Labor and Capital Profitability of Japanese Agriculture: Evidence from Farm-level Data

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Summary

The profitability of Japanese agriculture is estimated by sector using farm-level data. We focus on family farms (excluding organized farms) in six main agricultural sectors, including paddy, upland crops, field vegetables, greenhouse vegetables, fruit, and dairy. Regarding labor profitability, the upland crop sector shows the highest profitability, followed by the dairy, greenhouse vegetable, fruit, field vegetable, and paddy sectors. Average annual growth rates between 2004 and 2016 are 6 % for dairy and 1–2 % for other sectors. These growth rates are categorized into share and growth effects. For paddy, upland, and field vegetable sectors, the share effect accounts for most of the observed growth, indicating the importance of land transfer from small-scale to large-scale farms. The opposite is evident for dairy, greenhouse vegetable, and fruit sectors, where the increase of labor profitability of each individual farm (the growth effect) is the main driver. The growth rates of capital profitability are as high as 5–13%, and particularly rapid growth is observed after 2010. This growth mainly appears to be driven by the growth effect rather than the share effect, implying that capital profitability is increasing in all farm size classes in all sectors.

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