

Recovery from Hurricane Maria: for Puerto Rico and Puerto Ricans

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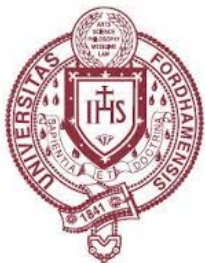
Hurricane Maria

Devastating hurricane, cause almost 3000 deaths directly, literally left Puerto Rico in the dark for nearly a year, many were forced to migrate, Maria compounded the economic and fiscal crisis in Puerto Rico which already left the Island's Economic future in doubt, with another 20% of



Puerto Ricans vs. Puerto Rico

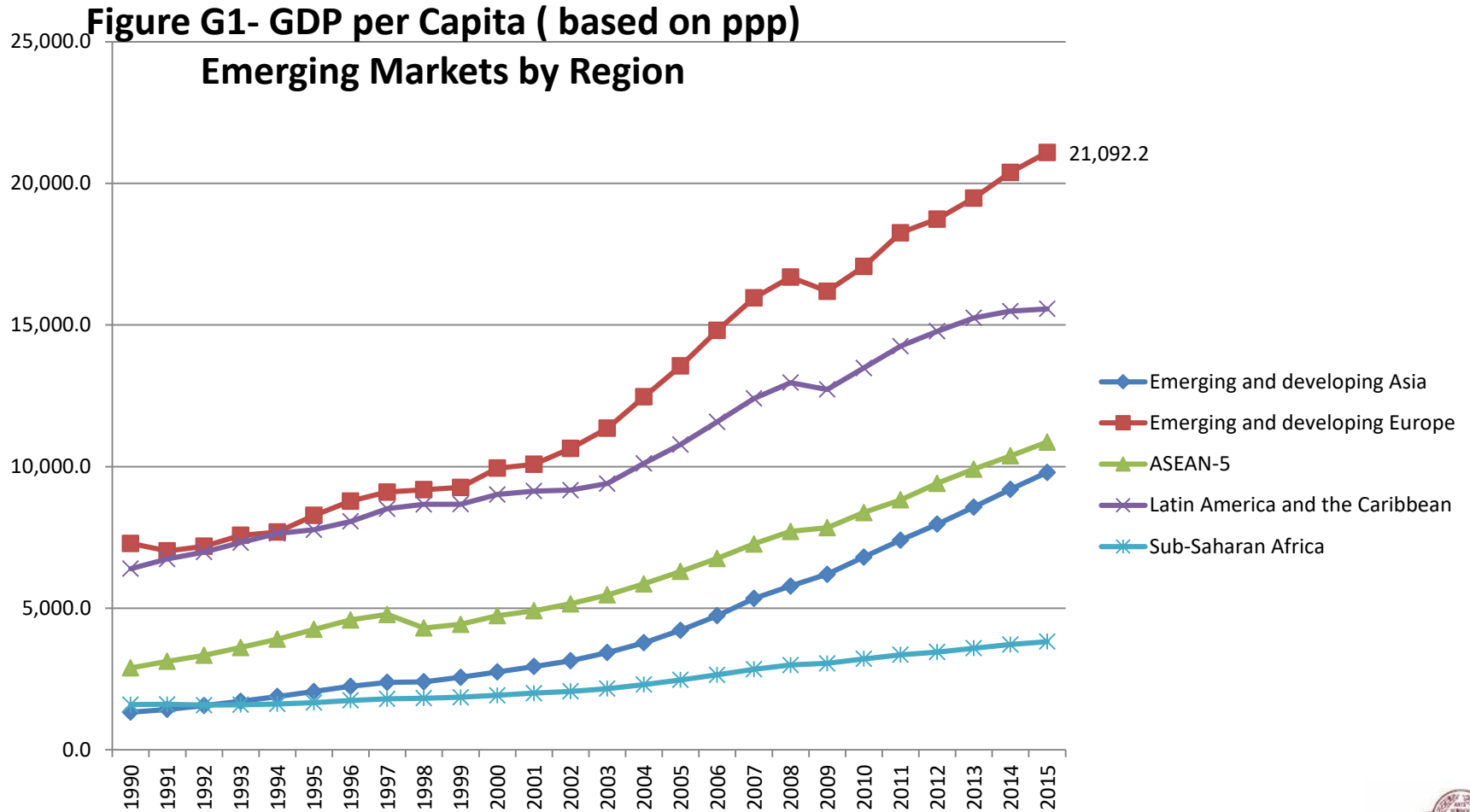
1. Unlike most Latin Americans Puerto Ricans have the option to move hopefully to regions with better schools and jobs.
2. Very low U.S. mainland unemployment make this an attractive option for many, here in New York for example, but even more in Florida and Houston...
3. Many Universities and Communities have welcomed displaced Puerto Rican families and students.
4. Economists have long argued geographic mobility (migration) is by far the most effective strategy for r wages and productivity...



