

GROWTH SLOWDOWN AND THE MIDDLE INCOME TRAP IN ASIA

EE 462 Development Macroeconomics
Semester 1/2020

Reference: Riedel, J. (2019). Growth slowdown and the middle income trap in Asia. *Thailand and the World Economy*, 37(1), 1-16.

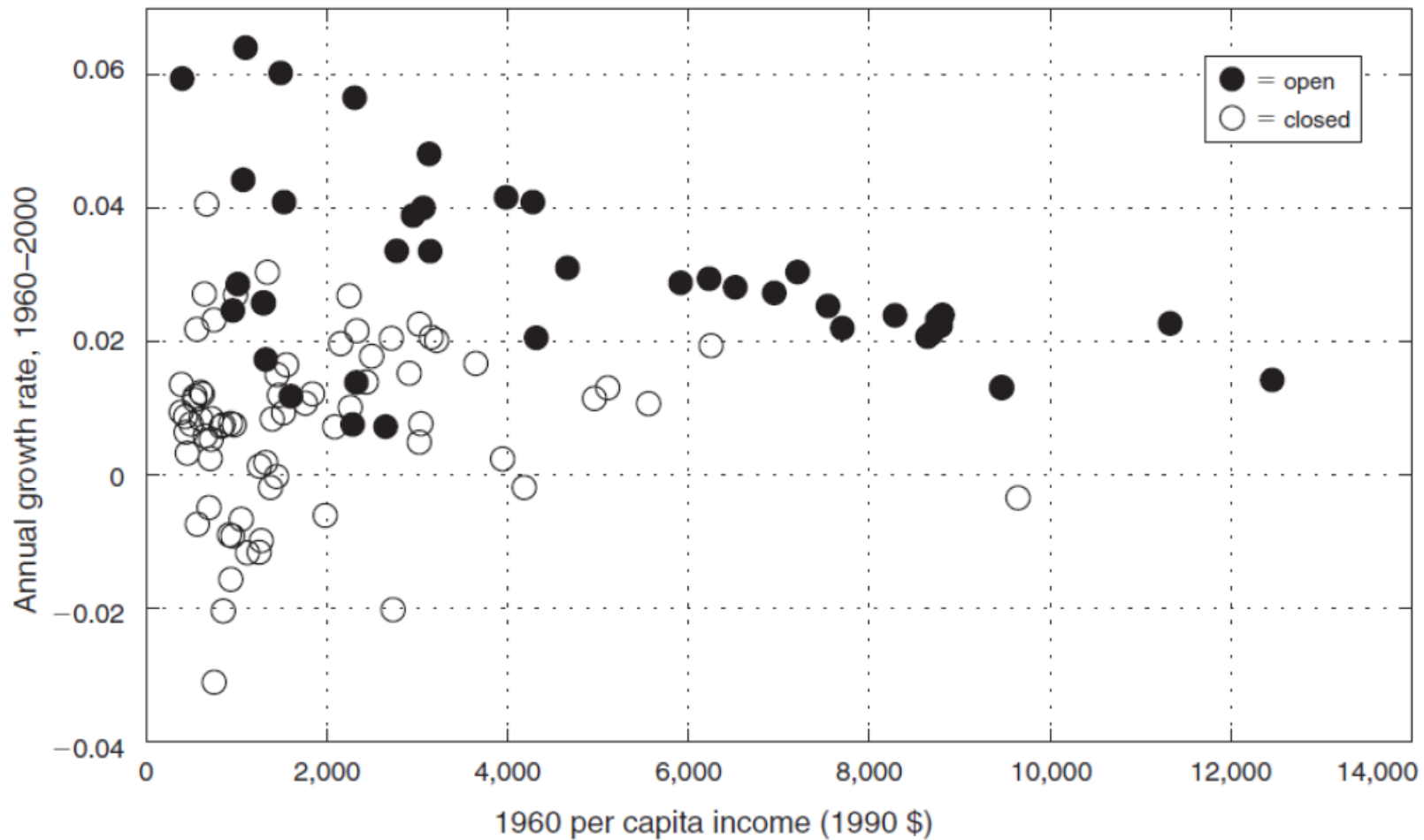
Intro

- A middle-income trap is associated with a slowdown of long-term growth somewhere in the middle-income range.
- But what are the causes of this growth slowdown?
 - Policies that inhibit growth or other policies govt fail to take
 - External constraints that prevented authorities from taking necessary measures to restore growth to its long-run potential
- This paper proposes a hypothesis as to why middle-income countries may be particularly vulnerable to a middle-income trap.

