## The Effects of Employee Stock Ownership on Productivity, Profitability, Wages, and Tobin's Q: Evidence from Publicly Traded Firms in Japan\*

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## **Abstract**

This paper provides novel evidence on the effects of employee stock ownership, using new panel data on Japanese Employee Stock Ownership Plans (JESOPs) for a highly representative sample of publicly-traded firms in Japan (covering more than 75 percent of all firms listed on Tokyo Stock Exchange) over 1989-2013. Unlike most prior studies, we focus on the effects of changes in varying attributes of existing employee stock ownership—the effects on the intensive margin. Our fixed effect estimates show that an increase in the strength of the existing JESOP measured by stake per employee results in statistically significant productivity gains. Furthermore, such productivity gains are found to lead to profitability gains since wage gains from JESOPs are statistically significant yet rather modest. Our analysis of Tobin's Q suggests that the market tends to view such gains from JESOPs as permanent. We further find that increasing stake of the existing core participants is more effective in boosting gains from JESOPs than bringing in more employees into the trust. Reassuringly our key results are found to be robust to the use of instrumental variables to account for possible endogeneity of JESOPs. Finally we explore possible interplays between JESOPs and firm characteristics such as ownership structure and firm size/age. First, the positive effects on productivity, profitability, wages and Tobin's Q are found to become larger as the proportion of powerful institutional investors and foreign investors rises, implying that the growing importance of such powerful outside shareholders may be reducing the adverse managerial entrenchment effect of JESOPs. Second, productivity gains from JESOPs are found to be more limited for smaller and younger firms. We interpret the finding as evidence in favor of the institutional complementarity view that JESOPs are an integral part of the Japanese High Performance Work System (HPWS)--a complementary cluster of human resource management practices which are more pervasive among larger and older firms in Japan.