TWO ESSAYS ON HEALTH CARE COSTS

AND ASSET RETURNS

Brian C. Payne, Ph.D.

University of Nebraska, 2010

Advisor: John M. Geppert

The first essay investigates whether health care is a priced factor in asset returns. Specifically, in the search for empirical relationships between macroeconomic factors and asset returns, health care appears to be a significant US economic force receiving less attention than others such as (aggregate) inflation, production or consumption measures. We use the medical care component of the Consumer Price Index to measure medial inflation shocks as a candidate macroeconomic factor whose riskiness the market rewards. Incorporating multiple model specifications during the period 1967-2009, we find this inflationary component to be a relatively robust source of priced risk in US stock returns.

The second essay demonstrates how a genetic algorithm (GA) technique with standard parameters and the appropriate fitness function can generate five-asset portfolios that effectively hedge macroeconomic risks, including health care cost inflation. Investigating 40 macroeconomic series-year combinations, the GA generates 36 (11) hedging portfolios that are weakly (unambiguously) preferred to unmitigated risk exposure in an out-of-sample analysis between 2005 and 2008. This same technique can create parsimonious mimicking or tracking portfolios for investable assets such as mutual funds and exchange-traded funds (EFTs), particularly in the down market of 2008.