FRBSF WEEKLY LETTER

Number 91-26, July 19, 1991

Consumer Confidence and the Outlook for Consumer Spending

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.

The economic recession has been widely attributed to a collapse of consumer confidence beginning in August of last year, following Iraq's invasion of Kuwait. A recovery in confidence therefore could spur consumer spending and the economic recovery. After hitting bottom between October and January, both the Michigan and Conference board indexes of consumer confidence moved up sharply in March, and then receded somewhat in the next two months.

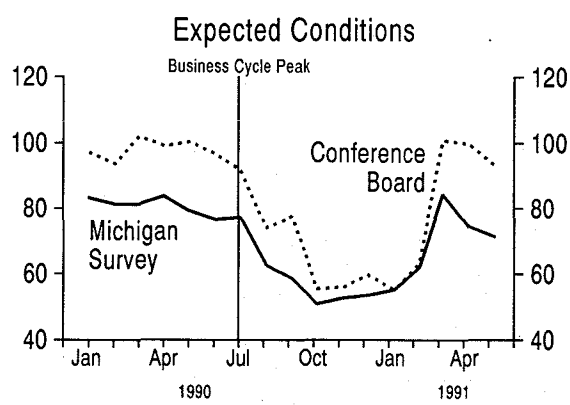
Although both indexes point to a recovery, their underlying components are giving off conflicting signals. The "expected conditions" component of each index has risen sharply since January. But the "current conditions" component of the Conference Board Survey has continued to fall, while a similar component of the Michigan survey has risen relatively little. (See the accompanying chart.) Depending on the importance of these various components of confidence for predicting consumer behavior, we could soon see expenditures on consumer durables either rise sharply, signaling a recovery, or even fall, implying that the recession is dragging on.

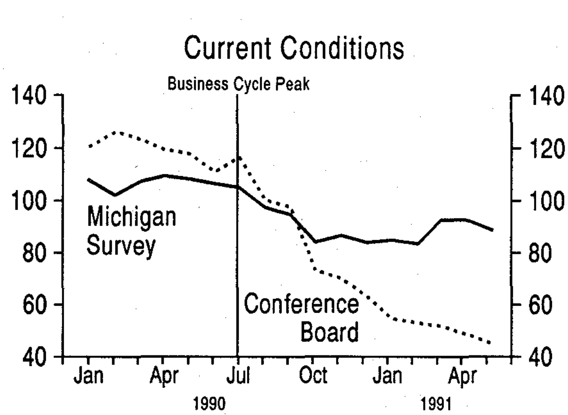
This *Weekly Letter* discusses the differences between the Michigan and Conference Board surveys of consumer confidence as well as the track record of these two surveys, and their components, in predicting subsequent consumer expenditures on consumer durables. The results of the analysis are then used to evaluate the outlook for consumer spending.

What the surveys ask

Surveys of consumer confidence have been found to be helpful in predicting expenditures on consumer durables. The most important thing that these surveys appear to measure is household perceptions of uncertainty or risk associated with the likelihood of job loss, severe income loss, and attendant financial distress. Household spending on durables may be affected by perceived uncertainty because cutting back on purchases of durables is a relatively low cost way of adjusting to the likelihood of a future shortfall of income.

Indexes of Consumer Confidence





Both surveys of consumer confidence have a set of questions relating to household perceptions of current economic conditions. The Michigan survey asks whether the household is now financially better off than it was a year ago and whether now is a good time to buy a major household item. In contrast, the Conference Board survey asks for appraisals of current business conditions and current employment conditions. Thus, the current conditions component of the Michigan survey tends to focus more directly on the risk of near-term financial distress and its implications for current purchases of consumer durables.

Both surveys also contain a set of questions on expectations of future economic conditions. The Michigan survey asks whether households expect to be better off financially a year from now and what the prospects for the economy are likely to be both one year and five years in the future. The Conference Board survey focuses on nearer-term expectations, asking about expected business conditions and household employment and income six months hence.

Do surveys help in forecasting?