The economies of middle-income growth slowdown

- Solow growth model – convergence occurs due to diminishing returns to capital-deepening.
- But the Solow model growth slowdown (i.e. convergence) is not confined to countries in the middle income range.
- Usually, the steady state is reached at a high-income level.
- Examples: S.Korea & Taiwan vs. Malaysia & Thailand

Figure 1: Convergence in 112 Open and Closed Economies

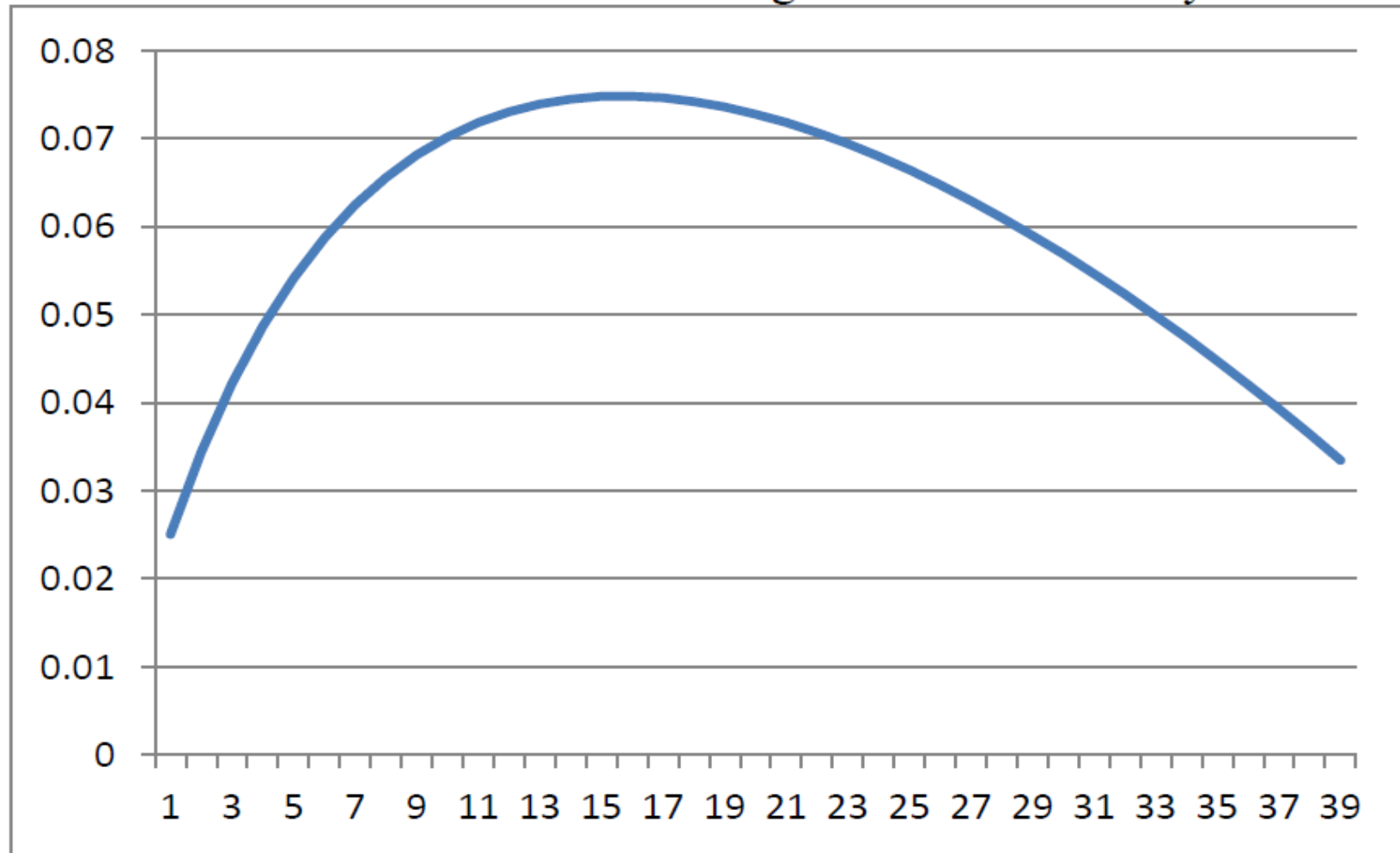


Source: Lucas, 2009 (p. 4)

