

Role of the state in (1) middle-income trap & (2) climate disruption

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Two mega challenges

- I. Escaping the middle-income growth slowdown or “trap” (**MIT**)
- II. Curbing/adapting to climate disruption
- “Industrial policy” important for “solving” both

MIT hypothesis

- Previously fast-growing economies tend to experience a pronounced growth slow-down somewhere in middle-income range, which lasts “a long time” & keeps them in middle-income range (rather than rising to high-income) for several decades, at least

Reality of MIT? Brazil

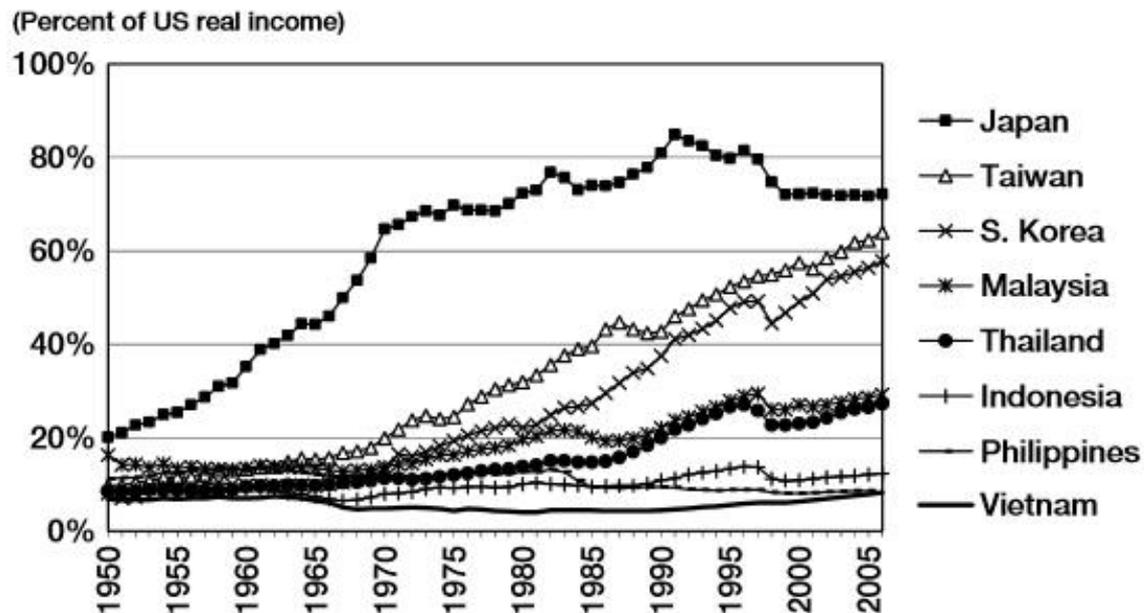
- Between 1950 & 2010, spent 7 years as “low income”, **next 53 years** as “lower middle” (LM).
- LM = PPP\$ 2,000 – \$7, 250 a year, about \$5.50 – 20 a day, in 1990 PPP\$.
- Between 1967 to 1980, grew at average of 5.2%. For next 22 years to 2002, at GDP per capita average rate of 0.

MIT in SE Asia.

- See chart

Income tiers in E & SE Asia, 1950 - 2006

Figure 2. Different Speed of Catching Up



Sources: Angus Maddison, *The World Economy: A Millennium Perspective*, OECD Development Centre, 2001; the Central Bank of the Republic of China; and IMF *International Financial Statistics* (for updating 1998-2006).

Note: Per capita real income relative to US as measured by the 1990 international Geary-Khamis dollars.

MIT: Years in “lower middle” income, 1950-2010

- **East Asia:** Japan, Taiwan, South Korea, China: < 2 decades before rising to UMI:
- **Southeast Asia:** Malaysia, Thailand: almost 3 decades before rising to UMI: Malaysia, Thailand. Philippines: more than 3 decades
- **Latin America :** Chile: 4 decades. Mexico, Costa Rica, **Brazil**, Jamaica, Ecuador, Columbia, Peru: 5+ decades.

