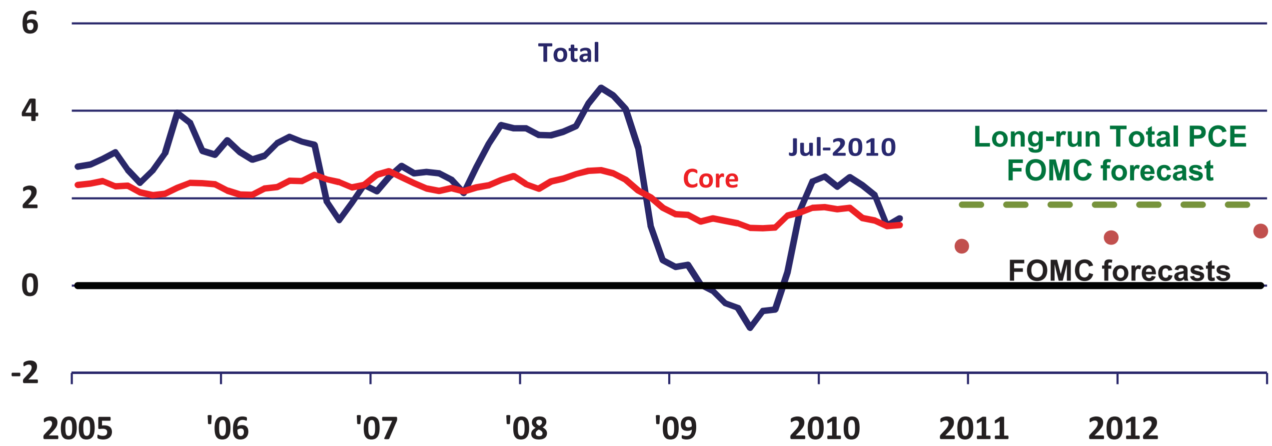
Today, the Federal Reserve announces four policy responses:

1. The Committee affirms that in normal times it interprets the Federal Reserve's price-stability objective to be associated with 2 percent PCE inflation over a medium-term horizon. Since some components of total PCE inflation can exhibit short-term volatility, intermediate measures of underlying inflation measures will remain critical for monitoring progress over shorter-term horizons. Core PCE inflation is one such measure.
2. However, under today's extraordinary conditions that include hitting the zero-lower-bound on short-term interest rates (also known as a liquidity trap), the Committee has decided to pursue further accommodative monetary policies consistent with raising for a time its objective for inflation. In particular, monetary policy will support the attainment of a level of the price level consistent with an average annual increase of 3 percent from the index value in December 2007, when the recession began. Monetary policy actions will be taken to achieve this path of prices. Specifically, this state-contingent policy objective will be pursued until actual core PCE prices attain the target-level path. Once this condition has been achieved with sufficient confidence, policy will return to its normal response patterns to achieve 2 percent PCE inflation over the medium-term.
3. In order to support further monetary accommodation, the Committee has decided to make a series of additional large-scale asset purchases over the next 6 months. During this period, the Committee authorizes the System Open Market Account Manager to purchase $100 billion of U.S. Treasury securities between each FOMC meeting. At each future meeting until further notice, the Committee will assess progress towards its target-price-level path and consider authorizing additional purchases.
4. In the event other supporting actions are deemed helpful or necessary to meet the target-price-level path within a reasonable timeframe, the Committee will take all necessary actions.

The Committee recognizes the extraordinary nature of this policy announcement and understands the paramount importance of communicating clearly the Federal Reserve's intentions, rationale, policy actions, and expectations. The Chairman will be conducting an initial press conference at 3pm to provide additional details.