3 elements of growth process in “successful” developing countries

- Openness
- Technology catch up
- Labor reallocation

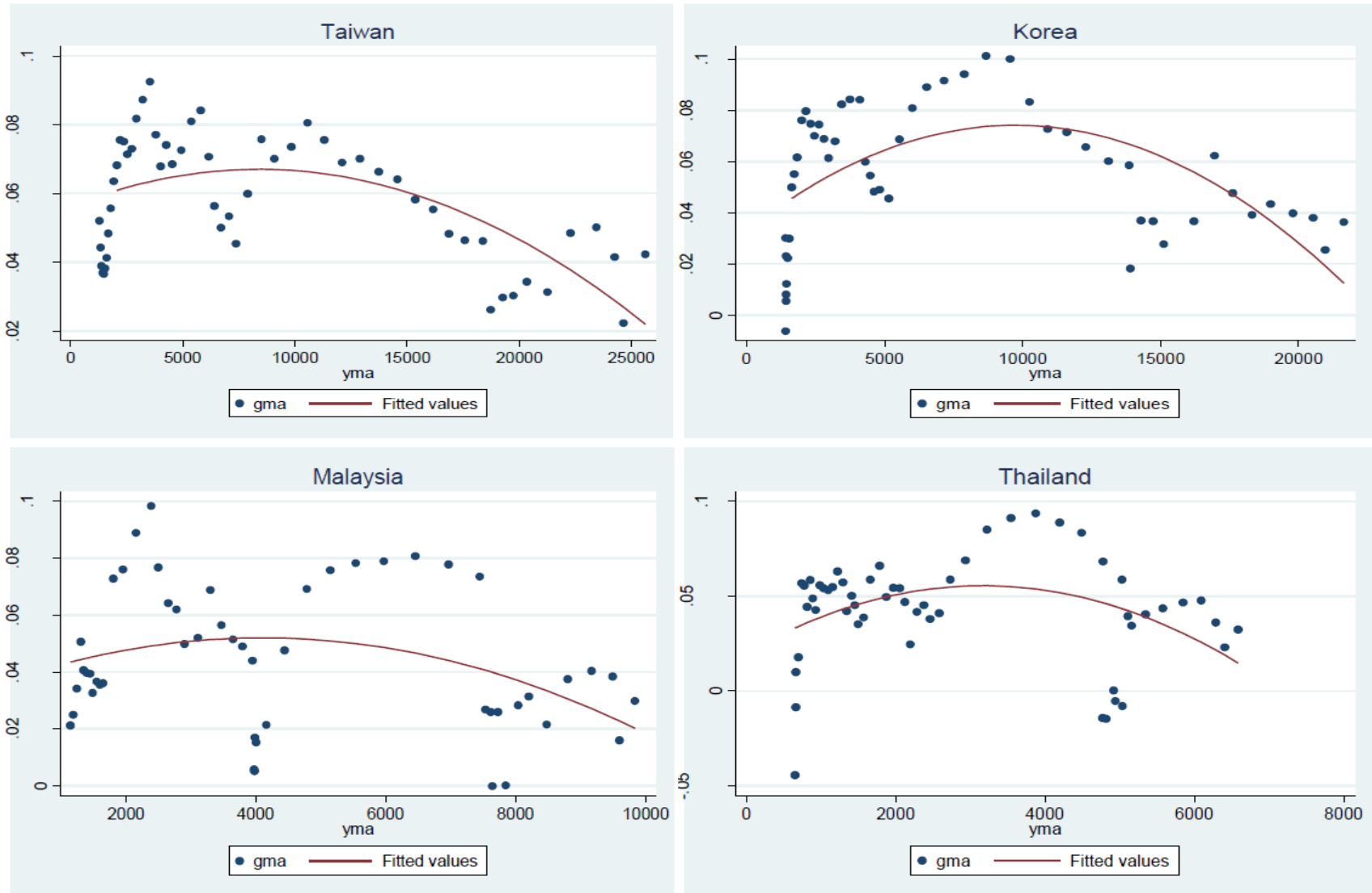
Figure 2: Simulated Growth Pattern with Technology Catch Up and Labor Reallocation from Agriculture to Industry



Source: Author's calculations.

