Abstract

The purpose of this study is twofold. One is to reorganize the theoretical structure of the economic effect of issuing local currency and critically review previous studies. The other is to add two empirical studies on the economic effects of local currency to the previous studies. The first empirical study estimates the correlation between the payments in local currency and the total sales at small business stores by using survey data targeting small business stores. The second empirical study uses credit card payment data to estimate whether the usage restrictions imposed on the disaster relief funds (paid in May 2020 in Korea) have an effect on consumption conversion from large stores to small businesses.

The theoretical review highlights the following points.

First, local currency is one of the means of payment such as credit card and cash, and there is a substitution effect between payment methods, where the increased use of local currency results in a decrease in the use of other payment methods.

Second, the substitution effect between payment methods is more likely to be manifested when the amount of local currency used is very small compared to the existing consumption amount in small business stores. Therefore, in order for the use of local currency to substantially contribute to the increase in sales of small business stores, the amount of local currency usage must be more than a certain amount compared to the existing consumption in small business stores.

Third, when the use of local currency is not associated with an increase in consumers' income, it is natural that the additional consumption effect of using local currency cannot be seen at the national level. The use of local currency can be associated with the increased consumers' income

when consumers get a discount for the general issuance of local currency, or when they receive government transfer payments associated with the policy issuance of local currency. If an increase in sales of small business stores was derived through the increased consumers' income, which is associated with the local currency issuances, then the sales growth is the effect of government transfers, not the effect of using local currency. To separate the net effect of local currency usage from the total effect of the policy issuance of local currency, it is necessary to control the income effect of government transfer payments from the total effect. The second empirical analysis in this study is an effort made in this direction.

Fourth, the main channels that the use of local currency can contribute to the sales growth of small business stores are the inter-store consumption conversion path from large stores to small business stores and the interregional consumption conversion path where offshore consumption is converted into consumption in the region. Therefore, the analysis of the economic effects of local currency needs to be focused on estimating whether these two pathways exist and to what extent they exist.

Fifth, with respect to the interregional consumption conversion path, it is argued that, when almost all local governments issue their own local currencies, the effect of suppressing offshore consumption outflow due to the local currency issuance is offset by a decrease in consumption inflow from outside, resulting in zero sum. If the inter-regional consumption flow structure prior to the introduction of local currency had been balanced, this argument could make sense. However, before the introduction of local currency, if the region with severe consumption outflow and the region with large consumption inflow could be divided, the introduction of local currency can have a positive effect on economic revitalization in the region with severe consumption outflow.

The results of the empirical analyses are summarized as follows.

The first empirical analysis utilizes the entity fixed effect model and the time fixed effect model. While there are many cases where the estimates of the former model are not statistically significant, the estimates of the latter model are generally derived to be statistically significant.

Stores with a KRW 1,000,000 higher payment in local currency, including general issuance and policy issuance, have higher total sales by KRW 395,000 and KRW 548,000, depending on the period of analysis, compared to other stores. When considering only the payment amount in local currency of general issuance, the difference in total sales is around KRW 480,000. And when considering only the payment in local currency issued by policy, the difference in total sales between stores is KRW 548,000 and KRW 1,017,000, depending on the period to be analyzed.

These results imply that if the amount of payment is the same, the payment amount in local currency of policy issuance is associated with the total sales amount, which is twice as large as the total sale amount associated with the payment amount of local currency of general issuance. However, it is a serious misinterpretation to use the results to argue that the policy issuance of local currency is not effective because it utilizes 10 times more budget than general issuance general issuance but has only twice the effect on increasing the total sales of small business stores. It should be reminded that the budget associated with the policy issuance of local currency is the budget associated with the welfare payment, and thus would have been spent even if local currency was not issued.

Comparing the estimation results presented in previous studies with the estimation results of this study is difficult due to differences in the estimation methods used. Overall, however, the size of the effects, estimated in this study, of local currency payments on the total sales of small business stores is lower than that of previous studies. This reflects the reverse relation between the total sales, which had plunged in the fourth quarter of 2020, and the amount of local currency issuances, which had increased continuously.

The analysis using credit card payment data focuses on the fact that disaster relief funds are no different from the policy issuance of local currency in terms of imposing regional restrictions and restrictions on where to use them. In order to control the income effect of government transfer payments, the effect of disaster relief funds (local currency policy issuance) is estimated by using the ratio of sales between stores, where the funds can and cannot be used, as a dependent variable. If the restrictions on where to use the relief funds are effective in converting consumptions from large stores to small business stores, then the portion of sales of the stores, where the relief funds can be used, will increase at the period of disaster relief funds. The estimation results show statistically significantly that the local currency characteristics of disaster relief funds, which limit the use to small business stores, induced consumption conversion from large stores to small business stores. It is estimated that the proportion of sales during the period of disaster relief funds at the stores where disaster relief funds can be used is 1.4%p ~ 1.7%p higher than when disaster relief funds are not used (before and after the period of disaster relief funds).

The effect of consumption conversion between stores differs depending on the type of business. In the case of restaurant and adult entertainment businesses, the proportion of sales during the period of relief funds at the stores available for relief funds is about 1.4%p to 3.2%p higher than when disaster relief funds were not used. Disaster relief funds had a large effect on consumption conversion between stores in restaurant and entertainment, wholesale and retail, clothing and miscellaneous goods, and beauty businesses, while the effect was relatively small in the medical, home appliance and furniture businesses, and automobile-related businesses.

Keyword Local Currency, Economic Effect, Local Gift Certificates, Consumption Conversion between Stores