Rising Swiss Inflation?

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Abstract:
The apparent success of the Swiss in conquering high rates of inflation and maintaining an inflation rate of below two percent for over two years does not mean that the current policies of the Swiss Central Bank will continue this performance. Expectations of future low rates of inflation, which are based solely on the previous performance of prices in Switzerland, will miss the important change in Swiss monetary policy which occurred in 1975. Predictions of Swiss inflation based on monetary growth reveal a rising trend for Swiss prices over the next few years.

Article:
Low rates of inflation and a solid economic recovery from the 1974-1975 recession have led to occasional articles Journal in the Wall Street Journal and other publications raising the Swiss and their economic policies.[2] While the Swiss may be hailed as a tough breed of people who can "bite the bullet," there is nothing unique about the policies which have contributed to the current economic situation. ..Nor did the Swiss have less inflation to purge from their economy than did other countries. From 1970-1974, the Swiss experienced rates of inflation of between five to eleven percent with an average rate of seven-and-one-half percent. Swiss inflation was primarily caused by the excessive monetary expansion resulting from the Swiss National Bank's (SNB) acquisition of foreign reserves to maintain a fixed exchange rate. Monetary growth (MI) ranged from eight to eleven percent from 1968-1970 and was almost twenty-four percent during 1971. Despite a tightening of monetary growth from 19721974, long lags in effect of monetary growth on Swiss prices kept Swiss inflation above five percent until mid-1975.

SWISS MONETARY POLICY
The most important change in monetary policy occurred in early 1973 when the SNB decided to abandon a fixed exchange rate and "allow the Swiss franc to float. This action eliminated' the automatic increases in the monetary base which resulted when the SNB had to intervene in the foreign. exchange market and buy literally billions of Swiss francs of foreign reserves to maintain a fixed exchange rate. Research has shown that the SNB had almost no control over the monetary base during the period of fixed exchange rates.[2] Sterilization of foreign reserve increases in the base by open-market sales of bonds is limited by the lack of government security holdings of the SNB. While the SNB did sterilize 1.75 billion SF of foreign reserves in a special blocked account in August 1971, the other 5.75 lion SF inflow of foreign reserves was repatriated by domestic sources and not subject to the special sterilization procedures. The SNB was not able to institute a restrictive monetary policy until it floated the Swiss franc in February 1973. For the two-year period ending in February 1975, the monetary base declined by about four percent while the money supply declined by less than one percent.

The severe reduction in monetary growth and the OPEC oil price increase were the major factors which contributed to the severity of the Swiss recession. The Swiss were able to keep their unemployment rate below one percent by exporting foreign workers, but gross national product declined by seven-and-one-half percent in 1975 which followed the zero growth in 1974. While it is doubtful that the Swiss authorities would have chosen such a severe recession, the effect of no monetary growth in 1973 and 1974 has been the major factor contributing to the reduction of Swiss inflation to below two percent for the past two years.

The change in policy which has escaped comment and analysis was the 1975 decision by the SNB to set a target rate of six percent annual growth for both the base and narrowly defined money supply. This monetary target was set by the SNB in an effort "to establish a policy of easy credit that would permit a non-inflationary revival of activity, and . . . to check the upward trend of the Swiss franc by controlling capital movements and continuing to intervene on the foreign exchange market."[3] The economic recovery from the 1974-1975 recession has been fueled by the expansionary monetary policy which has resulted in a twelve percent increase in the money supply over 1975 and "1976.

EXPECTATIONS OF SWISS INFLATION

Prediction4 of continued inflation rates of below two percent for the next few years appear to be overly optimistic in light of the renewed monetary growth. Economists have often based expectations of future inflation rates on. a linear function of past rates of inflation. Expectations which are based on past history do not fully utilize the information on current economic policies available to economic decision makers. "Individuals will find it to their advantage to gather information about the way the economy generates inflation, and on the most important variables in that process, in order to form more accurate forecasts of the future course of inflation."[4] Predictions of Swiss inflation should be based upon economic variables which have been significantly related to Swiss inflation in previous years.

Predicting Swiss inflation is important with regard to international investment and the expected future value of the Swiss franc. The purchasing power parity theorem suggests that divergences in inflation rates and the purchasing power between two countries will be equalized by exchange rate changes. This does not suggest that the purchasing power parity theorem gives a complete theory of exchange rate determination, since the difference between monetary growth, the growth of real income and changes in the interest rate differential are essential for even a simple reduced-form equation to estimate changes in exchange rates.[5] But an increase in Swiss inflation given a constant inflation rate in a second country and other *ceteris paribus* conditions will have the tendency to reduce the appreciation (or result in a depreciation) of the Swiss franc against the currency of the second country. A continuation of the appreciation of the Swiss franc against the dollar which has occurred in the past few years is not a certainty. A certain mystique over the Swiss franc may have emerged in recent years which is reinforced by optimistic projections of two percent inflation in the future. The Swiss franc may have been.an excellent hedge against inflation in previous years, but there is no guarantee that the appreciation of the Swiss franc will continue.