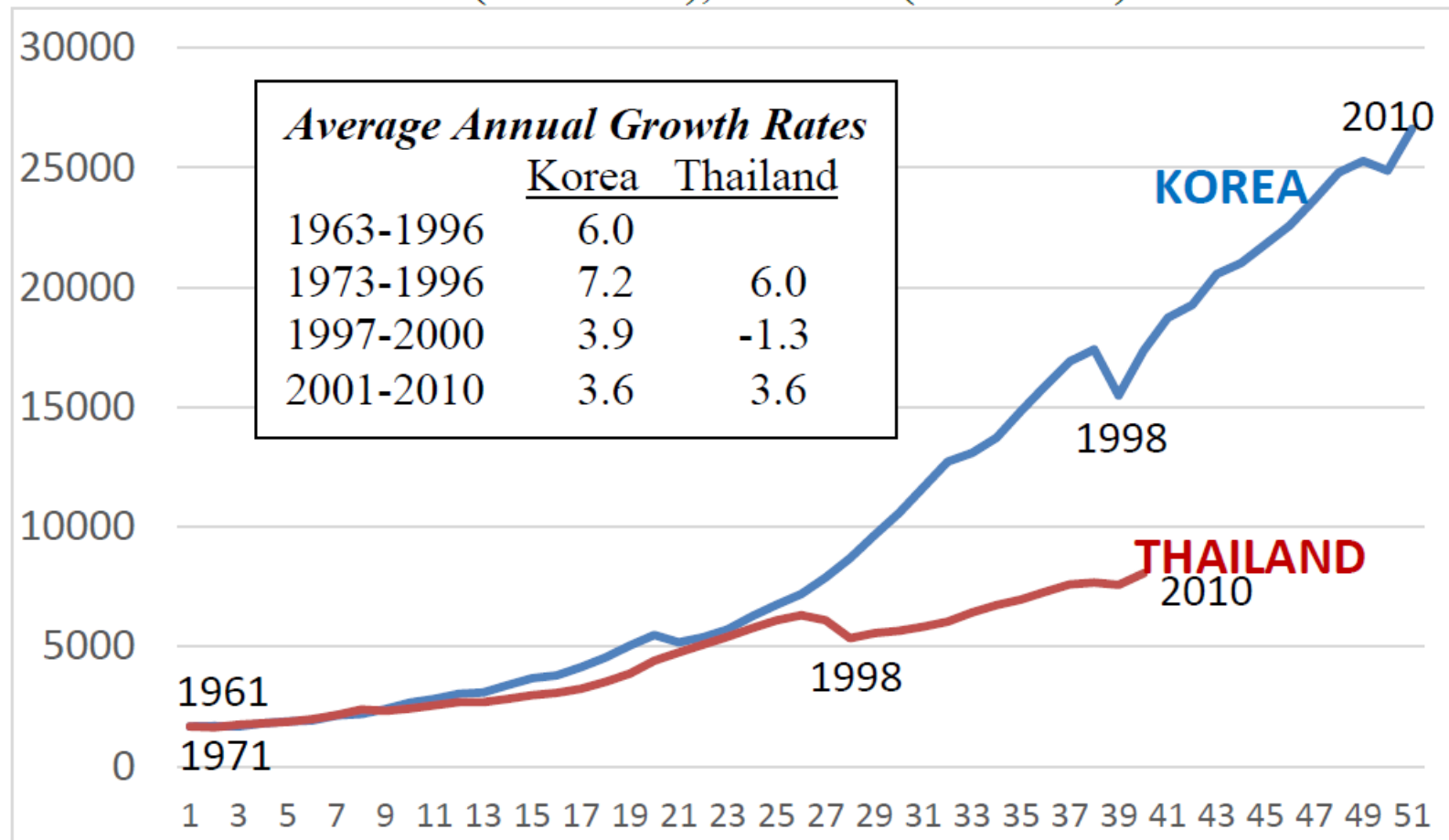
The empirics: Growth slowdown

Figure 3: Five-year moving averages of actual and estimated real per capita income growth rates (gma) plotted against the level of real per capita income (yma): 1955-2011



The empirics: Timing matters

Figure 4: Per capita income in constant 2005 PPP U.S. dollars:
Korea (1961-2010), Thailand (1971-2010)



