Consumption, Aggregate Wealth, and Expected Stock Returns

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Journal of Finance
vol. 56, no. 3 (June 2001):815–849

The authors study how the relationship between current wealth and current consumption can be used to predict future aggregate share returns. They find that aggregate consumption, aggregate asset holdings, and aggregate labor income share a common trend. Deviations from this trend provide information about future aggregate share returns. Over the shorter term (three months to six years), this information provides significantly superior predictions compared with those from variables suggested in previous research.

Are aggregate stock returns predictable? Previous research has shown that price-to-earnings ratios, price-to-dividend ratios, and dividend-payout ratios provide information about future long-term share returns. When considering share returns over the shorter term (the length of the typical business cycle), previous research has generally not found share returns to be predictable. Lettau and Ludvigson investigate the relationship between aggregate asset holdings and aggregate consumption and find that this relationship can provide information to predict share returns over this shorter period.

The economic intuition behind this finding is as follows. A long-term relationship exists between people's wealth and their consumption. This relationship is not constant, because investors want to smooth their consumption over time. When they expect returns from their investments to decline in the future, they decrease their current consumption to dip below its long-term relationship with current asset holdings and current income. Similarly, they consume larger amounts from their current wealth and current income if they expect higher investment income. Deviations from the long-term relation-

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ship among current consumption, current wealth, and current income can provide information about future expected share returns.

Lettau and Ludvigson develop a model that describes the behavior of the investor/consumer. This model predicts that the ratio of consumption to aggregate wealth summarizes the investor's expectation about future share returns. Lettau and Ludvigson then test this hypothesis by considering the return on share indexes in the United States (Standard & Poor's Composite Index and value-weighted CRSP Index) over the research period from the fourth quarter 1952 to the third quarter 1998.

A problem with the analysis is that some of the data required in the model are not observable. Human capital forms an important part of asset holdings but cannot be directly observed. Lettau and Ludvigson have to assume that human capital remains in a constant relationship with observable asset holdings. Similarly, to obtain a total consumption figure, they have to make assumptions about the consumption of durable goods from the durable goods stock.

Despite these data problems, Lettau and Ludvigson show that the consumption and asset-holding data can be used to provide predictions about share returns. They find that aggregate consumption, asset holdings, and labor income are cointegrated, which means they share a common trend. They then find that deviations from this trend provide statistically and economically significant information about future share returns.

The authors compare the forecasting ability of their measure with others suggested from previous research (price-to-dividend ratios, price-to-earnings ratios, and dividend-payout ratios). They find that their measure is superior (with the exception that dividend yields outperform in forecasting returns for periods longer than six years).

Lettau and Ludvigson show that households try to smooth consumption. An important policy implication is that the real economy is less subject to changes in asset values than some people fear. Households have factored these changes into their consumption already.

Keywords: Economics: relationship of economic activity to the investment process