The predictive power of the two surveys was tested within the context of a stock-adjustment model of consumer expenditures on durables. In this framework, consumers purchase durables as they adjust the actual stock of durables to their desired levels. The desired stock of consumer durables depends on the level of total consumption and the cost of capital.

Importantly, the cost of capital depends not only on the level of interest rates and the physical rate of depreciation of durables, but also on uncertainty about future income. More uncertainty about future income increases the likelihood that consumers would have to sell durables in order to raise cash at a time of future financial distress. But since consumer durables are illiquid, a seller would receive less than their full value under such circumstances. Because of this loss to the seller a greater likelihood of financial distress increases the effective cost of capital for consumer durables. To the extent that surveys of consumer confidence measure the uncertainty and risk perceived by households, they therefore help to determine the desired stock of durables, and hence current purchases.

To evaluate the usefulness of these surveys, this model of consumer expenditures on durables was first estimated for the period 1971.Q1 through 1979.Q4. The model then was used to make an "out of sample" forecast of spending on consumer durables for the four-quarter period from 1979.Q4 through 1980.Q4, with and without the inclusion of survey measures of consumer confidence, or their components. Next, the parameters of the model were reestimated using data from the initial sample plus the four quarters just forecast, and a new four-quarter ahead forecast was made for the period from 1980.Q4 through 1981.Q4. These steps were then repeated to generate a sample of four-quarter ahead forecasts for the entire 1979.Q4 to 1990.Q4 period.

For the Michigan survey, the results suggest that the "current conditions" component contains all of the useful information for forecasting expenditures on consumer durables. Including only the current conditions component in the model reduced the (root-mean-squared) forecasting error substantially—by over ½—from what it would be without using any measure of confidence; using the overall index, which includes both components, reduced the forecasting error by much less—only about ⅕. Thus, the expectations component of the Michigan survey contains no useful information for forecasting expenditures on consumer durables, and indeed reduces the accuracy of forecasts. (This component is of value, however, in predicting expenditures on housing where longer-term decisions are involved.)

Given the importance of the current conditions component of the Michigan survey, it is significant that by May this component stood above its February lowpoint. For this indicates that an upswing in confidence should contribute to the growth of spending on consumer durables. About half of the total estimated effect of this measure of confidence on spending occurs contemporaneously and with a one-quarter lag, while the remainder happens over the next five quarters. At the same time, however, the current conditions component of the Michigan index cautions us not to expect a strong rebound. In May, this component had recovered only ¼ of the decline that began in August, versus about ½ for the overall index.

The performance of the Conference Board's survey is similar to the Michigan survey, though much weaker. Using only the current conditions component reduced forecasting errors by a third, while including the overall measure of consumer confidence in the model reduced forecasting errors by only 1/10.

As with the Michigan survey, then, the current conditions component contains all of the useful information for forecasting expenditures on consumer durables. However, forecasting errors using the Conference Board survey exceed those with the Michigan survey by more than 1/3.

Conclusion

The results of this analysis indicate that the most accurate forecasts of expenditures on consumer durables can be obtained by including the current conditions component of either the Conference Board or University of Michigan surveys of consumer confidence in a stock-adjustment model of consumer purchases. At the present time, however, this component has been moving in opposite directions in the two surveys. The Michigan survey is predicting a recovery in expenditures on consumer durables, while the Conference Board survey indicates a continued depressive effect of consumer confidence on purchases.

Greater weight can be put on the predictions of the Michigan survey because of its lower forecasting errors over the past decade. Properly interpreted, however, even the Michigan survey is forecasting only a relatively modest recovery in consumer expenditures on durables. By April, the overall Michigan index had recovered over 1/2 of the decline that began last August. But over the same period the current conditions component of the Michigan index—which is the most useful for forecasting—had regained only a quarter of its earlier decline. Thus, even the Michigan survey indicates that the consumer is not yet a strong force for economic recovery.

Adrian W. Throop
Research Officer

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
2/1	(91-5)	Taiwan's Trade Surpluses	Moreno
2/8	(91-6)	Controlling Inflation	Furlong/Trehan
2/15	(91-7)	District Agricultural Outlook	Dean
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

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