Joint Borrowing Limit Game

Hiromasa Takahashi[a,*], Toru Takemoto[b,†], Akihiro Suzuki[c,‡]

[a]*Faculty of International Studies, Hiroshima City University, Japan*

[b]*Faculty of Economics, Tezukayama University, Japan*

[c]*Faculty of Literature and Social Sciences, Yamagata University, Japan*

Abstract

This study models joint debts as the joint borrowing limit game and analyzes its efficiency or condition under which an efficient resource allocation is achieved. Although there are few examples of an explicit joint debt or an implicit debt guarantee, the joint borrowing limit game has a broad range of applications because the model can be applied to the case where creditors and debtors expect debt guarantee of someone unilaterally even without explicit contract of joint debt. For example, we can apply them to the Eurosystem leading to the European debt crisis. Authors argue that, for an efficient resource allocation, not too large economic disparity between players, not too many players, observability of each player's debt outstanding are necessary.

[*] *E-mail address:* htaka@intl.hiroshima-cu.ac.jp.

[†] *E-mail address:* takemoto@tezukayama-u.ac.jp.

[‡] *E-mail address:* asuzuki@human.kj.yamagata-u.ac.jp.