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Growth Slowdowns

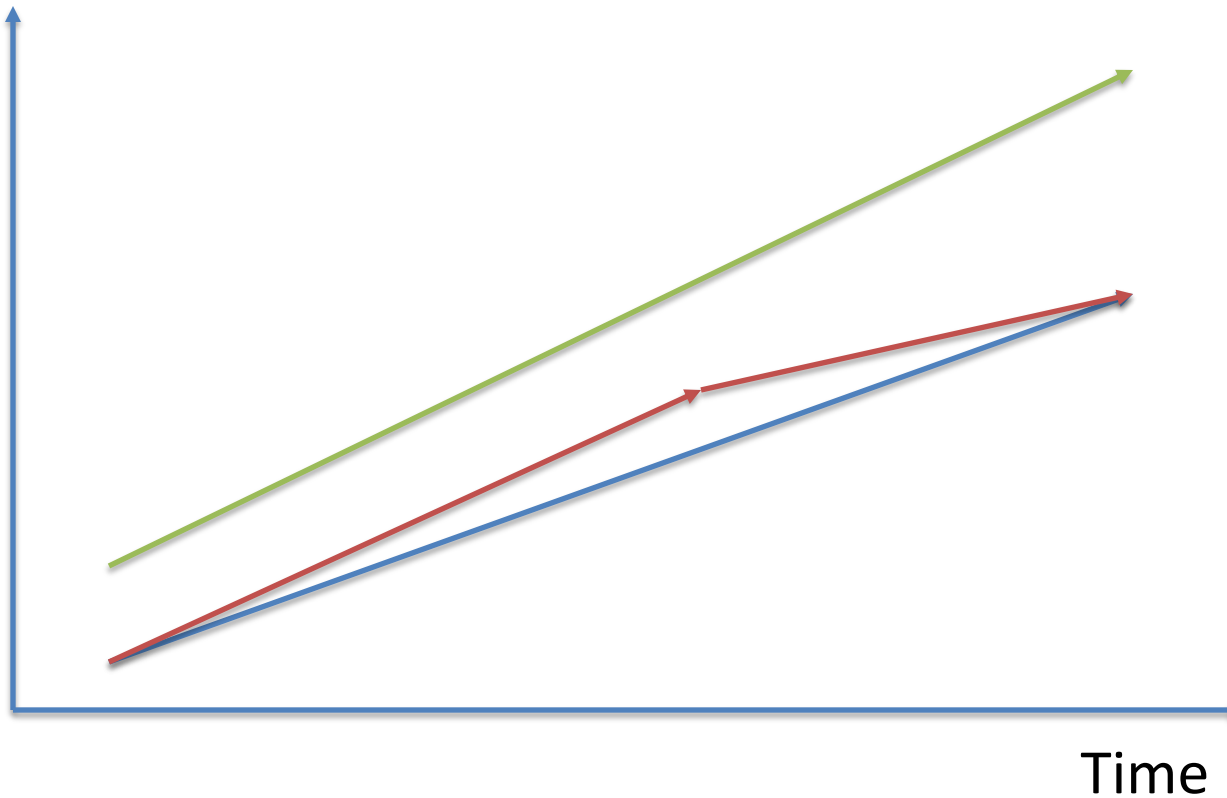
Panel remarks at the Bank Negara
Malaysia Economic Research Workshop

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MIT vs Growth slowdown

GDP per capita



Growth regressions

- **Green** vs. **Blue** lines. Standard growth regressions. “I Just Ran Four Million Regressions” Sala-i-Martin, AER 1997.
 - Catch-up, schooling (human capital, esp. women), institutions (rule of law), openness,
- **Red** line vs. **Green** or **Blue** lines. Growth slowdowns.
 - “Growth Slowdowns Redux: New Evidence on the Middle-Income Trap”, Eichengreen, Park, Shin, NBER WP 18673, Jan. 2013.
 - “Growth-slowdowns and the Middle-Income Trap”, Aiyar, Duval, Puy, Wu, Zhang, IMF WP/13/71, March 2013

Defining growth slowdown

- Eichengreen, et. al.:

$$g_{t,t-n} \geq 0.035 \quad (1)$$

$$g_{t,t-n} - g_{t,t+n} \geq 0.02 \quad (2)$$

$$y_t > 10,000 \quad (3)$$

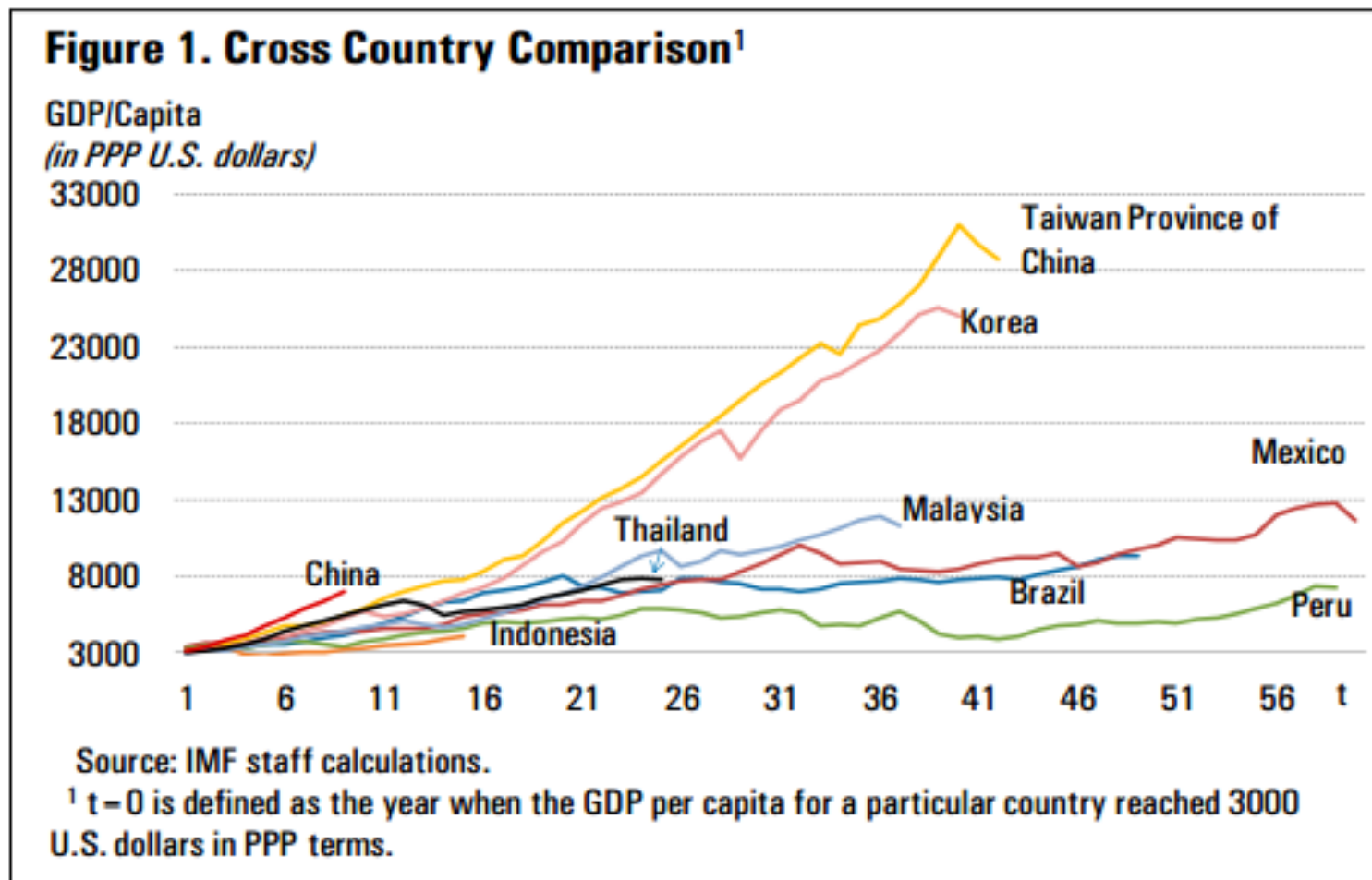
- Ayiar, et. al.: Define *res* as the residual of a regression of growth of GDP per capita on the lagged level of GDP per capita and measures of physical and human capital. A growth slowdown is defined by:

$$res_t^i - res_{t-1}^i < p(0.20) \quad (1)$$

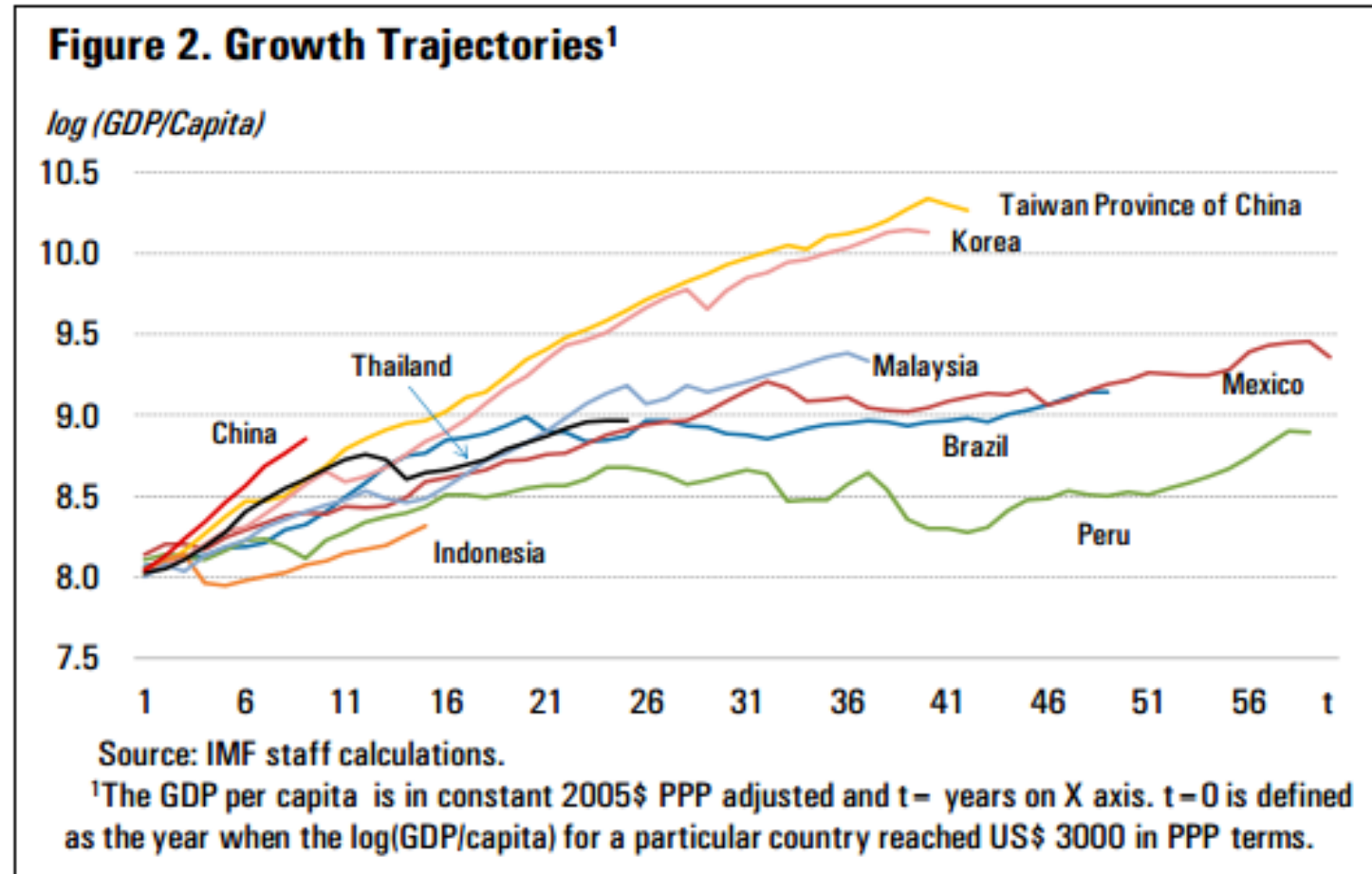
$$res_{t+1}^i - res_{t-1}^i < p(0.20) \quad (2)$$

Nb. P(.20) stands for the 20th percentile of the differences in the residuals

Source: Aiyar, et. al.



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Determinants of growth slow downs according to Aiyar et. al.

- Probit regression model. What determines the probability of experiencing a growth slow down?
 - Institutions: rule of law, small government, light regulation
 - Demography: Dependency ratio, sex ratio (men/women)
 - Macroeconomic environment: Gross capital inflows, public debt
 - Trade: Distance, regional integration

Source: Aiyar et. al.

Table 12. A "Growth Slowdown Risk" Map for Asian Middle-Income Countries

Country	Institutions	Demography	Communication	Road	Output Composition	Macroeconomic Factors	Trade
China	Orange	Green	Green	Yellow	Green	Light Green	Orange
India	Yellow	Orange	Red	Green	Yellow	Orange	Red
Indonesia	Light Green	Light Green	Yellow	Red	Orange	Green	Orange
Malaysia	Red	Yellow	Light Green	Orange	Green	Red	Yellow
Philippines	Orange	Red	Orange	Light Green	Light Green	Orange	Light Green
Thailand	Light Green	Green	Orange	Orange	Red	Green	Light Green
Vietnam	Green	Orange	Light Green	Light Green	Orange	Yellow	Green

Middle-Income Trap: Economic Myth, Political Reality



CASE STUDIES FROM MALAYSIA AND THAILAND

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Questions for debate

- Is there a relationship between the determinants of growth slow down and the determinants of 'secular stagnation' (if it actually exists?)
- Are growth slow downs structural or the results of crises? (Cerra and Saxena, AER, 2008)
- Should we be more concerned with the absolute level of income or the relative level of income? Does income inequality across nations have consequences for economic performance? (Pikety, Stiglitz)



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Thank You

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