Motivation



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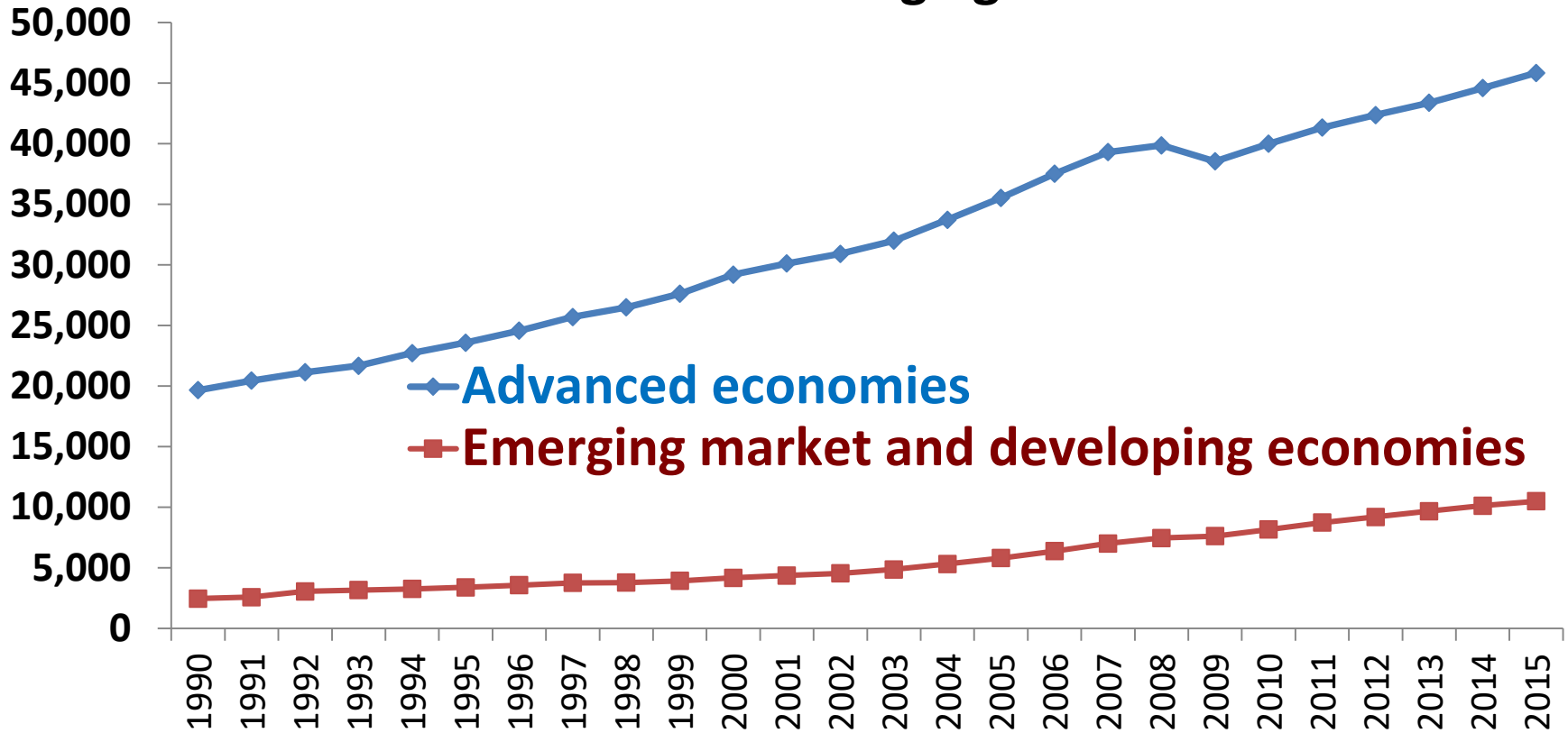