Source: Penn World Tables

MIT and Dynamics of Comparative Advantage

- Heckscher-Ohlin trade theory
- Revealed comparative advantages:

$$RCA_{i,j,t} = \alpha_{j,t} + \beta_{j,t} \cdot k_i + \varepsilon_{i,j,t},$$

Figure 6

Step one

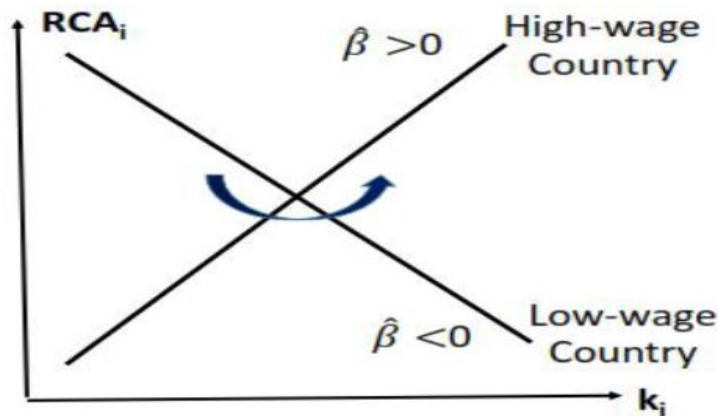


Figure 7

Step Two

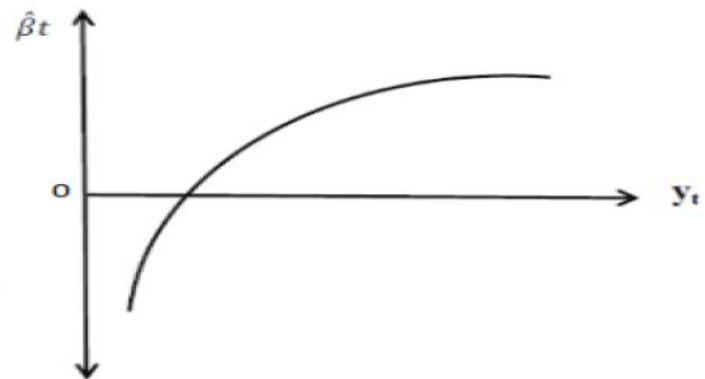
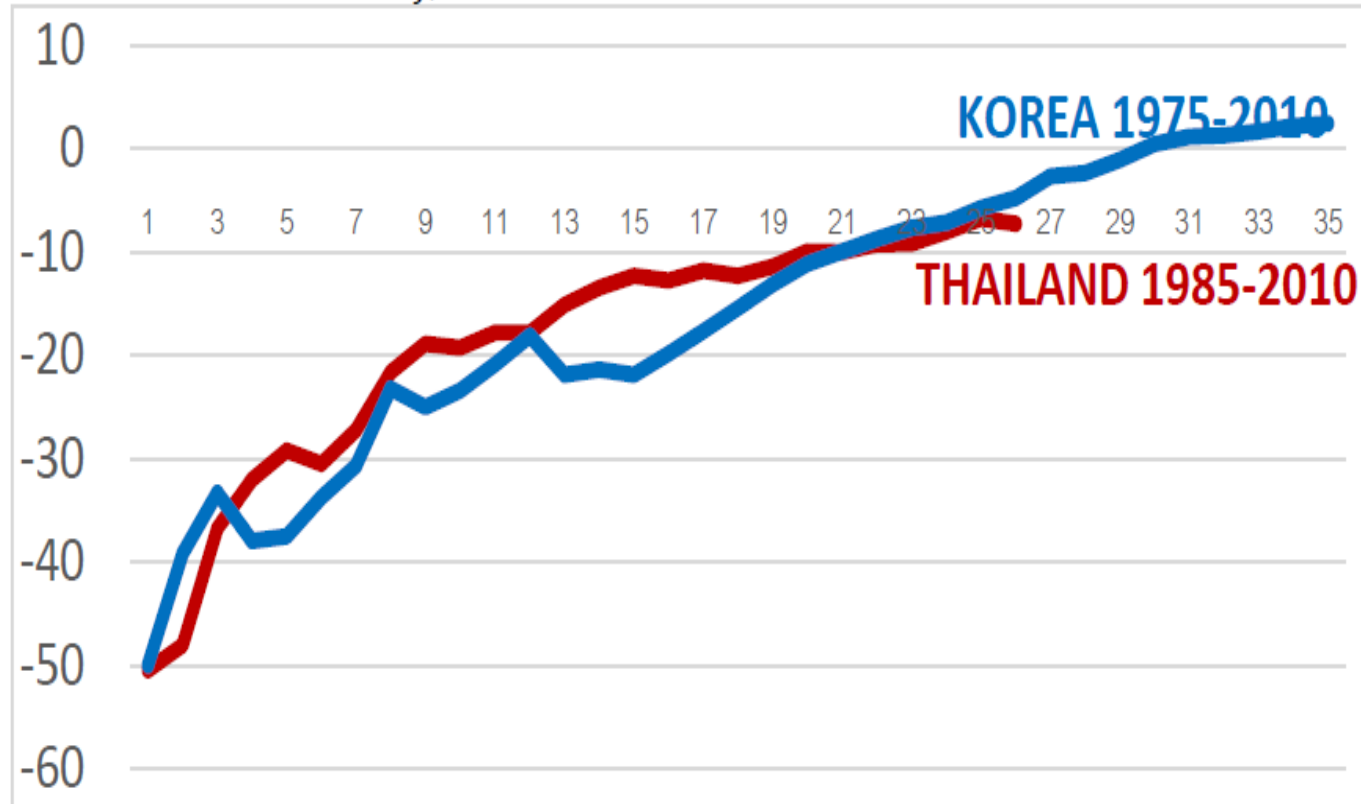