More stylized facts in favor of MIT

- **4. World Bank 2012:** In 1950, 101 countries = **middle** income. Of those, only 13 grew to **high** income by 2008
- **5. IMF (Aiyar et al.) 2013:** middle-income countries have a higher frequency of “growth slowdowns” than low-income or high-income countries, for all of 15 plausible ranges of “middle income”

“Asiaphoria” unfounded

- “Asiaphoria” = center of gravity of world economy shifting rapidly to China and India, based on extrapolating China and India’s fast growth far into the future.
- EG, OECD report *Looking to 2060: Long-term Global Growth Prospects* (2012) forecasts per capita growth from 2011 to 2020 at 6.6% for China and 6.7% for India.

Conclusion: MIT is “real enough”

- Very few **non-western** countries have become developed countries in past 200 years.
- Middle-income countries experience high growth volatility, & growth rate regression to the global mean.
- Policy makers must take MIT seriously. It is “real enough”

MIT as special case of “peripherality”

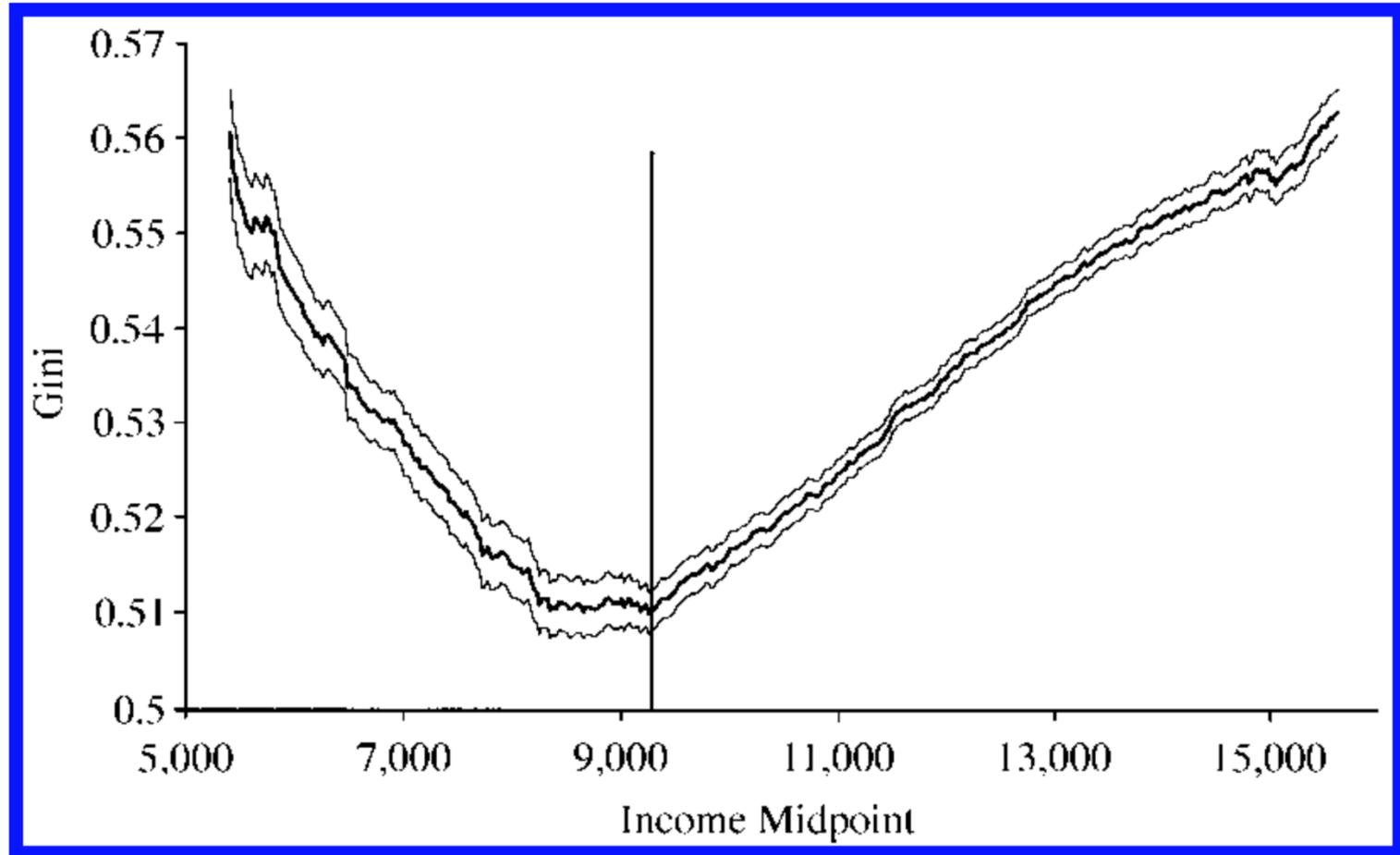
- Ragnar Nurkse, Gunnar Myrdal, Hans Singer, Raul Prebisch, Antonio Castro, Bresser Pereira would not have been surprised by stylized facts supporting MIT hypothesis
- MIT is special case of their wider “core-periphery” dynamics
- Mainstream development economics has ignored these dynamics

