## THE BEHAVIOR OF EXTERNAL DEBT IN ASIAN COUNTRIES: EVIDENCE BASED ON PANEL UNIT ROOT TESTS

Evan Lau<sup>1</sup>, Ahmad Zubaidi Baharumshah<sup>2</sup>, Siew-Voon Soon<sup>3</sup>

<sup>1</sup>Department of Economics, Faculty of Economics and Business, Universiti Malaysia Sarawak (UNIMAS), 94300 Kota Samarahan, Sarawak, Malaysia

<sup>2,3</sup>Department of Economics, Faculty of Economics and Management, Universiti Putra

Malaysia, 43400 UPM Serdang, Selangor Darul Ehsan, Malaysia

*E-mails*: <sup>1</sup>*lphevan@feb.unimas.my*; <sup>2</sup>*baharumshah@yahoo.com (corresponding author)*; <sup>3</sup>*sv soon2001@yahoo.com* 

Received 21 October 2011; accepted 06 August 2012

**Abstract.** This article investigates the mean-reverting behavior of the external debt ratio based on a clustered of 19 Asian countries from 1981 to 2010. For this purpose, we use a government's intertemporal budget constraint (GIBC) model popularized by Hamilton and Flavin (1986). Our conclusions were drawn from panel data based tests, including the newly developed test that accounts for both cross-sectional dependency and structural breaks. Two major findings are noteworthy; first majority debt ratios in the Asian countries are affected by structural breaks. Second, we find unit root tests that do not accommodate breaks are less likely to detect mean reversion in the debt ratios. In all, our results indicate debt sustainability is a general characteristic of all the Asian countries.

**Keywords:** external debt, mean reversion, Government Intertemporal Budget Constraint (GIBC), breaks, Asian.

**Reference** to this paper should be made as follows: Lau, E.; Baharumshah, A. Z.; Soon, S.-V. 2013. The behavior of external debt in Asian countries: evidence based on panel unit root tests, *Journal of Business Economics and Management* 14(Supplement 1): S377–S394.

JEL Classification: F34, H63, C22, C51.

## Introduction

The wave of currency crises and international debt in 1990s brings about a question of how sustainable are the foreign aids for a recipient country in order to protract its economic growth<sup>1</sup>. The relevance of the sustainability of external debts has been highlighted in recent years. The external debts are said to be sustainable when a country can meet its current and future external debt service obligations in full (Thugge, Boote 1997). In other words, sustainability would require that indebtedness be kept in line with

<sup>&</sup>lt;sup>1</sup> Reinhart and Rogoff (2009) provide an excellent and comprehensive chronicle of the financial 'folly' through the eight centuries that also covers the debt crises in the developing countries. The episodes of sovereign external debt crises were narrated in detail.