

# Changes in Habit Formation in Consumption and Implications

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The post-crisis rate of growth in household consumption has shown movements different from those during the pre-crisis period. The rate has fluctuated within a narrower range but more frequently than before, and its average has almost halved. This paper uses the concept of habit formation in consumption to analyze what has caused these changes in household consumption, and examines the economic effects of changes in habit formation.

In the household utility function, habit formation in consumption reflects how previous consumption affects household utility. In other words, habit formation is a parameter connecting household utility to previous consumption in the household utility function, and is closely related with the persistence of consumption. Empirically, habit formation in consumption can be estimated by using time series to calculate the sum of autoregressive coefficients of the consumption growth rate. With other factors remaining unchanged, weaker habit formation in consumption (i.e. a smaller impact of previous consumption) is associated with greater fluctuations of the consumption growth rate as well as a lower average rate. A similar pattern has been witnessed since the crisis. The estimate of Korea's habit formation in consumption generally exceeded 0.5 from 2001 to 2007, but the figure declined to below zero after the crisis, from 2010 to 2016. This decline in the estimate seems to have resulted from the weakened relationship between income and consumption, and also from the increased debt burden following the buildup of household debt since the crisis.

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Next, this paper uses a small open economy DSGE model to examine changes in impulse responses to a weakening of habit formation. In the event of internal or external shocks, the responses of the consumption and GDP growth rates are greater in the initial stage, and the subsequent disappearing of such responses is faster, in economies with weak habit formation than in those with strong habit formation. This suggests that a series of various shocks may lead to huge economic fluctuations in economies with weak habit formation.

Overall, unexpected economic shocks may cause rapid changes in economic variables in a situation like the recent period when there is weak habit formation and the economy shows a modest recovery. It is therefore all the more important to monitor internal and external shocks, and work to stabilize the economy when economic shocks are expected to have excessive spillover effects. Furthermore, in order to strengthen the domestic demand base through consumption, it will be necessary to not only increase income but also promote its stability and gradually reduce the household debt burden.

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III. Estimation of habit formation and factors causing it to weaken

IV. Habit formation and economic fluctuations

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