What Do We Know About Growth?

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Where Did We Start?

- In Western Europe, 1800
  - Incomes roughly same low level as Africa today
  - Life expectancy: 36 years
- Private sector enterprise
  - Created the industrial revolution, 1820-
    - Lifting societies substantially out of poverty
  - Led the way for new drugs, chemicals, vaccines, particularly from 1880 and again after 1940
    - Public health also important, but private business (even individual inventors) essential

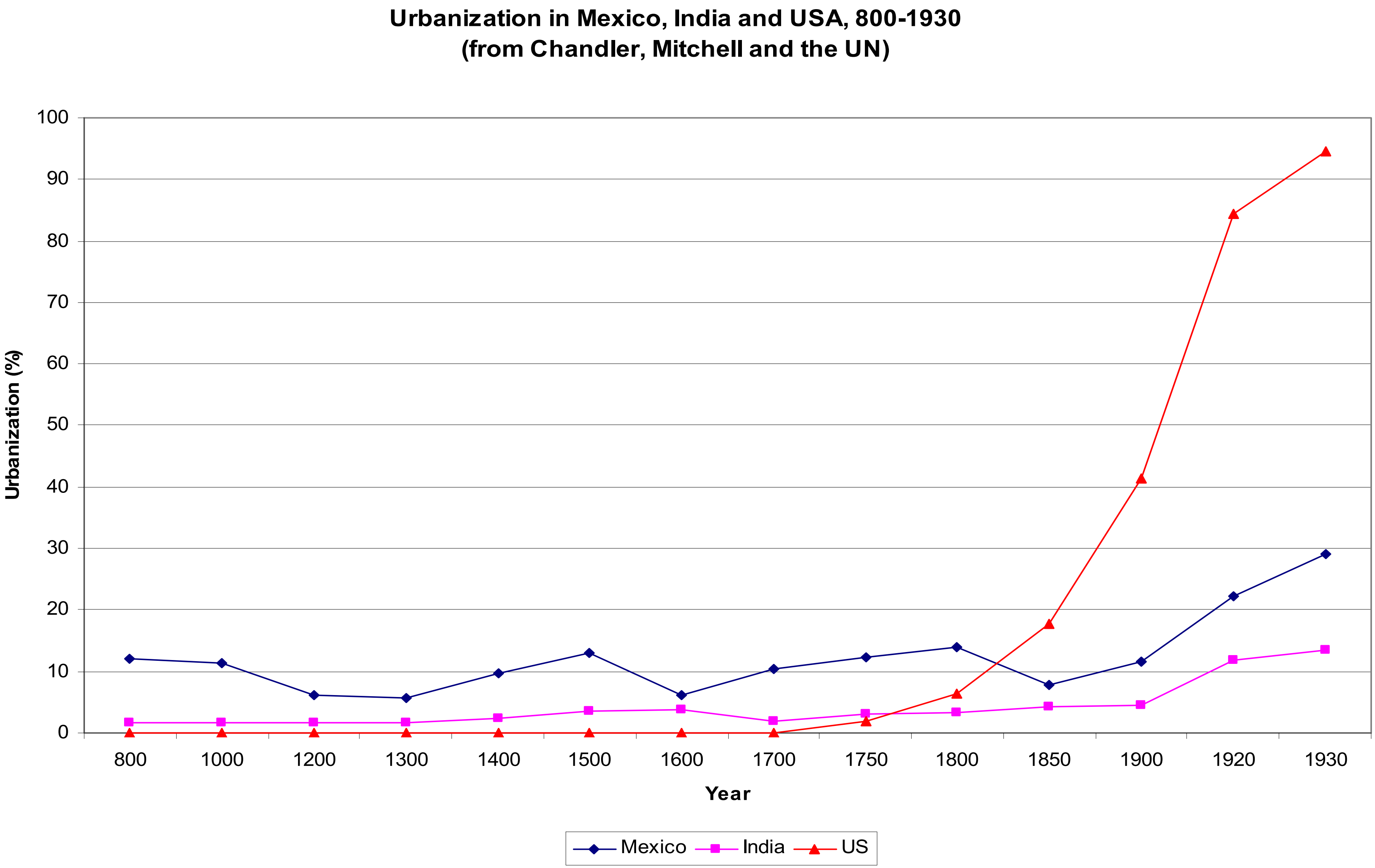
Why Argue With Success?

