## (7) Dvornak, Nikola, Kohler, Marion. "Housing Wealth Stock Market Wealth and Consumption: A Panel Analysis for Australia." Research Discussion Paper 23, Reserve Bank of Australia, 2003.

This paper addresses the question of how changes in stock market and housing wealth affect consumption expenditure in Australia. To overcome the multicollinearity of the two wealth variables which makes it difficult to disentangle their effects and might cause one of the variables to appear insignificant, the authors used state level data. This data is constructed from a panel of Australian states to mitigate this problem since each state's housing market is geographically distinct, thus the profile of housing wealth over time should differ from state to state, while stock markets are highly integrated across states and thus we would expect similar trends in the valuation of equity market portfolios across states.

They also employ a wide range of econometric techniques, in which they regress consumption expenditure, which includes durable goods, on income, stock market wealth, net dwelling wealth and net other financial wealth and controlling for household debt. The results show that the housing wealth effect is lower than the stock market wealth effect, where the latter is in the range of 6-9 cents to the dollar while the former is estimated to be around 3 cents. However, since household's housing assets are more than three times as large as stock market assets, these estimates imply that a 1% increase in housing wealth has an effect on aggregate consumption that is at least as large as that of a 1% increase in stock market wealth.

They further raise the question of how robust their results are to changes in the time period chosen considering the possibility that financial liberalization and deregulation could have created structural breaks in the underlying relationships that they are estimating, and thus they reestimated the model over different time periods, and found that wealth coefficients appear to be more stable through time, and whatever structural changes that might have occurred did not alter the finding that both types of wealth affect consumption, and that of the stock market is higher than that of housing.