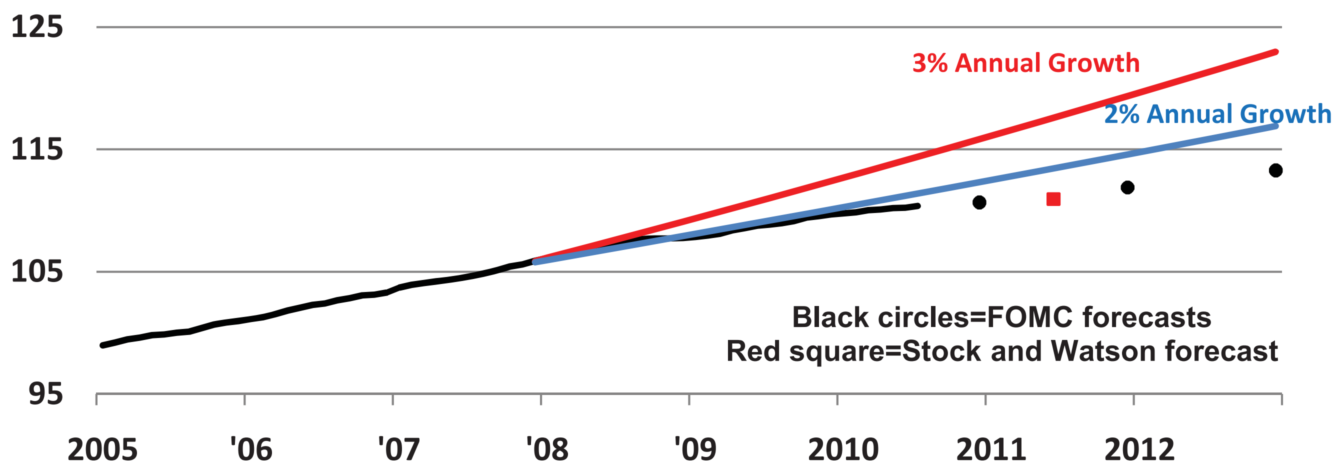
PCE Price Index

(12-month percent change)



Core PCE Price Index

(Index)



Additional Commentary

The Committee would like to make two additional comments that seemed beyond the scope of our initial announcement.

The Committee is persuaded by a body of economic research that highlights the risk of extended liquidity traps within today's mainstream framework of macroeconomic analysis. Standard theories analyzed by Krugman (Brookings 1998, Japan Journal 1999), Eggertsson and Woodford (Brookings 2003), and Auerbach and Obstfeld (AER 2005), among others, indicate that escaping the zero-lower-bound with monetary policy actions requires committing to a permanent increase in monetary liquidity that raises the price-level and prevents permanent under-runs of inflation objectives during such an extraordinary period. Indeed, Milton Friedman, the economics profession's most towering monetary economist, advocated accommodative policies that would expand the growth of money and credit aggregates when writing about the U.S. economy in the 1930s and Japan in the 1990s (WSJ and Hoover Institution, 1998). The Committee's announced state-contingent price-level objective and associated policy actions are aggressive attempts to accomplish these goals.

The Committee recognizes that the choice of 3 percent for the slope of the target-price path is a percentage point greater than our normal inflation objective of 2 percent. The Committee's choice was made for several technical reasons. First, selecting a slightly higher price-level path should convey to markets and participants the Committee's resolve to address the current zero-lower-bound problem. Second, the magnitude of the permanent increase in the price level will ultimately depend on how long the state-contingent price-level contingent policy is maintained. If the 3 percent path engenders a more rapid response in prices than a lower path, the policy may achieve its target-price-level objective sooner and potentially at a lower price-level. Third, with reference to a policy loss function that is symmetric around a long-term inflation goal of 2 percent, a 3 percent inflation outcome is judged to be equivalent to today's projection of 1 percent inflation in 2012. Specifically, everything else equal, an inflation outcome of 1 percent generates approximately the same policy loss as an inflation outcome of 3 percent. A slope larger than 3 percent would inflict a larger policy loss from today's projection of 1 percent in 2012, everything else equal.

Frequently Asked Questions: As we prepared this proposal in Chicago, these are some questions that came up during discussions with staff economists:

Question #1: With policy at the zero-lower-bound, shouldn't we be worried that this policy will be ineffective at producing higher inflationary expectations, now and in the future?

> Response: Clearly this is a risk. But there are many risk-mitigants: (1) the structure of the proposed price-level policy is designed to produce higher inflation for a time, (2) the confirming actions of additional asset purchases will clearly signal commitment to the policy, and (3) a broad communications strategy should discuss all aspects and channels through which this policy is expected to provide relief from the liquidity trap and zero-lower-bound. The Federal Reserve's commitment is to raise the level of prices to the target-price-level path in order to support the economy's exit from a liquidity trap. As progress is made towards this objective, inflation expectations will increase.

Questions #2: Additional monetary policy accommodation through purchases of Treasury securities may signal to markets that the Federal Reserve is willing to monetize the government's debt. Isn't there a risk that inflationary expectations can become unhinged and go too high?