Source: International Monetary Fund, World Economic Outlook Database, April 2015



Motivation

Figure G2- GDP per Capita (\$ppp base year?)
Advanced and Emerging Markets



Source: International Monetary Fund, World Economic Outlook Database, April 2015



Literature review

- Classic growth literature examined average growth over a long period of time. For example Barro and Sala-i-Martin (1991) and Mankiw, Romer and Weil (1992).
- Pritchett (1998) called for more attention to “the hills, plateaus, mountains and plains” in the growth record.
- Growth slowdowns which are periods of stagnation or recession have received increasing interest. Ben-David and Papell (1998)
- Gill and Kharas (2007) note that middle income countries have grown less rapidly than either rich or poor countries. First to use the term “middle-income trap”.
- Eichengreen et al (2011) studied growth slowdown. They find that countries GDP growth declines by at least 2 percentage points when they reach middle income.
- Add Rodrik and Berg et al growth surges papers



Avoiding Middle-Income Growth Traps



The paper motive:

To provide an analytical characterization of “middle income traps” and suggest a number of public policies that government can pursue in order to avoid the middle income trap.



Main findings:

The middle income trap can be avoided if government implement public policies that improve access to advanced infrastructure, enhancing the protection of property rights and reforming the labor market.



Income Levels

The 2013 World Bank classification of income levels are:

- Low income: \$1,035 or less
- Lower middle income: \$1,036 to \$4,085
- Upper middle income: \$4,086 to \$12,615
- High income: \$12,616 or more



Growth Slowdown

The authors define growth slowdown as:

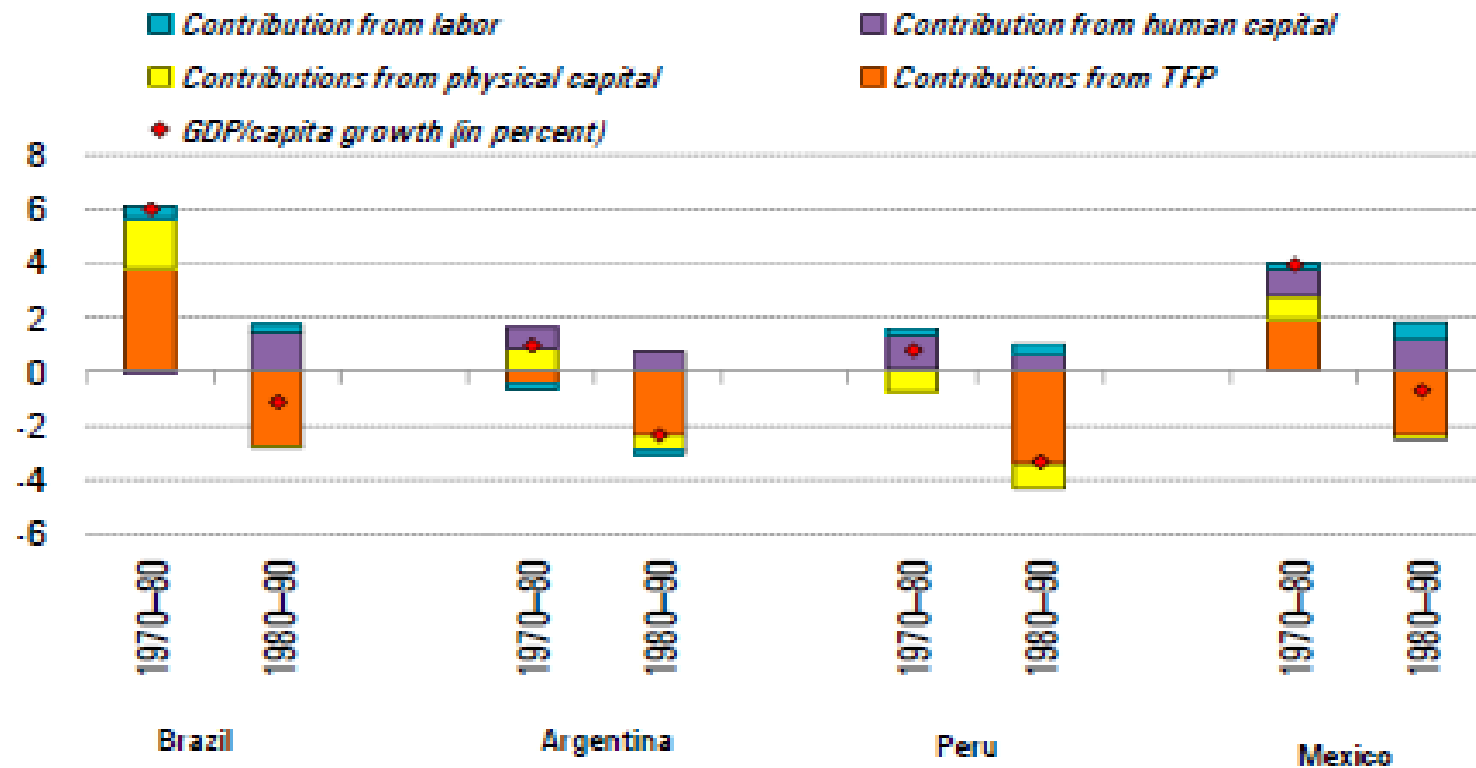
1. Prior to the slowdown the average growth rate was 3.5 per year or more.
2. A decline of at least 2 percentage points.
3. Per capita GDP is greater than 10,000\$ in 2005 prices.



What Causes Growth Slowdowns?

Steep falls in TFP growth appear to have an important role in growth slowdowns

Figure 4. Slowdown in Latin America: 1970s vs 1980s



Source: IMF staff calculations.



Why TFP growth weakens?

1. Low income countries can compete internationally by moving from agriculture to labor intensive, low cost manufacturing.
2. Low income countries “import” technologies.
3. The pool of unskilled labor is eventually exhausted.
4. Real wages in urban manufacturing rise and gains diminish.
5. Productivity growth from labor reallocation and technology catch-up are exhausted and the economy becomes trapped.



Avoiding the Trap

Policies that would attract more high ability workers to the innovation sector and improve productivity:

- Access to advanced infrastructure, particularly high speed communication networks.
- Enforcement of property rights in order to create incentive for innovation.
- Labor market reforms in order to allow labor movement from manufacturing to the innovation sector.

