SECURITY PACIFIC CORPORATION

GLOBAL TRADING
PRIMARY DEALERS IN U.S. GOVERNMENT SECURITIES
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ROBERT J. BANNON
Vice President &
Money Market Economist
213-229-1139

IN THIS ISSUE:

Leading Indicators of Inflation

With the recent discount rate hike by the Fed predicated on the possibility of a return of higher inflation, forecasts of future inflation have taken on a greater sense of urgency. We examine here two simple models that can be used to predict inflation. The Morosani index, developed by John Morosani of C.J. Lawrence, Inc., is designed for forecasting longer-term trends in inflation. The second model is a simple, autoregressive model designed for very short-term forecasts. Both models have problems but the autoregressive model still holds up fairly well.

The Morosani model requires three variables: the year-over-year percentage change in the All-Urban Consumer Price Index (PCPIU); the Federal Reserve's trade-weighted index of the U.S. dollar (TRDWT), an index based on our trade patterns with 11 major trading partners; and the capacity utilization rate of the nation's mines, utilities, and manufacturers (UCAP).

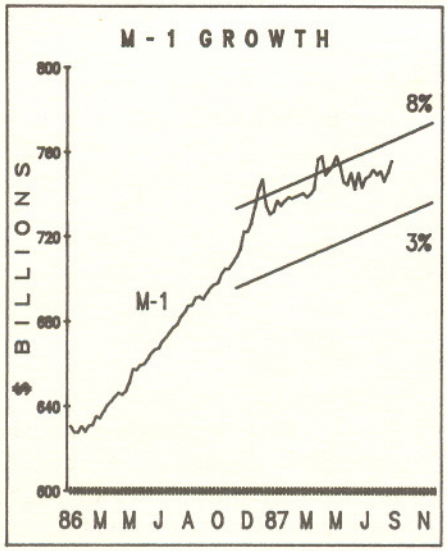
The Morosani model theory is relatively simple. Capacity utilization measures the expansionary pressures in the economy. The higher the percentage, the greater demand pressures are being put on the markets for the various factors of production. Greater price pressures should lead to higher inflation in the future. As the dollar falls, the price of imported goods rises, and until demand is depressed by the higher import prices, measures of inflation like CPIU should rise.

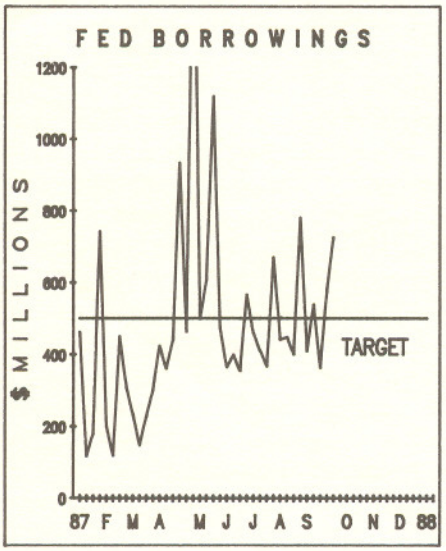
Specifically, Morosani performs a regression of the percent change in CPI on the ratio of capacity utilization divided by the trade-weighted dollar, plus a constant. The ratio of UCAP to TRDWT is lagged by 12 months, to more fully reflect for the effects of changes in the dollar's value. The regression and summary statistics are presented below.

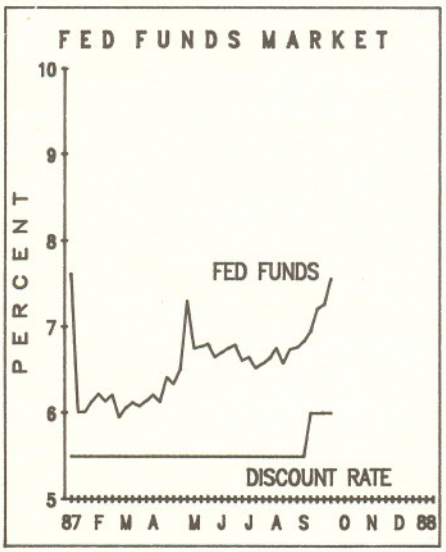
$$PCPIU = B_0 + B_1 * (UCAP/TRDWT)_{-12}$$

	COEFFICIENT	T-STATISTIC
B_0	-12.578	-24.07
B_1	25.397	36.78

R-SQUARED	85.2%
STANDARD ERROR	1.24
DURBIN-WATSON	0.15







Statistically, the Morosani results may be unreliable. Although an R-squared of 85 percent is considered good, time series data typically have very high R-squared. The standard error is a measure of how much the predicted value of PCPIU is different from the actual value, on average. A standard error of 1.24 means that the models' predictions within the sample miss on average by plus or minus 1.24 percentage points. The Durbin-Watson (DW) statistic is terrible. A DW statistic can range between 0 and 4. Two is considered good, whereas the closer your results are to 0 or 4, the more problems you have. In particular, a DW close to 0 indicates serious positive autocorrelation. In plain English, positive autocorrelation means that forcasts tend to consistently underestimate or overestimate for long periods of time, rather than fluctuating randomly around the correct answer.