Mechanisms of MIT: (1)

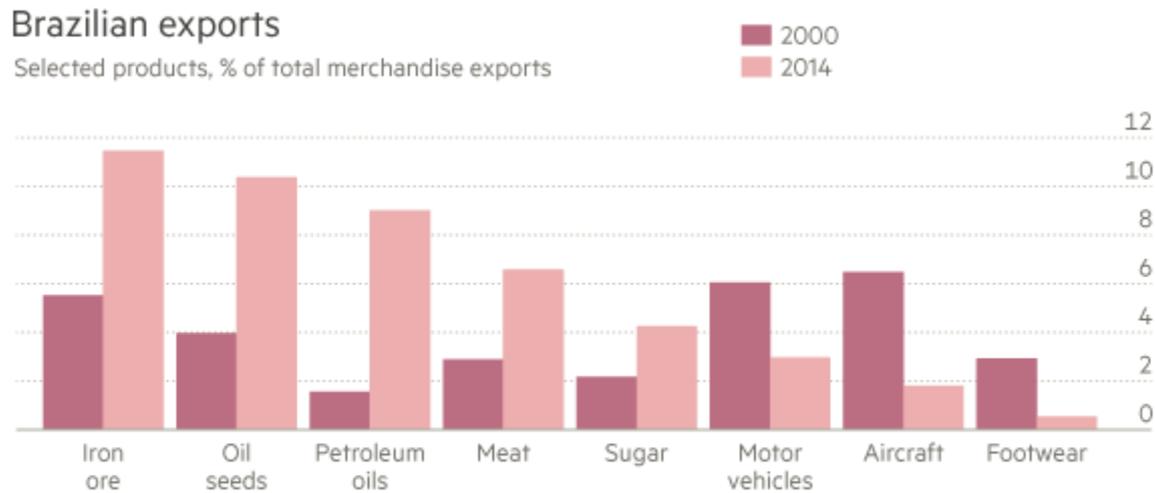
production/export structure

- 1. Middle Income countries with **undiversified production & export** structures, tend to stay longer in MI range (or Lower Middle Income range). Unable to jump to different set of products with higher value-added
- Countries whose manufacturing sector dominated by **foreign-owned** firms & dependent on technology imports face a “**glass ceiling**” when trying to create one controlled by local managers & with substantial local technology development

Production diversification & GDPPC. (\$9,000 in 1985 \$ = \$20,000 in today's \$)



Brazil's manufacturing disaster!



Source: Unctad

FT

Yusuf & Nabeshima on SE Asia

- *Tiger Economies Under Threat* (2009): “Unlike the original East Asian Tiger economies, **the Southeast Asian Tigers have yet to build the indigenous capacity to design, to innovate, and to diversity into new and more profitable areas** with good long-run prospects, and very few of their firms have created regional – much less global – brand names.... More disquietening is **the sparseness of backward links from MNC operations**, which would signify progressive industrial deepening, as has occurred in Korea and Taiwan [China], and as is already under way in China. This **lack of backward links means that domestic value-added in manufacturing remains low**. Moreover, none of these countries has nurtured large and dynamic producers of tradable services” (10).
- **Malaysia:** “Malaysian industry appears to be **sliding down the technological slope**, and incentives for workers to improve their skills are weakening” (26).