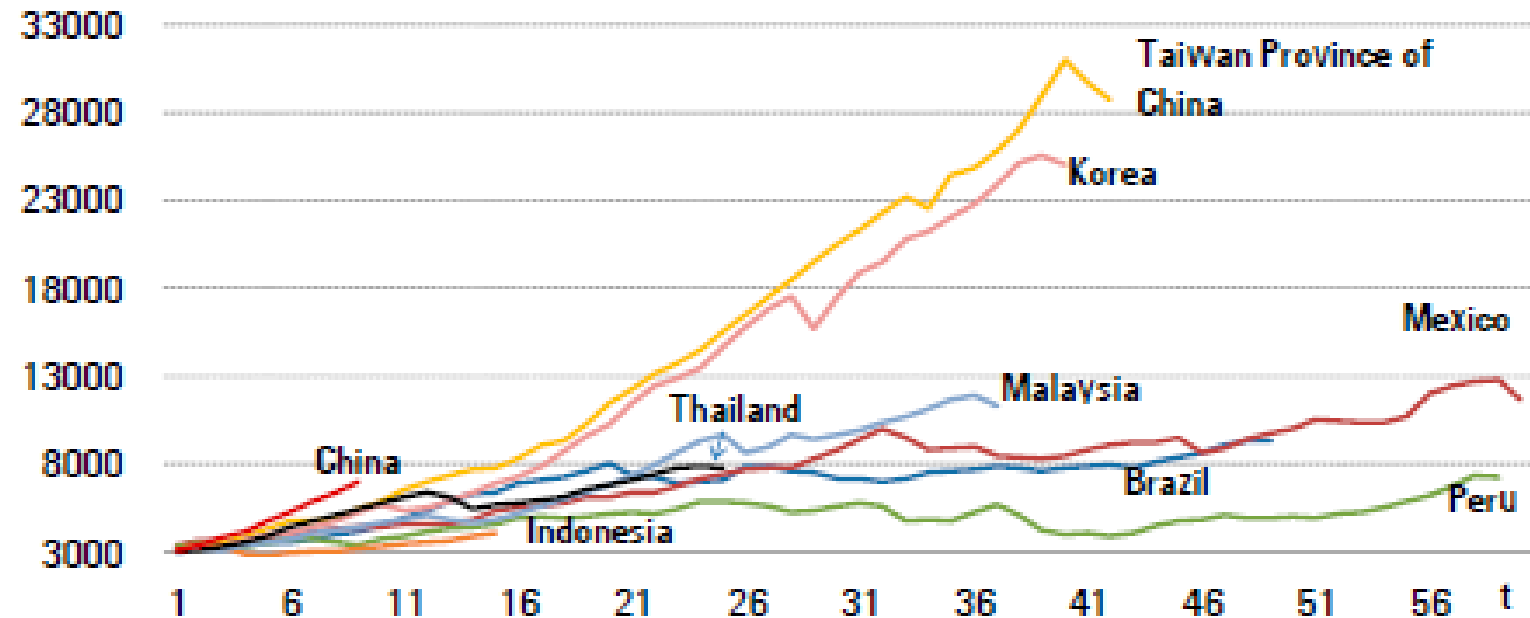


The East Asian Experience

Figure 1. Cross Country Comparison¹

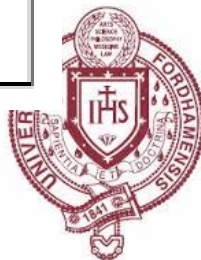
GDP/Capita

(in PPP U.S. dollars)



