A FAVAR Analysis of the Business Cycle Co-movement in East Asia –
Implications for a currency union

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(Joint paper with H. Huh and WJ Kim)

ABSTRACT
Notwithstanding the current economic turmoil in the Euro zone, there remains an ongoing
debate as to whether a monetary or currency union will be a viable alternative to the current
exchange arrangements in East Asia. However, existing empirical studies focused on the
business cycle synchronisation in the region have not led to any consensus, casting doubt on
the possibility of forming a monetary union in the region in any foreseeable future. Using a
factor-augmented VARs (FAVAR), the paper analyzes the international comovements among
a set of key real and nominal macroeconomic variables in the selected ASEAN+5 (i.e.
ASEAN5 plus Korea, Japan and Greater China) countries. Specifically, unlike previous
research, we group different types of economic activities into eight blocks based upon the
relevancy (global - oil, world GDP; ASEAN+5 - GDP, real exchange rate, price inflation,
money supply, real exports and real imports) and extract five common factors using the
principal components derived from each of the eight blocks (five factors: oil, world GDP,
local GDP, real exchange rate and nominal). By imposing a short-run block lower-triangular
restrictions, as proposed by Stock and Watson (2005) and Bagliano and Morana (2009), the
paper investigates how global and local shocks affect the macroeconomic variables of
ASEAN+5 countries. Our results show that while the degree of relative importance of global
and local shocks on the economic variables in the ASEAN+5 countries is country specific,
the nominal factors are a significant driving force of these variables in the region. This
implies that a majority of these countries in the region may benefit from forming a loose
monetary union to begin with. Through coordinated or centralised monetary policy responses,
the region can collectively respond to real shocks from regional and global economies.

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