Mechanisms of MIT: (2) debt trap

- Through 1970s till today western IOs & economists urge developing country govts to adopt strategy of “economic growth with foreign borrowing”. Dangers downplayed.
- When developing countries fell into debt trap, vulnerable to western “Washington Consensus” conditions

How to escape MIT?

- 1. Need “industrial policy” to impart “directional thrust” to markets
- Evidence: Most countries which have passed from “low” to “high” income (excluding oil producers, etc.) since 1960 have had a state which actively promotes some sectors ahead of others, in line with coherent national plan
- Manufacturing equipment for **renewable energy** presents huge new opportunities

Appropriate industrial policy instruments

- “Price” instruments like tariffs & selective subsidies are relatively easy to implement; but constrained by WTO rules & vulnerable to corruption
- But plenty of scope remains for non-price instruments

Non-price industrial policy

- Coordination of investments via (1) entry regulation, (2) investment cartels, (3) negotiated capacity cuts.
- Policies to achieve economies of scale, such as (1) production licensing conditional on production scale, (2) state-mediated mergers and acquisitions.
- Regulation of technology imports, such as screening for import of obsolete technology.
- Regulation of FDI, via (1) ownership restrictions, (2) local content requirements, (3) technology transfer requirements, (4) mandatory worker training.
- Export promotion, via (1) subsidies, (2) loan guarantees, (3) marketing support, (4) national campaigns to persuade producers it is their “national duty” to export, supplemented with prestigious export prizes.
- Government allocation of foreign exchange, prioritizing imports of capital goods and discouraging imports of luxury consumer goods.

2. Industrial policy (IP) organization

- Govt should be cautious of World Bank/OECD prescription for “effective” state = “regulatory” state = “New Public Management” state
- Since 1980s World Bank’s “good governance” agenda has rejected Weberian centralized bureaucracies which intervene with command & control mechanisms to deliver specific outputs. It prescribes small policy-making units aimed at expanding scope for private sector (privatization, de-regulation) & regulating specific markets by delegating to specialized, decentralized agencies. “New Public Management”
- OECD has joined in. 5 “key partners”: Brazil, China, India, Indonesia, S Africa

How to create effective IP organizations?

- Cross-country experience suggests that “islands of excellence”, “pockets of effectiveness”, can be created & sustained, even in surrounding bureaucratic swamp
- 1. Top of government must be committed to mission
- 2. Agency director must be appointed **by the top**

Effective IP organizations (ctd)

- 3. Appointment must by-pass normal, patronage criteria – probably against a lot of elite opposition
- 4. Director will come from **outside the inner elite**. Hence less vulnerable to “**insider’s dilemma**”
- 5. Initially director has **weak** political ties to top political authority; but once appointed must develop **strong** ties to top, for defence
- 6. Director must protect autonomy of agency by manipulating connections to politicians, firms, unions. **Autonomy is relational.**

Challenge II: curbing climate disruption

- Earth has moved from period of slow, linear climate change into “**abrupt climate disruption**”, first time in human history.
- Self-reinforcing feedback loops have started (eg methane release, Arctic ice melt)
- IPCC worst-case scenarios keep having to be revised for the worst.
- Question: how to achieve “**low-carbon, climate-resilient**” economic development?

Climate disruption: “solution” (1)

- (1) For past 20+ years, “**global deal on burden-sharing**”: states negotiate emissions limits, under UN (eg Kyoto treaty 1997; 2012 Rio + 20 conference)
- 20 years of this multilateral approach have achieved little (eg Copenhagen 2009). Like rearranging deck chairs on Titanic.