Figure 8: Estimates of $\hat{\beta}_{j,t}$ for manufactured exports of Korea and Thailand*

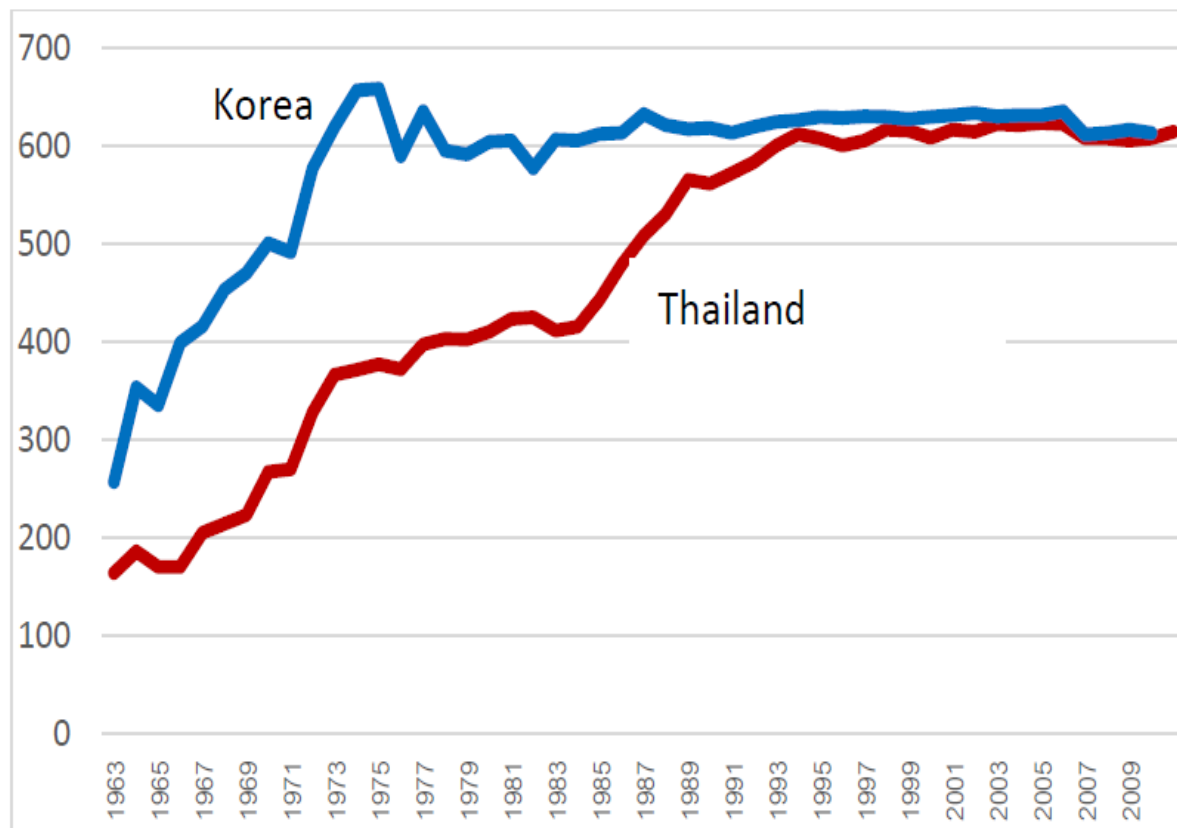


Note:* Regression analysis of the parametric relation between $\hat{\beta}$ and per capita income in Thailand and Korea is given in Appendix A.