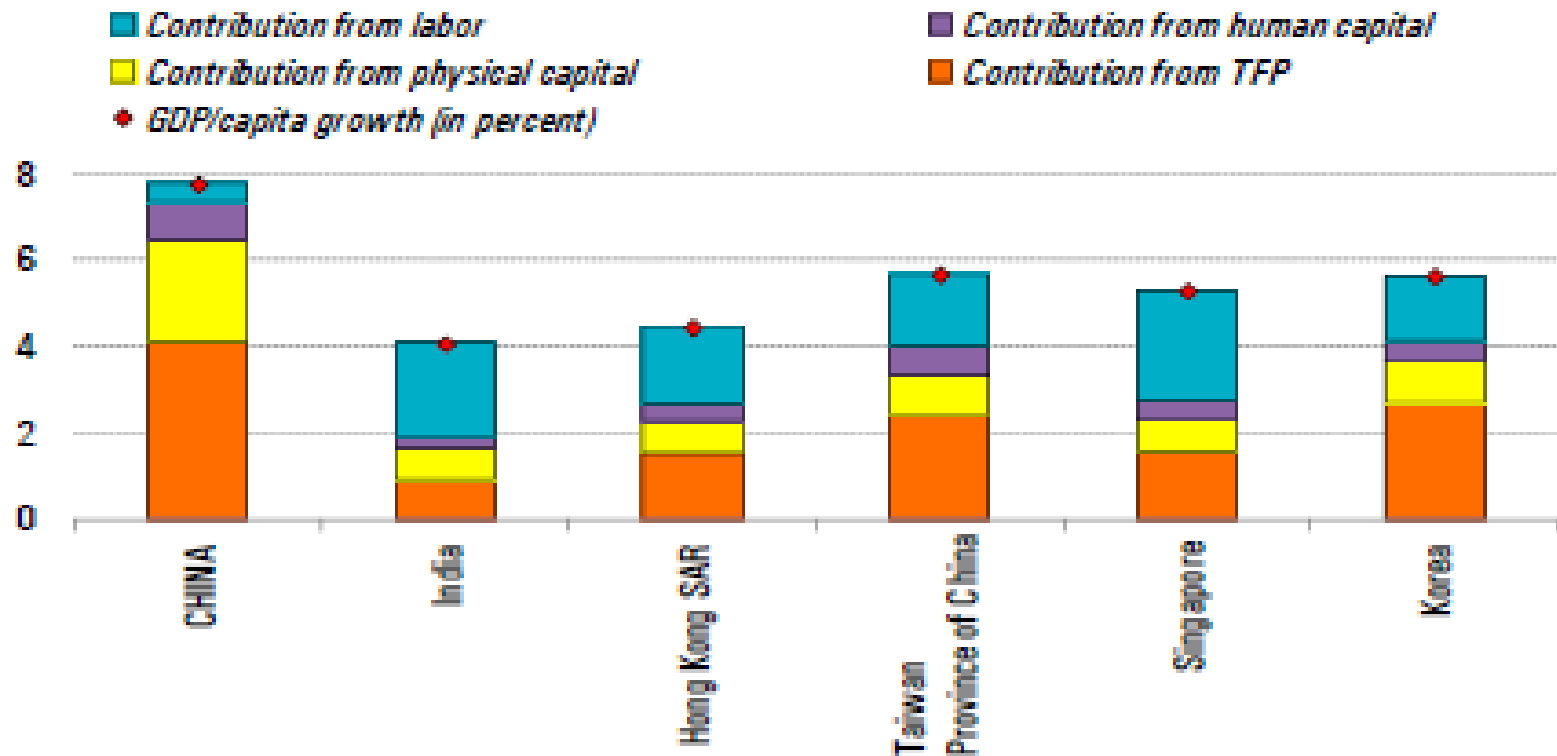
Source: IMF staff calculations.

¹ t=0 is defined as the year when the GDP per capita for a particular country reached 3000 U.S. dollars in PPP terms.



