This study investigates whether Japan's large budget deficits after the 1990s caused financial market agents to become more sensitive to the outlooks for inflation. We model relationship between budget deficits and long-term interest rates using time series models that encompass generalized autoregressive conditional heteroskedasticity for existence of time varying volatility in the data series. The results show statistically significant and robust evidence of the positive link between budget deficits and long-term interest rates in Japan under various model specifications. This positive link causes the yield curve to slope upwards within the range of 0.08% to 0.15% for a 1% increase in budget deficits. These results are in sharp contrast with some of the earlier studies such as Evans (1987). In addition, our results also show statistically significant evidence of a strong form of the Fisher hypothesis in Japan.