DILEMMA OF PRESENT MONETARY POLICY

One of the two present goals of Swiss monetary policy is to limit the appreciation of the Swiss franc through capital controls and by intervening in the foreign exchange market. The evidence shows that the SNB acquired foreign reserves totalling 1.2 billion SF in 1975 (+4.7%) and 4.0 billion SF in 1976 (+ 15.1%). In recent weeks (September 1977), the SNB has had to re-enter the foreign exchange market to buy foreign reserves to contain the appreciation of the Swiss franc against the dollar. Yet, Mr. Leutwiler, president of the SNB, was reported in the *Wall Street Journal* as stating "that we are quite prepared to accept some appreciation of the Swiss franc in order to maintain the country's low rate of inflation."[6] Mr. Leutwiler's comment underscores the potential conflict between the goal of six percent monetary growth and a goal limiting the appreciation of the Swiss franc. In an effort to limit the appreciation, the SNB may have to acquire sufficient foreign reserves to increase the growth of the monetary base and the money supply above its six percent target. The potential conflict of the SNB buying foreign reserves to maintain a present exchange rate target versus the future inflationary effects of excessive increases in foreign reserves must be understood.

PREDICTING SWISS INFLATION

Predictions of Swiss inflation through 1980 suggest that the present monetary target of six percent is excessive. Inflation will rise significantly above the current 1.3% annual rate to over 4.0% over the next three years if the SNB maintains its six percent target rates of monetary growth. The predictions are based upon estimates of a reduced-form equation obtained from a simple macroeconomic model. The quarterly growth of the Swiss consumer price index was regressed against the current and past quarterly growth rates of money, government expenditures, tax receipts, exports and import prices. The results showed that the quarterly growth rates of money (MI) lagged over a sixteen quarter period can explain up to seventy-five percent of the quarterly inflation rates. The coefficients of government expenditures, tax receipts, exports and import prices were found to be insignificant over the 1957- .1972 period. The same results held for other time periods except that the coefficient for import prices was significant for the 1973-1975 period. Therefore, a dummy variable was used to pick up the influence of the OPEC oil price increase for a six quarter period beginning in 1973/IV. The following equation was run for the 1957-1976 period to obtain coefficients for MI to use to predict quarterly inflation rates for 1977-1980. Results, obtained by the Cochrane-Orcutt method which was used to eliminate first-order autocorrelation, are shown in equation 1. T-scores are shown in parentheses.

$$1.\ P = \underset{(-0.87)}{-.002} + \sum_{0}^{16} \underset{(4.41)}{.608}\, M_{t-n} + \underset{(3.26)}{.015}\, DUM \qquad R^2 = .7557 \quad \bar{R}^2 = .6824 \quad DW = 1.97 \quad \rho = .417$$

where

P = quarterly change in Swiss cost-of-living index

M = quarterly growth of the monetary variable: M_1 or the base

DUM = dummy variable for OPEC oil price increase = 1 1973IV to 1975I and = 0 elsewhere

Predictions of the price changes 'for the twel6e months ending in the designated quarter are given for three alternative monetary growth rates. The predictions suggest that regardless of whether Swiss monetary growth is two or ten percent in 1977, the rate of inflation will be very close to one percent for the year. Curren monetary growth would not have an impact until 1978. A two percent rate of monetary growth for 1977-1978 would keep Swiss inflation under two percent in 1978; whereas, a ten percent rate of monetary growth for 1977 and 1978 would 'result in inflation rising almost three percent in 1978 and above five percent in 1979. A continuation of a six percent rate of monetary growth suggests that inflation will rise above two percent in 1978, above three percent in 1979 to four percent in 1980. The SNB will have no one to blame but its own expansionary policies when Swiss inflation begins to steadily rise in late 1977 and early 1978.

Table 1

Predictions of Changes in Swiss Cost-of-Living Index for Alternative Rates of Monetary Growth*

		10% M	6% M	2% M
77	I	0.2	−0.1	−0.4
	II	0.6	0.2	−0.4
	III	0.6	0.0	−0.2
	IV	1.2	0.8	1.0
78	I	2.3	1.7	1.6
	II	2.8	1.8	1.3
	III	2.9	2.1	1.2
	IV	3.4	2.3	1.1
79	I	4.2	2.5	0.8
	II	4.8	2.9	1.2
	III	4.9	3.1	1.7
	IV	5.4	3.5	1.7
80	I	5.8	3.9	1.8
	II	6.0	3.9	1.6
	III	6.4	3.9	1.5
	IV	6.9	4.0	1.4

*Figures are price changes for the last twelve-month period.

CONCLUSION

The Swiss have demonstrated that double-digit inflation can be purged from an industralized country through monetary restraint at the cost of a recession. The policy makers at the SNB have decided to re-expand the monetary base and the money supply at a six percent annual rate to stimulate the economy and to limit the appreciation of the Swiss franc. This change in-policy should increase the expectation of higher rates, of Swiss inflation in the future. The empirical work suggests that a continuation of this monetary policy will result in Swiss inflation increasing to a four percent annual rate in 1980.

FOOTNOTES

1 See for example: Lindley Clark, "Speaking of Business," Wall Street Journal, January 24, 1977. Richard Janssen, "The Outlook," Wall Street Journal, September 26, 1977, p. 1. Donald S. Kemp, "Economic Activity in Ten Major Industrial Countries: Late 1973 through Mid-1976," Federal Reserve Bank of St. Louis Review, October 1976, pp. 8-15.

2 Stuart D. Allen, The Causation of Swiss Inflation: 1952-1975, unpublished dissertation, University of Virginia, 1977, specifically chapter 5.

3 OECD Economic Surveys, Switzerland, March 1977, p. 39.

4 John Rutledge, A. Monetarist Model of Inflationary Expectations, Lexington: Heath and Company, p. 7.

5 Thomas Humphrey and Thomas Lawler, "Factors Determining Exchange Rates: A Simple Model and Empirical Tests," Federal Reserve Bank of Richmond Economic Review, May/June 1977, pp. 10-15

6 “Swiss Francs Post Third High in Row, But U. S. Dollar Rises in Other Markets,” Wall Street Journal, September 23, 1977.