- Prosperity
  - Incomes per capita in “developed” world at unforeseen levels & continue to innovate, grow
  - Over the past 40 years, some countries have achieved unprecedented growth, “catching up” or becoming rich seems plausible
- Longevity
  - Life expectancies are higher than ever expected (or budgeted for…)
  - Shared across almost all countries
    - African average: 52 years (lower where major impact from HIV/AIDS)

Here's the Problem

- Massive divergence of incomes during the nineteenth century
  - Some industrialized early, spontaneous entrepreneurship plus sensible state policies
  - Others postponed, because were oppressed colonies or had other rulers who felt threatened by new people, new opportunities
- Gap in incomes that opened 1800-1900 hardly closed 1900-2006
  - Modest trend increase in global income level
  - Very few countries changed their relative income per capita during the 20th century, so many stayed poor
  - Prominent exceptions, but only a handful

When the Divergence Took Place



Source: Acemoglu, Johnson, and Robinson, 2002

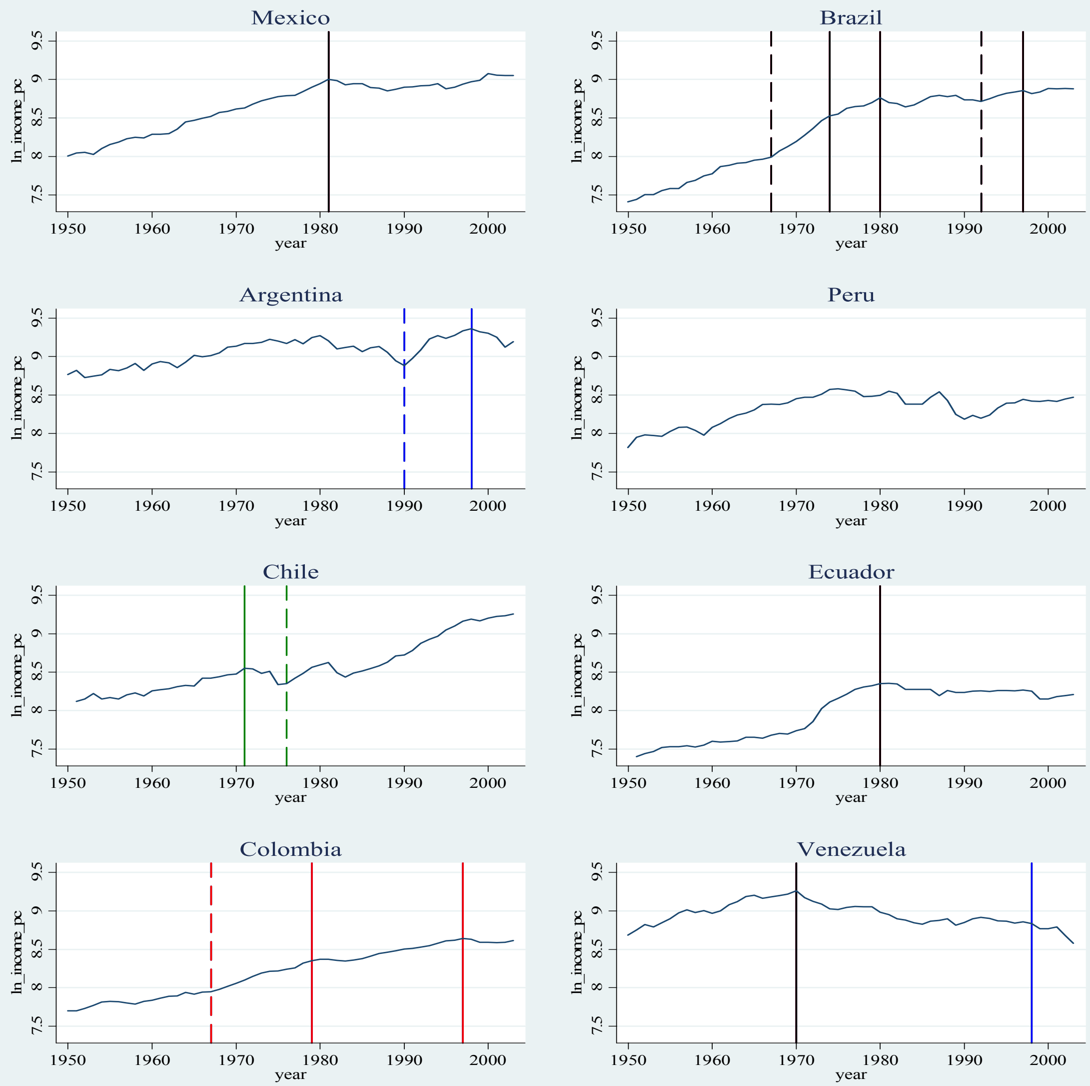
Important: this does not mean that poor countries never grow

