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## **The University of Michigan's Consumer Sentiment Index<sup>1</sup>**

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What is consumer confidence? The term is now part of popular culture. Consumer confidence is cited by government officials, business executives, the media, as well as by ordinary consumers to describe national economic conditions. It has become so much a part of the national economic dialog that many people think that consumer confidence has a specific and widely agreed upon definition. Nonetheless, it should be no surprise that the definition of consumer confidence has remained elusive since the “confidence” of consumers can never be directly observed; it is only the behavior of consumers that can be observed. Interest in consumer confidence is thus defined by our interest in the economic behavior of consumers.<sup>2</sup> It is the consumer that determines whether the economy moves toward expansion and growth or toward contraction and recession. Indeed, consumer spending and residential investment account for three quarters of all spending in the domestic economy, and consumers invest more in homes, vehicles, and other durable goods than business firms invest in new structures and equipment.

The usefulness of measures of consumer sentiment as leading economic indicators has garnered worldwide recognition and is now measured by countries in all six inhabited continents. The countries include: Argentina, Austria, Australia, Belgium, Bulgaria, Brazil, Canada, China, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Indonesia, Ireland, Italy, Jamaica, Japan, Korea, Lithuania, Luxembourg, Latvia, Malaysia, the Netherlands, Mexico, Norway, New Zealand, Poland, Portugal, Romania, Russia, Spain, the Slovak Republic, Slovenia, South Africa, Sweden, Switzerland, Taiwan, Thailand, Turkey, the United Kingdom, and the United States. In addition, there are a large number of other Central and South American countries that have measured consumer confidence sporadically without the establishment of a consistent time series.

### **Born for Peace**

The economic behavior research program at the University of Michigan began as part of the post-WWII planning process. Its agenda was focused on understanding the role of the consumer in the transition from a wartime economy to what all hoped would be a new era of peace and prosperity. The primary purpose of the first survey in 1946 was to collect data on household assets

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<sup>2</sup>Some may argue that an appropriate societal goal is to have economic conditions that promote confident and optimistic consumers. In this sense, consumer confidence could be considered a social indicator that has importance apart from any impact on behavior.

and debts. The sponsor of the survey, the Federal Reserve Board, initially had little interest in the attitudes and expectations of consumers. Their goal was a financial balance sheet, the hard currency of economic life, not the soft data of consumer sentiment. George Katona, the founder of the survey program, convinced the sponsor that few respondents would be willing to cooperate if the first question asked was: "We are interested in knowing the amount of your income and assets. First, how much do you have in your savings account?" Sound survey methodology required that other, more general and less threatening questions were first needed to build rapport and to establish a sense of trust and confidence with the respondents.

Katona devised a conversational interview that introduced each new area of interest with questions that first elicited their general opinions before asking the detailed questions on dollar amounts. Although the sponsor was convinced that such attitudinal questions were needed for methodological reasons, Katona was told that he did not need to report any of these results since they had no interest in the attitudinal findings. Ultimately, the Federal Reserve Board, as well as many others, became as interested in the findings on consumers' expectations as on consumers' balance sheets. Although the first measures of consumer expectations may seem serendipitous, it was in reality no happenstance. Katona had clear and unmistakable intentions, and seized this opportunity to give life to an innovative research agenda. Katona had long been interested in the interaction of economic and psychological factors, what he termed the human factor in economic affairs.<sup>3</sup> When Katona advocated his theory of behavioral economics few economists listened; fifty years later behavioral economics is at the center of new theoretical developments.

When the sentiment measure was first developed in the late 1940's, it was intended to be a means to directly incorporate empirical measures of income expectations into models of spending and saving behavior. Katona summarized his views by saying that consumer spending depends on both their "ability and willingness to buy." By spending, he meant discretionary purchases; by ability, he meant the current income of consumers; and by willingness, he meant consumers' assessments of their future income prospects. Katona hypothesized that spending would increase when people became optimistic, and precautionary saving would rise when they became pessimistic.

Consumer confidence was originally conceptualized as a broad measure of expected changes in income. It was not simply the expected size of a consumer's future income, but the certainty or uncertainty that was attached to those expectations. Thus, an important component of the definition of consumer confidence was that it encompassed both the expected level as well as the expected variance of income. To recognize this dual criterion, Katona defined the dimension of consumer confidence as ranging from optimism and confidence to pessimism and uncertainty.

Moreover, Katona argued that consumer confidence has affective as well as cognitive dimensions. Indeed, it was this recognition that led Katona to change the name of the index from "consumer confidence" to "consumer sentiment." Katona was not tilting his measure toward the "animal spirits" of Keynes, but simply recognized that few consumers thought of inflation or unemployment, for example, without making evaluative judgments. The affective components of

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<sup>3</sup>Katona documented the development of his theories in a series of books: *Psychological Analysis of Economic Behavior* (1951), *The Powerful Consumers* (1960), *The Mass Consumption Society* (1964), and *Psychological Economics* (1975). For an overview of Katona's theoretical contributions, as well as a complete list of his publications and biographical information see Curtin (1983) and for a more detailed description of the theoretical developments see Curtin (2004).

economic attitudes and expectations are what serve to integrate diverse pieces of economic information. Moreover, it is the affective component that enables waves of optimism or pessimism to sweep across the population with great speed.