The autoregressive model fairs a bit better than the Morosani index, at least on the previously mentioned criteria. The ARIMA model that seems to work best for PCPIU is:

$$PCPIU = B_0 * PCPIU(-1) + B_1 * PCPIU(-2)$$

Where PCPIU(-1) and PCPIU(-2) are simply the percent change in CPI, lagged one month and two months, respectively. The relevant statistical output for this model is:

	COEFFICIENT	T-STATISTIC
B_0	1.435	24.26
B_1	-0.437	-7.39

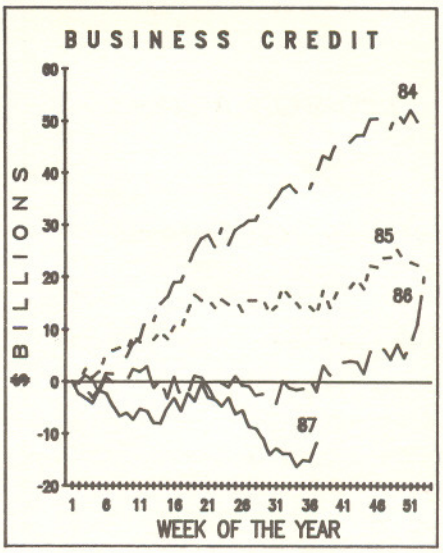
R-SQUARED	98.8%
STANDARD ERROR	0.36
DURBIN-WATSON	2.19

The R-squared, which measures the correlation of PCPIU to the model's forecast of PCPIU (actually, the correlation squared) is quite high. The DW statistic is comfortably near 2 and the T-statistics are well over 2 (with no bias from a poor DW statistic). Moreover, the standard error is about one-fourth as large as the Morosani standard error.

So what are the two models forecasting for upcoming inflation? Both models have been affected in recent years by changing patterns in inflation. In particular, the Morosani index, whose explanatory power rose to 91 percent in the early 80's, lost explanatory power in the 84-87 period (down to 3% R-squared). The autoregressive model also lost explanatory power, but only from 99 percent to 90 percent. Using the estimates from the best and worst subperiods, as well as the overall period, the following forecasts would be derived for the remaining months of 1987 (bear in mind the models forecast year-over-year changes).

	Morosani			Autoregressive		
	OVERALL	BEST	WORST	OVERALL	BEST	WORST
Sept	6.07	3.73	6.15	4.44	4.49	4.46
Oct	6.18	3.75	6.25	4.44	4.52	4.51
Nov	6.01	3.72	6.09	4.39	4.48	4.52
Dec	6.33	3.77	6.40	4.31	4.37	4.52

Clearly the autoregressive model forecasts are the least affected by the choice of sample period. Neither model gives a definitive direction for inflation. The autoregressive model does indicate that inflation will end the year at about 4.5 percent, which is a commonly held outlook.



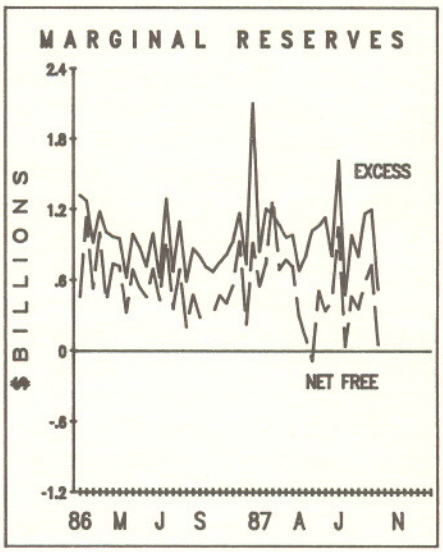
August FOMC Minutes

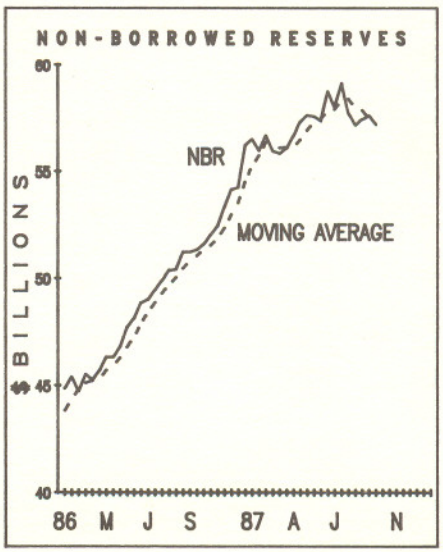
The Directive: The FOMC voted to leave policy unchanged. However, unlike the July meeting, the FOMC left a conditional proviso that allowed for the tightening of reserves, at the discretion of the New York trading desk. When listing their priorities as to what might trigger the need for such a tightening, the Directive listed, in order: indications of inflationary pressures, strength of business expansion, developments in the foreign exchange markets, and the behavior of the money supply aggregates.