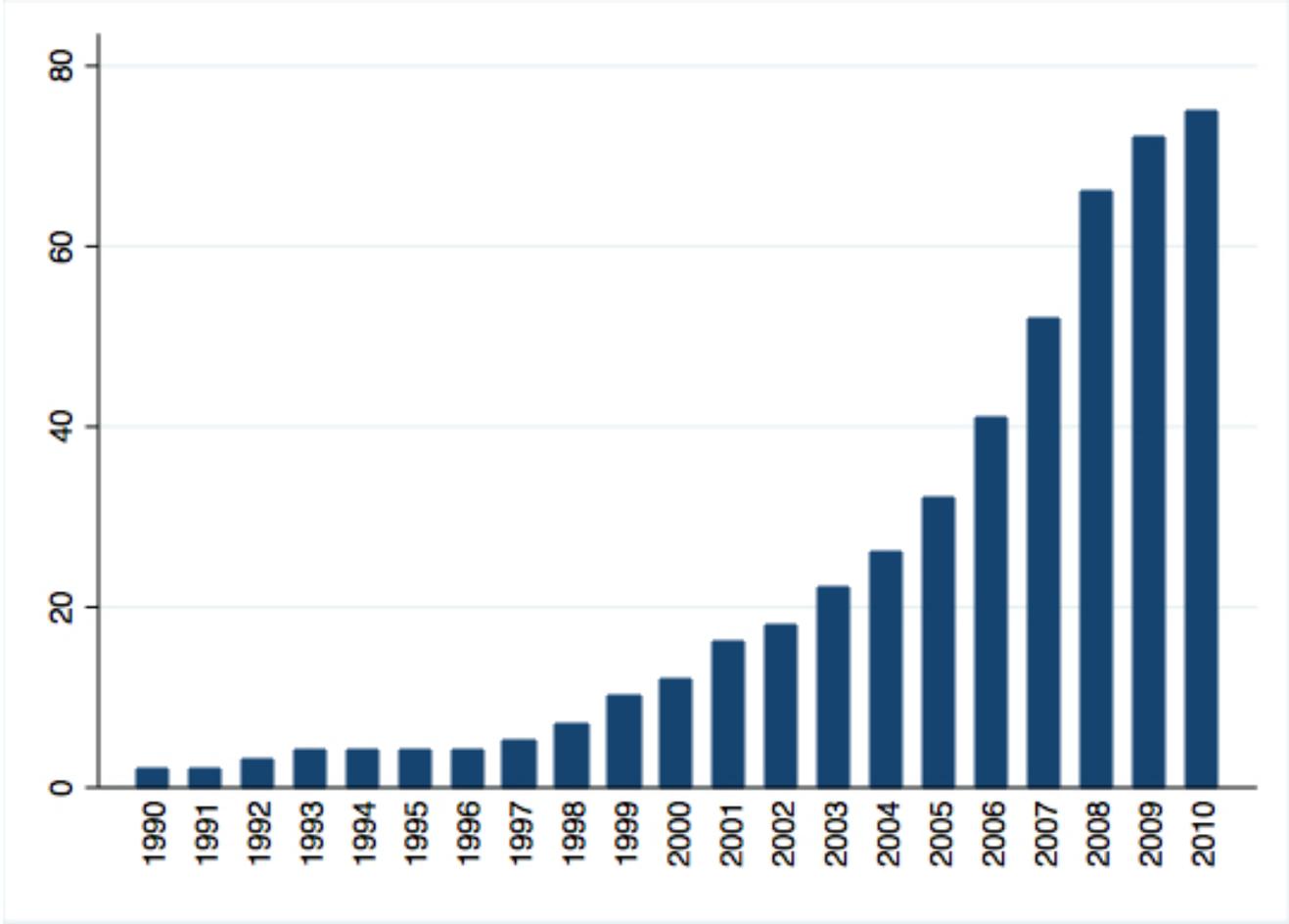
Why failure of model of “global inter-state deal”?

- Multilateral governance in many fields gridlocked: eg forests, fisheries, IMF. States have strong incentives to “free ride”
- On climate: Key is G2 = US & China = 40% global emissions. In both US & China, domestic politics blocks inter-state agreement on “**burden sharing**”.
- Other govts use G2 inaction as excuse.

Climate disruption: “solution” (2)

- (2) **Since 2000**, upsurge of climate mitigation & adaptation actions by cities, regions, corporations, giant funds, CSOs; many linked across borders
- (Also in other environment domains – Forest Stewardship Council, Marine Stewardship Council)
- **“Transnational climate governance” (TCG) based on “coalitions of the willing”.**

Transnational non-state climate governance coalitions: 1990-2010



Examples of TCG

- C40 (40 large cities)
- E8 (8 major electricity companies)
- Investor Network on Climate Risk
- Institutional Investors Group on Climate Change (consortium of EU pension funds & other giant funds)

Limits of sub- & non-state action on climate change

- (1) Many coalitions are “shells”. Of 300 “partnerships” announced at 2002 World Sustainability Summit, 65% not operational by 2012 (Hsu et al 2015). Like Corporate Social Responsibility units in companies.
- (2) Coordination between the coalitions very limited.
- (3) Large imbalances in coverage -- lots on renewable energy, little on adaptation.
- (4) Based mainly in North. But, reporting bias?

