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Do the Roles of Financial Assets on the Personal Consumption Expenditure Differ in the Financial Crisis and Covid-19 pandemic? Evidence from Taiwan

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Note: I would like to attend in-person

Abstract

1. Background/ Objectives and Goals

Since 2000, there are two important global events (the 2007-2009 financial crisis and the Covid-19 pandemic) in the world. Liking other countries in the world, the economy of Taiwan is also affected by these two events. For example, the private final consumption expenditure declines during these two periods. The quarter change rate in the private final consumption expenditure, compared with the same quarter of last year, ranges from -0.84% to -4.17% over the period from 2008Q3 to 2009Q, and it ranges from -1.55% to -6.63% for the period of 2020Q1-2020Q4. What are the driving forces behind the private final consumption expenditure decline?

The price patterns for financial assets (stock market and housing market) are strange. The direct for the prices of financial assets is totally different in the Financial Crisis and Covid-19 pandemic. During 2008Q3-2009Q2, the Taiwan Capitalization Weighted Stock Index (TAIEX) decreases largely, and the quarterly decrease rate ranges from 28.56% to 64.31%. In 2009Q1, the quarterly decrease rate of the Sinyi housing price index is about 4.90%. However, during the period of 2020Q1-2020Q4, the quarterly change rate is positive for the stock index and housing index.

In the exiting literature which relates to the wealth effect (Lettau and Ludvigson, 2001) and liquidity constraint channel (Lustig and van Nieuwerburg, 2005), the financial assets are important driving force for the private final consumption expenditure. Understanding the impacts of financial assets on the private final consumption expenditure is important for the Taiwanese government. The purpose of this paper is to explore: (i) whether the financial assets can affect the private final consumption expenditure; (ii) whether the magnitude for the influence of financial asset on the consumption expenditure differs between stock market and

housing markets, and (iii) whether the volatility and skewness for the private final consumption expenditure differ in the 2007-2009 financial crisis and the Covid-19 pandemic.

2. The Empirical Method

The estimation accuracy for the impact of financial assets on the final consumption expenditure relies highly on the empirical specification, including the non-asymmetric density and time-series dynamics. The normal distribution and constant variance are the most employed assumptions in the empirical analysis. According to the above introduction, the time-series path of the private final consumption expenditure changes and experiences large increase and decrease. For the private final consumption expenditure, the conditional volatility changes over time and the conditional distribution of the private final consumption expenditure is skewed.

This paper employs a AR-GARCH model with a skewed-t distribution of Fernandez and Steel (1998) to capture the time-series dynamics of the private final consumption expenditure, and allows financial assets to influence the volatility and skewness of the private financial consumption expenditure. It is important to emphasize that two channels are employed to examine the impact of financial assets on the private final consumption expenditure.

3. Expected Results/ Conclusion/ Contribution

The sample period is from 2001Q1 to 2022Q4. The private final consumption expenditure, housing index, and stock index are collected from the Directorate-General of Budget, Accounting and Statistics, the Sinyi Center for Real Estate, and Taiwan Stock Exchange, respectively. There interesting findings are observed. First, financial assets do not have significant impacts on the volatility of the final consumption expenditure, but they have positive and significant impacts on the final consumption expenditure. The marginal effect of

housing market on the skewness of the private final consumption expenditure is stronger than that of the stock market. Second, the variance of the private final consumption expenditure varies very often, and the variance is extremely high during the Financial Crisis and Covid-19 pandemic. Third, the conditional distribution of the private final consumption expenditure is asymmetric, and it changes between right-skewed and left-skewed very often. These findings have important policy implications.

4. **References**

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5. **Keywords**

private final consumption expenditure; housing market; stock market; covid-19 pandemic; financial crisis