Economic Outlook: The members were impressed by the resurgence in real economic activity, particularly in the employment sector and in capital spending. The only troubling sector was the housing market, hit by the rise in mortgage rates. In fact, the debate as to policy centered much more around the inflationary implications of strong economic growth, rather than on how to keep the expansion going.

Inflation: The Minutes showed that an unusual amount of attention was focused on inflation. Although not mentioned in the minutes, it can be presumed that Chairman Greenspan was at the forefront of the anti-inflation crusade. Despite their preoccupation with the subject of inflation, little mention was made of where the inflation was going to come from, other than possibly the energy sector, or where the current signals of such inflation were. Most of the discussion of inflation centered on a general feeling that if the economy heated up too quickly, inflation would increase.

Discount Rate Move: No mention was made anywhere as to the possibility of raising the discount rate, despite the fact that it was raised less than three weeks later. Little mention was made of the shape of the yield curve, except a quick mention that long-term rates seemed to be showing evidence of heightened inflation fears. The widening of the yield curve, according to news reports, had been a major factor in the Fed's consideration of a discount rate hike.





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OCTOBER ECONOMIC INDICATORS

9/28 Treasury Auction 3/6 Mo Bills: $12.8B	9/29 Treasury Auction 2-yr Note: $9.25B	9/30 Leading Ind. July: +0.3% Aug: +0.6% Treasury Settlement 2-yr Note: $9.25B Treasury Auction 52-wk Bill: $9.25B	1 Factory Orders July: +0.3% Aug: -1.7% Const. Spending* Aug: +1.6% Treasury Settlement 52-wk bill: $9.25B Treasury Auction 3/6 Mo Bills: $12.8B M1: 9/21 +$3.5Bf	2 Unempl. Rate(5:30 am Aug: 6.0% Sept: 5.9% Non-Agr. Employment Aug: +152,000 Sept: +132,000
5 Index of Pur. Mgr. Survey* Aug: 59.9% Sept: Treasury Auction 3/6 Mo Bills: $12.8B Auto Sales: 9/21-9/30: 6.8Mf	6 Treasury Auction 4-yr Note: $7.25B	7 Cons. Ins. Credit (am) July: +$3.5B Aug: +$4.0Bf Treasury Auction 7-yr Note: $6.75B	8 M1: 9/28 -$3.0Bf	9
12 Holiday	13 Treasury Auction 3/6 Mo Bills: $12.8Bf	14 Retail Sales(5:30am) Aug: +1.3% Sept: -0.7% Trade Bal.(5:30am) July: -$16.4B Aug: -$14.5Bf Treasury Announ. 2-yr Note: $9.25Bf	15 Wholesale Inv.* July: -0.5% Aug: M1: 10/5 +$2.0Bf M2: Sep +$12.0Bf M3: Sep +$15.0Bf Treasury Settlement 4-yr Note: $7.25B 7-yr Note: $6.75B	16 PPI Aug: unchanged Sept: +0.4%f Ind'l. Prod.(6:15 am) Aug: +0.3% Sept: -0.2%f
19 Capacity Util. Aug: 81.0% Sept: 80.7%f Treasury Auction 3/6 Mo bills: $12.8Bf	20 Housing Starts Aug: 1.58M Sept:	21 Treasury Auction 2-yr Note: $9.25Bf	22 M1: 10/12 -$1.0Bf	23 GNP (5:30 am) 87.2Q +2.5% 87.3Q +2.8%f CPI (5:30 am) Aug: +0.5% Sept.: Durables Orders* Aug: -3.1% Sept:
26 Pers. Income(7:00am) Aug: +0.6% Sept: PCE Aug: +1.5% Sept: Treasury Auction 3/6 Mo Bills: $12.8Bf	27	28 Treasury Announ. 3-yr Note: $.75Bf 10-yr Note: $9.25Bf 30-yr Bond: $9.00Bf	29 Treasury Settlement 52-wk Bill: $9.25B M1: 10/19	30 Leading Ind. Aug: Sept: New Home Sales* Sept: Agricultural Prices* Mid-October

SECURITY PACIFIC - ECONOMICS DEPARTMENT H8-70 f=forecast, r=revised Last Revised 10/02/87

*Items due for release but not included in the forecast