

Sharing Economy in Japan and the United States

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Abstract

The world is replete with underutilized assets and resources, which have motivated firms to create new and more efficient markets by exploiting digital platforms. The trend exhibits a fast growth of sharing economy in service industries across the globe. Additionally, the underutilized assets also motivate technology firms to aggressively invest in enabling technologies. For example, the ultimate goal of Google's driverless car project reportedly is to eventually rid the need for households to own cars by using rental services. That is, the sharing economy not only can increase the efficiency of underutilized assets but can also accelerate technological progress in the economy. Furthermore, unlike their traditional counterparts, sharing-economy companies have a much higher ratio of intangible assets. A prominent example is Airbnb, where the company has only 600 employees but the number of listed properties has surpassed that of the world's largest hotel chain.

In this study, using the firm-level data from Japan and the U.S. during the period of 2002 to 2015, we examine the impacts of the sharing economy on hotel and transportation industries in both the U.S. and Japan. There are several key findings from this research: First, firms incorporating and adopting sharing technology have a higher degree of organizational capital intensity and have accumulated a higher stock of organizational capital. Second, the creative destruction of the sharing technology have been shown on the estimated depreciation rates of organizational capital between the two groups. In general, the higher depreciation rate of organizational capital for existing incumbents implies that the value of their organizational capital are losing faster. Third, we show that the sharing technology shock caused a negative impact on the stock prices of existing incumbents but a positive impact on their counterparts adopting the new technology. Last but not least, by using the Uber case, we analyze welfare impacts of the new sharing technology and propose a new way to indirectly measure it. The analysis of the potential welfare impacts suggests the import measurement issues of the price index of the transportation service to the GDP growth and productivity growth.

¹ The views expressed are those of the author and do not necessarily reflect those of the U.S. Bureau of Economic Analysis.