> Response: Full commitment to the state-contingent price-level objective can provide a firm nominal anchor for the path of prices. Carefully and continuously explaining the execution and the threshold for exiting this extraordinary policy will build credibility. Indeed, in the absence of accompanying clarifications such as this state-contingent price-level objective policy, additional purchases of Treasury securities could wrongly be interpreted by the public as a policy of accommodating whatever level of borrowing the Treasury wishes to undertake, rather than as one of trying to achieve desirable goals for inflation and employment over a medium-term horizon. Thus, an announcement of a state-contingent price level target could serve to lessen the chances that further asset purchases would lead to unhinged inflation expectations.

Question #3: The literature on liquidity traps emphasizes that monetary policy actions to increase the money supply and price-level must be permanent in order to effect a change in current expectations. If economic agents and markets expect that these so-called permanent commitments will be unwound in the future, these promises will not be credible and current expectations will not adjust upwards? Is it feasible for the Committee to credibly pledge to NOT renege on this policy?

> Response: As stated above, full commitment to the state-contingent price-level objective can permanently increase the future path of prices. From a political economy standpoint of Committee voting, there is a clear risk that future Committee meetings could include voting members who have different viewpoints or whose perspectives have changed.

> This is a significant risk. Without presuming the ultimate merits of this policy proposal, the *inability* of a committee to commit to pursue a potentially appropriate policy highlights a potential failure of our institutional structure by limiting the full-scope of possibilities.

Question #4: As the actual path of prices rises to close the gap to the target-price-level path, aren't you worried that the price-level gap might close "too quickly" so that a relatively high inflation rates exists when we conclude the program?

> Response: With no prior experience with such a policy rule, it is impossible to rule out this risk. However, several factors seem likely to mitigate the adverse future consequences suggested by the question. First, steadfast commitment to exiting the state-contingent target-price-level policy should fortify an expectation that monetary policy will henceforth pursue an inflation goal of 2 percent. Second, if the slope of the target-price-level path is not too great at 3 percent, there is a reasonable likelihood that some resource slack will remain at the exit point and thus dampen future inflationary pressures. Third, providing some additional forward-guidance on the policy reaction function after the contingent policy is concluded could help to solidify future inflation expectations. For example, reminding economic agents and markets that, once the liquidity trap conditions have ended, the Committee would fiercely defend the inflation objective with appropriate monetary restraint as called for. Perhaps even mentioning how an aggressive Taylor principle response would be particularly appropriate in those circumstances.

Question #5: How confident can we be that the economy will improve and the unemployment rate will decline under this policy? I.e., what if the currently high unemployment rate represents too much structural unemployment?

> Response: Analysis and research on the zero-lower-bound constraint for monetary policy and liquidity traps strongly suggests that the current economic weakness combined with low inflation is due to limits in aggregate demand. In particular, the strong savings behavior of households and businesses, combined with a high-degree of risk-aversion with regard to future decision-making, is consistent with an economy that would benefit from further accommodation in credit rates. This will be facilitated by returning currently low inflation rates toward their longer-run objective of 2 percent, combined with correcting for past under-runs and adding a modest, temporary percentage point premium. However, if structural unemployment levels are substantially higher than expected, a more rapid closing of resource slack will increase inflation and close the target-price-level gap more quickly. Under this alternative scenario where the gap closes quickly, less time will be spent in the policy regime where the price path is increasing at a 3 percent rate. Consequently, the state-contingent policy path should generate a lower price-level path if the size of the liquidity trap problem is smaller. This is an attribute of the policy.

Question #6: With short-term interest rates at zero for such a long-period of time, how can the Federal Reserve guard against a return of destructive financial exuberance and another financial market crash?

> Response: Under our previous responsibilities and new authorities under Dodd-Frank, the Federal Reserve will use appropriate macro-prudential supervision and regulation, as always, but especially during this period. The Committee will regularly review the impact of these accommodative monetary policies on financial stability concerns and respond appropriately to mitigate any undue destructive exuberance.

Question #7: How will the Federal Reserve pay for these policies if the Fed's balance sheet ultimately increases to $4 Trillion and eventual increases in nominal interest rates lead to large capital losses?

> Response: The Federal Reserve is optimistic that policy actions of this magnitude will not be necessary given the commitment to our state-contingent price-level objective. Nevertheless, the normal interest-rate risk that central banks face is certainly very large under these policy actions. The Federal Reserve Act directs the Fed to promote financial conditions to support maximum employment and price-stability. The Committee's actions today are viewed as essential for meeting our Congressionally-mandated responsibilities. The Federal Reserve has several tools available in order to address the implications of capital losses on our balance sheet.