(2) Maki, Dean M., Palumbo, Michael M. "Disentangling the Wealth Effect: A cohort Analysis of Household Saving in the 1990s." Federal Reserve Board, 2001.

The authors attempt to address the question of whether wealth effects are direct rather than indirect, where the former suggests that saving should have fallen among the same groups of households whose portfolios benefited disproportionately from the increase in wealth during the second half of the 1990s, while the latter suggests that all households might have saved less of their incomes in response to the good macroeconomic news that drove up the stock market.

They investigate the evidence for a direct wealth effect by compiling a new data set using household level data from the Survey of Consumer Finances and aggregate data from the Flow of Funds Accounts, to enable them to estimate quarterly observations on saving flows and net worth levels both for income quintiles and education cohorts in the period understudy.

They next examine whether the groups of families whose portfolios benefited the most from the stock market boom of the latter 1990s are the same groups whose saving rates dropped the most. They find that during the 1990s, families in the uppermost 20% of the income distribution experienced by a wide margin the sharpest increases in net worth to income ratios and decreases in saving rates compared with families in the lower 80% of the income distribution, which reveals that the observed decline in the aggregate saving rate can be attributed to a change in the propensity to save out of income among the households whose portfolios gained the most from the stock market boom. Furthermore, the data showed that most of the aggregate increase in the ratio of net worth to income accrued to households headed by a person with some college experience or an advanced education degree compared to other education cohorts, and that a corresponding decline in saving rates among these two cohorts accounts for almost all of the overall decline in the aggregate saving rate.

They finally undertake an econometric analysis to estimate the marginal propensity to consume out of wealth, and found that the estimates are statistically significant and range from 3-5 cents to the dollar, which is well aligned with typical estimates from time series econometric models based on aggregate data.