The University of Michigan's Index of Consumer Sentiment was formed at the start of the 1950's when sufficient time-series data had been collected. The Index is based on the responses to five questions; two questions on personal finances, two on the outlook for the economy, and one question on buying conditions for durables.<sup>4</sup> While he would have preferred to report on the detailed findings from the surveys, Katona recognized that a summary index is needed for both the ease of dissemination as well as empirical testing. It is inherently difficult to summarize the diverse implications for all forms of consumer spending in a single index, and there was never an attempt to do so. Indeed, the Michigan surveys include a large range of additional questions. The questions range from income, unemployment, interest rates, and inflation expectations to what respondents think are the most important recent changes in economic conditions, measures about buying conditions for a variety of products, attitudes toward savings and debt, holdings of various assets, and many other topics.

## Sample Design

The monthly survey is based on a representative sample all adult men and women living in households in the coterminous United States (48 States plus the District of Columbia). A one-stage list-assisted random digit design is used to select an equal probability sample of all telephone households; within each household, probability methods are used to select one adult as the designated respondent. The equal probability design permits the computation of sampling errors for statistics estimated from the survey data.

The sample is designed to maximize the study of change by incorporating a rotating panel in the sample design. An independent cross-section sample of households is drawn each month. The respondents chosen in this drawing are then re-interviewed six months later. A rotating panel design results, with the total of 500 monthly interviews made up of 60% new respondents, and 40% being interviewed for the second time. The rotating panel design has several distinct advantages. This design provides for the regular assessment of change in expectations and behavior both at the aggregate and at the individual level. The rotating panel design also permits a wide range of research strategies made possible by repeated measurements. In addition, pooling the independent cross-section samples permits the accumulation of as large a case count as needed to achieve acceptable standard errors for critical analysis variables.

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<sup>4</sup>The questions are: a) We are interested in how people are getting along financially these days. Would you say that you (and your family) are better off or worse off financially than you were a year ago? b) Now looking ahead--do you think that a year from now you (and your family) will be better off financially, or worse off, or just about the same as now? c) Now turning to business conditions in the country as a whole--do you think that during the next twelve months we'll have good times financially, or bad times, or what? d) Looking ahead, which would you say is more likely--that in the country as a whole we'll have continuous good times during the next five years or so, or that we will have periods of widespread unemployment or depression, or what? e) About the big things people buy for their homes--such as furniture, a refrigerator, stove, television, and things like that. Generally speaking, do you think now is a good or a bad time for people to buy major household items?

## **Adaptation to Change**

In the late 1940s most consumers viewed all aspects of the economy through the single dimension of how it affected their job and income prospects. In the 21<sup>st</sup> century, while job and income prospects are still important, there are many other aspects of the economy that are just as important to consumers. For example, consumer expectations for interest rates, inflation, stock prices, home values, taxes, pension and health care entitlements as well as jobs and incomes have moved independently, and often in opposite directions. Furthermore, consumers are now more likely to make distinctions between the near and longer term prospects for inflation and stock prices as well as between near and longer term job and income prospects. Moreover, consumers have also recognized the importance of the global economy in determining wage and job prospects as well as determining the prices of products sold on Main Street and financial assets sold on Wall Street.

Demographic shifts also influence the measurement of confidence. The retirement of the baby boom generation will reduce their concerns about adverse developments in domestic labor markets in comparison to their heightened dependence on inflation adjusted returns on their retirement savings. The impact of globalization on financial markets is far greater and nearly instantaneous compared with its influence on labor markets. In addition, older consumers have different spending priorities and it can be expected that the importance of low import prices for durable goods will fade in comparison to the provisions for health care and other services to the elderly. More generally, the trend toward the increase in purchases of services compared with the purchase of durable goods requires a new conceptualization of consumer confidence.

As a result, the measurement of consumer confidence will become even more challenging as it will continue to expand into a broader and more complex assessment of economic prospects. Indeed, the economic environment may have become too diverse, and consumers too sophisticated, for any single index to accurately and unambiguously describe consumers as either optimistic or pessimistic. It may be true that no single index can be devised to accurately predict all types of expenditures for all types of consumers at all times. The most accurate models of consumer behavior will relate specific spending and saving behaviors to specific expectations. Nonetheless, there is still a need for an overall index of consumer sentiment that broadly summarizes trends, just as there is a need for aggregate statistics such as GDP.

Along with the growing sophistication among consumers, there is a growing demand for more precise measures of expectations. As expectations have become more central components of economic models, the theoretical specifications of the desired measures have become more exacting. Economists generally favor probability measures while psychologists generally favor verbal likelihood questions. Numeric probability scales are assumed to allow the comparability of responses among different people, across situations, and over time. The simple formulations of verbal likelihood scales, in contrast, are presumed to be answerable by nearly everyone, even by those with limited information or computational skills. The Michigan surveys now incorporate both types of measures.

The strength of household surveys is that they are based on the premise that the description and prediction of consumer behavior represent the best means to foster advances in theory. While there is nothing more useful than good theory, there is nothing more productive in generating

theoretical advances than good data. To this end, the Michigan surveys have always stressed the substance of the research rather than the format of the questions or the components of the sentiment index. The more rapid changes that may accompany an aging population and the globalization of the economy are seen as an opportunity for scientific advancement. Consumer confidence will still be part of popular culture, still be thought to have a specific and widely agreed upon definition, and still be an unobserved variable that is defined by the evolving economic behavior of consumers.

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