UNIVERSITI PUTRA MALAYSIA

YEN SYNCHRONIZATION AND MAASTRICHT CONVERGENCE AMONG THE ASEAN-5, JAPAN AND KOREA

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By

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Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Master Science

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Abstract of the thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master Science

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July 2010

Chair: Prof. Azali Mohamed, PhD

Faculty: Economics and Management

In this thesis, the main objective is to investigate whether ASEAN-5+2 countries meet the conditions for creating an AMU with the yen as the currency unit. First, the results of BEKK-GARCH (1, 1) and the dynamic correlation coefficients show that only Singapore, Korea, and Thailand have the potential to adopt the yen as the regional currency unit. Second, the Maastricht criteria only have a significant impact on real GDP per capita growth for Japan, Korea, Singapore and the Philippines in the long term. In addition, the Maastricht criteria show that there were symmetry impacts on the growth of real GDP per capita for Japan, Korea, Singapore and the Philippines. Thus, only these four out of the seven countries (Japan, Korea, Singapore and the Philippines) appear to be potential candidates for establishing the AMU. Overall, the findings do not suggest the possibility of a formation of a full-fledged AMU by the ASEAN-5+2 countries. However, the formation of a sub-grouping of a few of the countries in the ASEAN-5+2 is more feasible, that is Japan, Singapore, and Korea. This is because these countries have higher institutional quality and fulfill the Maastricht treaty as well as being close in exchange rate regimes, and also have symmetrical economic behavior.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

YEN PENYEGERAKAN DAN PEMUSATAN MAASTRICHT ANTARA NEGARA ASEAN-5, JEPUN DAN KOREA

Oleh

KELLY WONG KAI SENG

Julai 2010

Pengerusi: Prof. Azali Mohamed, PhD

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Dalam tesis ini, tujuan utama adalah untuk menyiasat adakah ASEAN-5+2 negara dapat memenuhi syarat keperluan untuk mencipta satu AMU dengan menggunakan yen sebagai unit mata wangnya. Pertama, hasil BEKK-GARCH (1, 1) dan pekali korelasi dinamik menunjukkan bahawa hanya Singapura, Korea, dan Thailand mempunyai potensi untuk mengadopsi yen sebagai unit mata wang serantau. Kedua, kriteria Maastricht hanya menunjukkan kesan yang signifikan terhadap KDNK benar per kapita untuk Jepun, Korea, Singapura dan Filipina dalam jangka panjang. Selain itu, kriteria Maastricht menunjukkan bahawa ada kesan simetri terhadap pertumbuhan KDNK benar per kapita untuk Jepun, Korea, Singapura dan Filipina. Jadi, hanya empat dari tujuh negara ini (Jepun, Korea, Singapura dan Filipina) tampaknya sebagai calon berpotensi untuk membina AMU. Secara keseluruhan, penemuan tidak menyarankan kemungkinan pembentukan AMU penuh olehnegara-negara ASEAN-5 +2. Namun, pembentukan sub-pengelompokan beberapa negara di ASEAN-5 +2 adalah lebih layak, iaitu Jepun, Singapura, dan Korea. Hal ini kerana negara-negara tersebut mempunyai kualiti yang lebih tinggi institusi dan memenuhi perjanjian Maastricht dan juga menjadi dekat dalam rejim kadar pertukaran, dan juga memiliki perilaku ekonomi simetris.

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I certify that an Examination Committee has met on 27th July 2010 to conduct the final examination of Kelly Wong Kai Seng on his Master thesis entitled "Yen Synchronization and Maastricht Convergence among the Asean-5, Japan, and Korea" in accordance with the Universities and University Colleged Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master Science. The members of the Supervisory Committee were as follows:

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

KELLY WONG KAI SENG

Date: 27th July 2010

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LIST OF ABBREVIATIONS

ABMI	Asian Bond Market Initiative
ACU	Asian Currency Unit
ADF	Augmented Dickey Fuller
ADB	Asian Development Bank
AERM	Asian Exchange Rate Mechanism
AFTA	ASEAN Free Trade Area
AIA	ASEAN Investment Area
AIC	Akaike's Information
AMF	Asian Monetary Fund
AMS	Asian Monetary System
AMU	Asian Monetary Union
AOCA	Asian Optimum Currency Area (AOCA)
APEC	Asia-Pacific Economic Cooperation
ARDL	Auto-Regressive Distributed Lag
ASEAN	Association of Southeast Asian Nations
BEKK	Baba-Engle-Kraft-Kroner
CGE	Computable General Equilibrium
CHN	China
CMI	Chiang Mai Initiative
CPI	Consumer Price Index
DM	Deutsch Mark
DRI	Data Resources Incorporate
EA	East Asia

ECB	European Central Bank
ECSC	European Coal and Steel Community
ECT	Error Correction Term
EEC	European Economic Community
EMS	European Monetary System
EMU	European Economic and Monetary Union
ERM	Exchange Rate Mechanism
EURATOM	European Atomic Energy Community
GARCH	Generalized AutoRegressive Conditional Heteroscedasticity
GBR	Government Budget Ratio
GCC	Gulf Cooperation Council
GDR	Government / Public Debt Ratio
GDP	Gross Domestic Product
GLS	General Least Squared
HDI	Human Development Index
HP	Hodrick-Prescott filter approach
IDN	Indonesia
IDR	Indonesia Rupiah
IFS	International Financial Statistics
IMF	International Monetary Fund
INFL	Inflation Rates
INT	Interest Rates
JPN	Japan
JPY	Japanese Yen

KOR	Korea
KRW	Korean Won
LM	Lagrange Multiplier statistics
LSDV	Least Squared Dummy Variables
MCC	Maastricht Convergence Criteria
MLY	Malaysian Ringgit
MUBS	Monetary Union between Brunei and Singapore
MYS	Malaysia
NAFTA	North Asia Free Trade Area
OCA	Optimum Currency Area
OECD	Organization for Economic Cooperation and Development
OECD.stat	Organization for Economic Cooperation and Development Statistics
OLS	Ordinary Least Squared
PHL	Philippines
PHP	Philippines Peso
RGDPC	Real Gross Domestic Product per Capita
RMU	Regional Monetary Unit
SAARC	South Asian Association for Regional Cooperation
SAGP	Stability and Growth Pact
SBC	Schwarz's Bayesian Criteria (SBC)
SGD	Singapore Dollar
SGP	Singapore
TBH	Thai Baht
THA	Thailand

UK	United Kingdom
UNDP	United Nations Development Programme
USD	United States Dollar
VAR	Vector Auto-Regressive
WDI	World Development Indicators
WTO	World Trade Organization

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