“Solution” (3): Synergy between non-state, state, & UN processes

- Now, multilateral approach moving away from “global deal on burden-sharing” to more modest “**pledge & review**”, where states publish pledges (eg for Paris December 2015).
- This opens way to **synergy** between multilateral & transnational thrusts : (1) Govts can “**orchestrate**” non-state actors towards public goals, seeing them not as alternatives to state actions but as complements & means of implementation of national pledges.
- (2) Non-state actors can build coalitions to support state actions.

Sounds good, but ...

- National pledges for Paris COP21, December 2015:
- Pledges so far imply annual global emissions by 2030 of **59** bn tons of CO₂e
- UNEP: **36** bn tons is maximum if 50-66% chance of limiting temperature rise to 2C Grantham Institute 2015
- Private investors (eg giant funds) face Prisoner's Dilemma. Await strong govt commitment (eg carbon price, etc), to avoid being "suckered"

Also, developing country worries ...

- (1) Bringing non-state (North) actors into UN negotiations may raise burdens for them. Eg erode principle of “common but differentiated responsibilities” (CBDR)
- (2) May give governments excuse to minimize own efforts

“Solution” (4): Industrial policy

- See John Matthews’ paper!
- Key point: Countries can boost their energy security by MANUFACTURING equipment for renewable energy, & reaping benefits of “increasing returns” and “forward and backwards linkages” around manufacturing.
- Requires industrial policy, not just “high price on carbon”

“Solution” (5): broaden out from “climate change”

- “Climate change” carries connotations which are (1) abstract & (2) focused on “costs”, “burdens”, “disasters”
- Look for themes with more positive connotations: eg energy SECURITY
- Eg Food safety. Everyone can understand “food safety”.
- Eg “**prosperity without growth**”: shift society away from “working more to buy more goods” towards “happier in relationships”

Climate change optimists should remember:

- “Optimism is just pessimism without the added information”

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THE END

(4) Years in “lower middle” income

- Define “lower middle income” as GDPPC of PPP\$ 2,000 – 7, 250 a year (about \$5.50 – 20 a day). How many years as LMI b/w 1950 – 2010?
- (** = ascended to “high income”; * = ascended to upper middle)
- East Asia: Japan, 17 years**; Taiwan, 19 years**; South Korea, 19 years**; Singapore, 28 years**; China, 17 years*.
- Southeast Asia: Malaysia, 27 years*; Thailand, 28 years*; Philippines, 34 years; Indonesia, 25 years.

MIT: conventional neoclassical narrative denies its reality

- **There is no MIT.** Adam Smith was right: “Little else is required to carry a state to the highest degree of opulence from the lowest barbarism, but peace, easy taxes, and a tolerable administration of justice, all the rest being brought about by the natural course of things” (1755).
- Gregory Mankiw (professor of economics, Harvard U, former chair of Council of Economic Advisors, author of influential textbook) said, “Adam Smith was right when he said, ‘Little else is required ...’”, WSJ 3 January 2006
- Implies that **world economy open system, like marathon race.** Position of a country depends on its internal conditions. **World Bank paradigm largely agrees**

(3) “Contender c’ies” in 1960 & 1979: what % ascended to high income?

- Define “contender” countries as having GDPPC just less than bottom country of old OECD (eg Portugal, Greece) down to 2/3 of bottom OECD c’try. Take 1960-78, 1979-2000.
- Less than 15% of contenders in 1960 & in 1979 rose to top category by end of each period. Majority went to lower category

(4) Years in “lower middle” income

- Define 4 GDPPC categories. Low; lower middle; upper middle; high. “Lower middle” is PPP\$ 2,000 – 7, 250 a year (about \$5.50 – 20 a day). How many years as LMI b/w 1950 – 2010?
- **Brazil**, 53 years in LMI, and remained LMI by 2010

Years in lower middle income (ctd)

- **East Asia:** Japan, Taiwan, South Korea, China spent less than 2 decades in LMI before rising to UMI.
- **Southeast Asia:** Malaysia, Thailand, Indonesia, almost 3 decades (and Indonesia remains LMI). Philippines, 34 years.