The Asia Experience

Figure 5. Growth Success in Asia



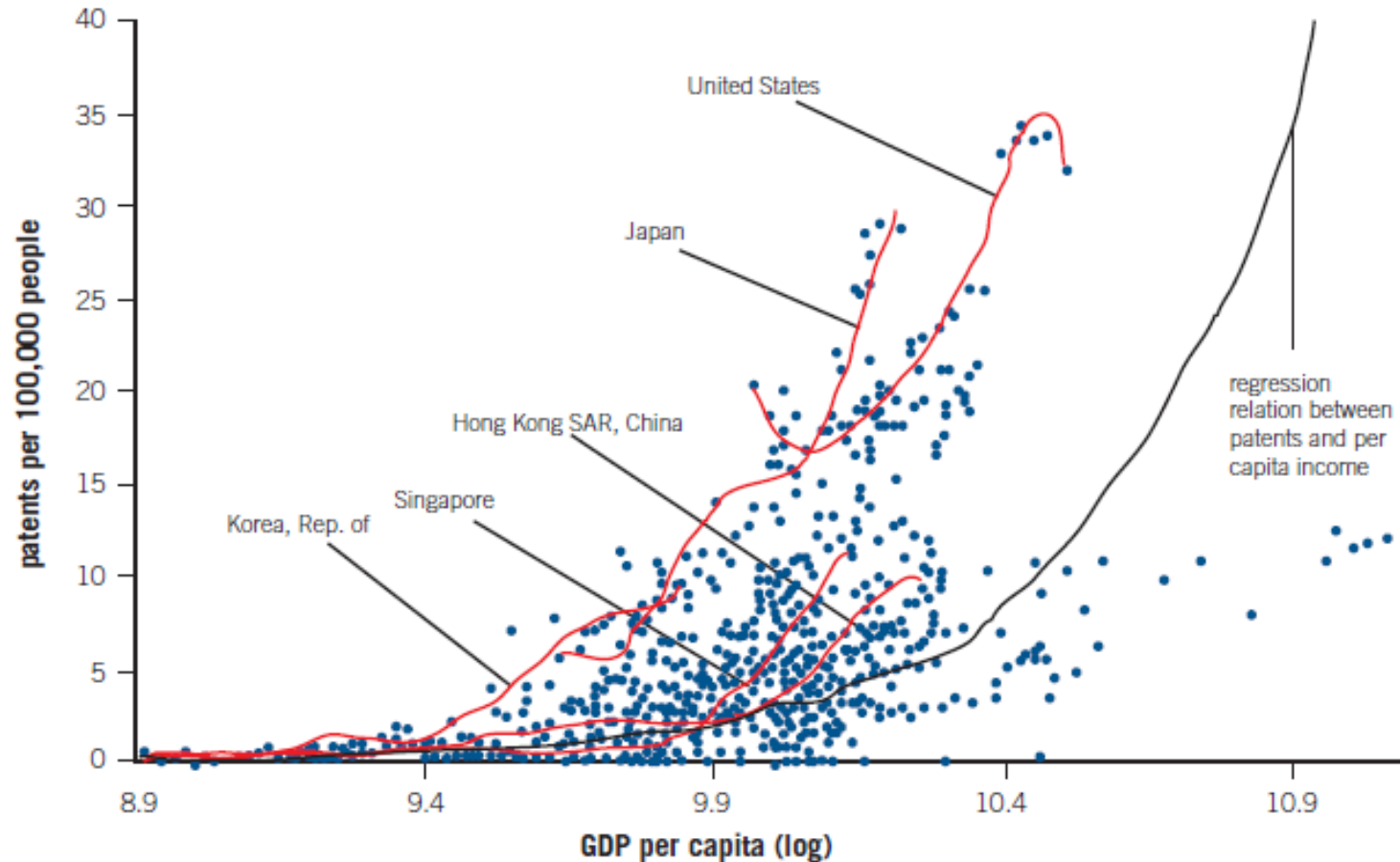
Source: IMF staff calculations.

Note: For the four tigers, the starting date is 1970, by which time GDP per capita had exceeded US\$ 3000 in PPP terms in each country. For the later growth miracles, China and India, the reference period is chosen to start roughly with economic liberalization: 1970-2009 for China, 1980-2009 for India.



The East Asia Experience

Figure 4. Patents in East Asia



Source: U.S. Patent and Trademark Office and World Bank estimates; Gill and Kharas 2007.



Conclusions and policy implications

- The middle-income trap is not inevitable.
- When the gains cheap labor and imitating foreign technology are exhausted government need to promote domestic innovation.
- Doing so requires: improving access to advanced infrastructure, protection of property rights and reforming labor markets.

