



UNIVERSITY OF
MARYLAND

Department of Economics
Tydings Hall, Room 3114D
College Park, Maryland 20742-7211
301.405.3544 TEL 301.405.3542 FAX

To: Dean of Research and Graduate Studies
From: Director of Graduate Studies in Economics
Date: May 25, 2023

This is to certify that the Doctoral Examining Committee has certified that Zu Yao Hong made substantial contributions to the jointly authored work included in this dissertation.

L Stevens.

(Chairman)

Luminita STEVENS

John Shea

(Director of Graduate Studies)