(4) Years in LMI (ctd)

- **Latin America** : Argentina, 28 years**; Chile, 42 years**; Mexico, 53 years*; Costa Rica, 54 years*; **Brazil, 53 years**; Jamaica, 56 years; Ecuador, 58 years; Columbia, 61 years; Peru, 61 years.
- (* = reached upper middle income before end of period in 2010; ** = reached high income)
- Source: Filipe et al. 2012

MIT: Lessons

- Larger questions: (1) Is world economy an open system (like marathon race); or hierarchical system (limited “room at the top”)? (2) When might countries now in MI reach standard of living of now rich/developed countries?
- Bottom line: (1) Development is difficult, not automatic result of capitalist free market. (2) Many countries remain in-between “low” income and “high” income for three decades and more. (3) Developing countries show much higher growth volatility than developed countries, with growth accelerations typically followed by steep decelerations and long period of growth close to global mean growth rate. “Regression to the mean”

- Research by Charlie Roger & Tom Hale on TCG finds that domestic political conditions strongly affect the level of participation in TCG
- Countries with stronger civil rights & federal structure have stronger TCG participation
- Countries with national govts strongly committed to national climate action have stronger TCG participation

- Leading countries on TCG: most European
- Lagging countries: Russia, Pakistan, Saudi A, Egypt, Nigeria, Venezuela
- Intermediate countries: those with strong civil rights but limited national commitment to climate change: eg US, Canada, Australia
- Intermediate countries: those with strong national commitment to climate change but limited civil rights: eg China, Indonesia, S Africa

- This is happening on limited scale: eg 2014 UNSG + CSOs + corporations + political leaders in Climate Summit, announced new climate commitments

What states should do to encourage non-state actions

- Publicize, showcase actions
- Catalyse actions, especially in areas where non-state actions lacking
- Track performance of individual & cumulative initiatives
- Help learn from experiments
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How to escape MIT: evidence

- 1. Countries in Middle Income range with relatively **undiversified** export & production structures tend to stay longer in MI range (or Lower Middle Income range). Unable to jump to different set of products with higher value-added
- There is “**glass ceiling**” between manufacturing sector dominated by foreign-owned firms, dependent on technology imports, & one dominated by local managers & with substantial local technology development

Examples of regression to mean

- **Brazil:** 1967 to 1980, grew at an average of 5.2%; then for the next 22 years to 2002, at a GDP per capita average rate of 0.
- **Japan:** in late 1980s analysts extrapolated rapid growth from the 1960s to the 1980s far ahead, even talked of “Japan as Number One”. Japan’s real GDPPC grew at only 0.6% per year on average 1991 – 2001. Total factor productivity, which had doubled between 1961 and 1991, *fell* by 12% between 1991 and 2011.

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But, MIT could be special case along growth slowdowns
a function of **preceding pace of growth**

- Pritchett & Summers (2014): no close correlation between level of income & growth slowdowns
- Close correlation between fast pace of growth & subsequent sharp slowdowns, regardless of income level

Pritchett & Summers (ctd)

- Episodes of “super-fast” growth ($> 6\%$ pa) lasting more than 15 years uncommon
- China set world record by 2010 (end of data): 33 years.
- Only countries which come close: Taiwan = 32 years, 1962 – 94. S Korea = 29 years, 1962 - 91

Pritchett & Summers: conclusions

- Developing countries at all income levels show strong discontinuities in growth rates: fast accelerations followed by steep decelerations & longer periods of slow growth
- *“regression to the [cross-country growth] mean is the empirically most salient feature of economic growth. It is far more robust in the data than, say, the much-discussed middle-income trap”* (2014, emphasis added).

Examples of regression to mean

- **Brazil:** 1967 to 1980, grew at an average of 5.2%; then for the next 22 years to 2002, at a GDP per capita average rate of 0.
- **Japan:** Real GDPPC grew at only 0.6% per year on average 1991 – 2001. Total factor productivity, which doubled between 1961 and 1991, *fell* by 12% between 1991 and 2011.
- **China** today