Source: World Bank, WITS, U.N COMTRADE data.

Export Diversification

Figure 9: Number of manufactured products exported (at the 5-digit SITC level) in Korea and Thailand: 1963-2010



Source: WITS COMTRADE data. Author's calculation

Possible causes of “trap”

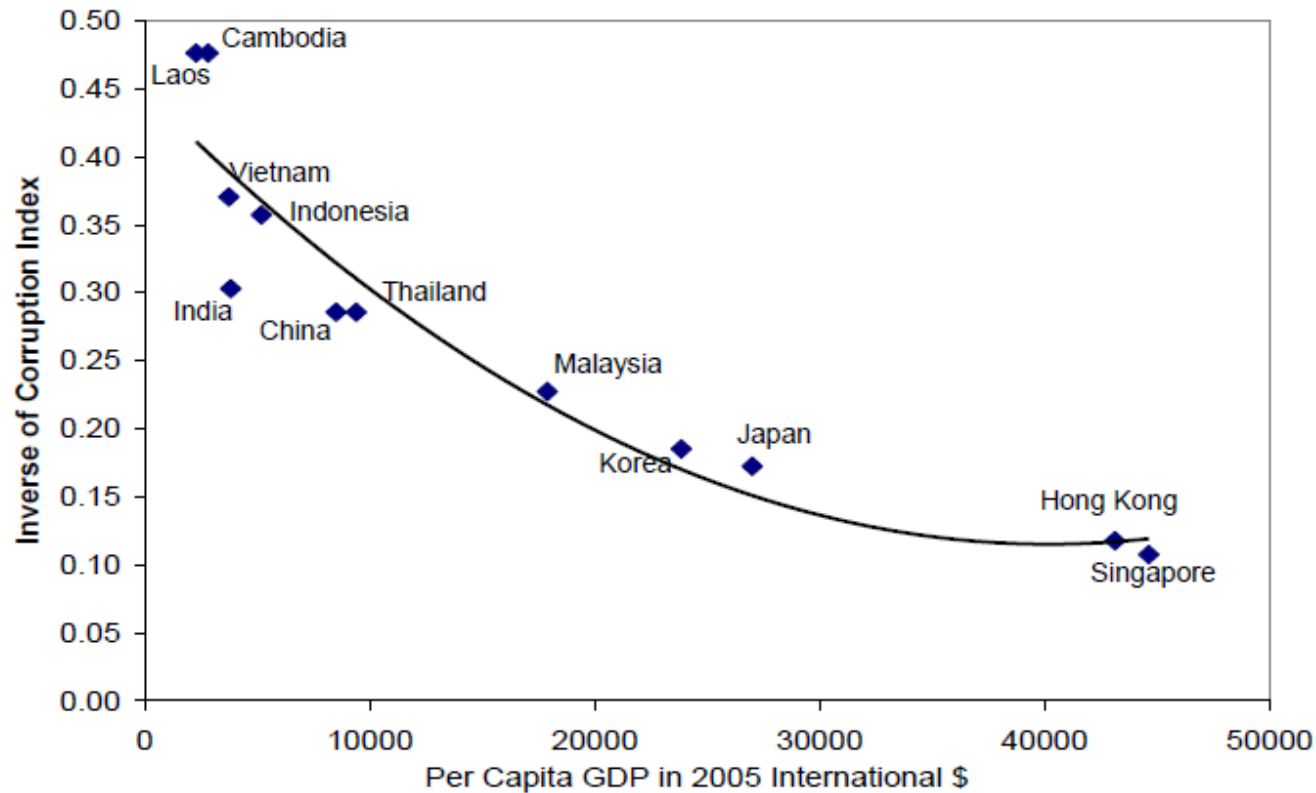
- Trapped by policies
- Trapped by politics – rent seeking behavior

$$R = R(Y(P), P) \quad R'_Y > 0 \quad Y'_P > 0 \quad R'_P < 0$$

∴ a change in policy (dR/dP) is ambiguous:

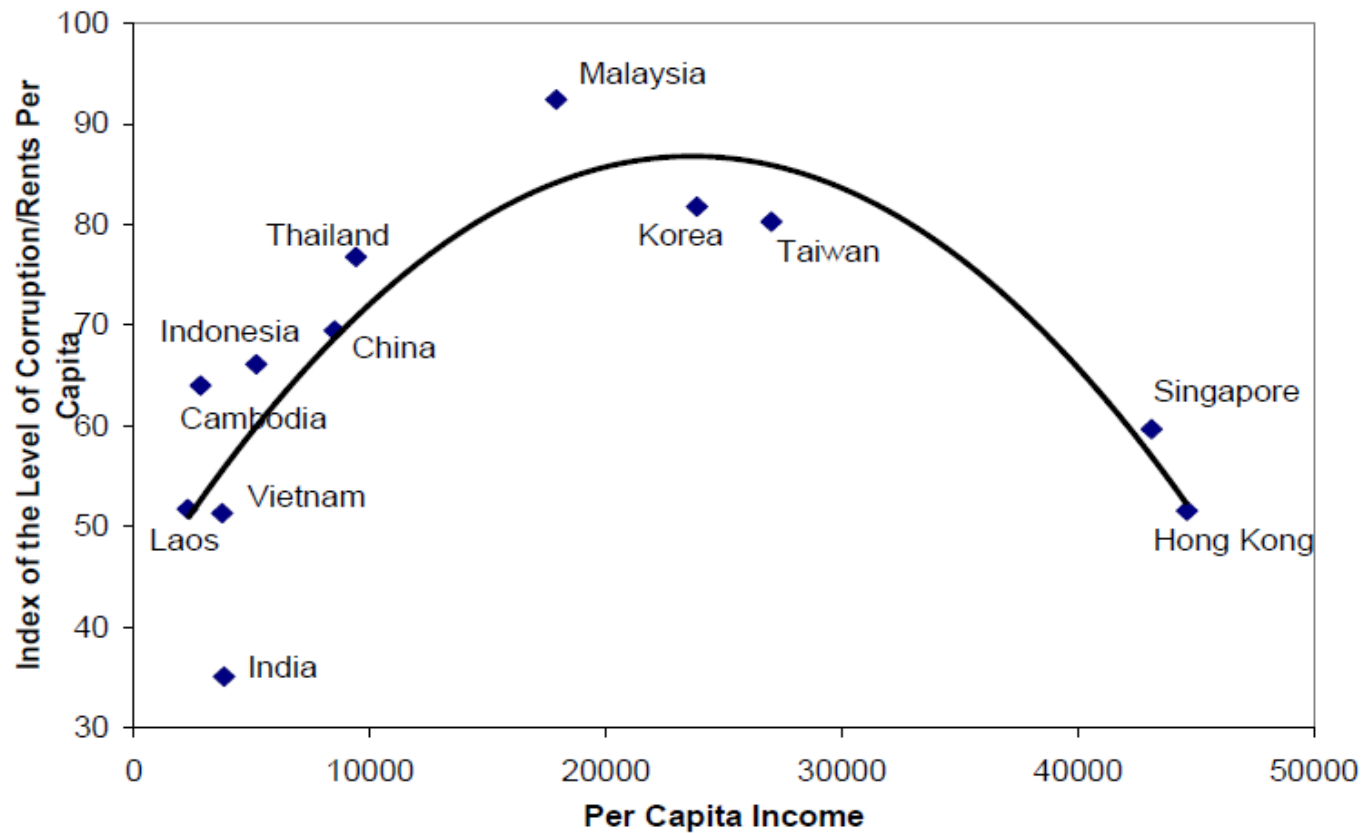
$$dR/dP = R'_Y \cdot Y'_P + R'_P.$$

Figure 11: The relation between corruption and per capita income



Source: Transparency International, 2011 and Penn World Tables

Figure 12: The Level of Corruption/Rent-Seeking and Per Capita Income*



Note: * The level is $((1/CPI^2) \times \text{real per capita income})/100$.

Source: Transparency International, 2011 and Penn World Tables.