- Most countries experience episodes of growth
  - Even badly run societies can grow fast for 10-20 years
- But there is no general tendency to convergence or catching up of incomes
  - For most countries, the most likely distribution of relative per capita income for the world in 2050 is what we have today
  - Whether this is also true at the individual level depends on what happens in India and China
    - For India and China, there are grounds for optimism
  - For much of the world, repeated rounds of economic/financial crises are likely (although form changes)

The Important Slide

Figure 4. Latin American Countries: Log Income Per Capita and Structural Breaks

(breaks at p=0.10 in black, p=0.25 in red, p=0.33 in blue, and p=0.5 in green; dashes denote upbreaks)



Minimum period between structural breaks set to 5 years. Source: Penn World Tables and authors' calculations

Source: Berg, Ostry and Zettelmeyer (2006) IMF

What Explains this Pattern in the Data?

- Weak Institutions Lead to Severe Crises, Repeatedly

- Main issue: Property Rights (& underlying political institutions)
  – Protection against expropriation <u>by government & powerful elites</u> (e.g., constraint on executive power)
  – Country-level, for entrepreneurs & investors

- Also important for middle income countries open to capital flows ("bumps in the road" or worse?)
  – Investor Protection
    - Protection against expropriation <u>by entrepreneurs</u>
    - Country level for outside investors
  – Corporate Governance
    - Protection against expropriation <u>by entrepreneurs</u>
    - Firm level for outside investors

What is Going On?
(The Short Version)

- Countries with weak property rights
  - Grow less over long periods of time (20-50 years)
  - Have more severe output collapses, banking failures etc
  - Can’t sustain productive private sector entrepreneurs
- Weak property rights are not generally due to mistakes or accidents
  - Historical origins (e.g., nature of colonialism): conscious creation and persistence
  - Favor powerful interests today (e.g., Russia)

Can We Fix Institutions?

- The optimists: yes, with Keynesian-type mechanisms and fine tuning
  - e.g., the World Bank's Doing Business indicators
- The pessimists: no, the vested interests are too strong and sophisticated
  - e.g., Adaptation of elites to transparency initiatives in Africa
- The realists: perhaps, at the same time as we get scaled-up solar power (Dan Nocera: 50 years…)
  - Impossible task? Depends on the resources and focus
  - e.g., Macroeconomic management is now much more effective than in 1970

Still, Why Worry? Private Sector Led Recent "Great Escapes" from Weak Institutions

Source: Johnson, Ostry and Subramanian (2006) IMF & Peterson Institute for International Economics

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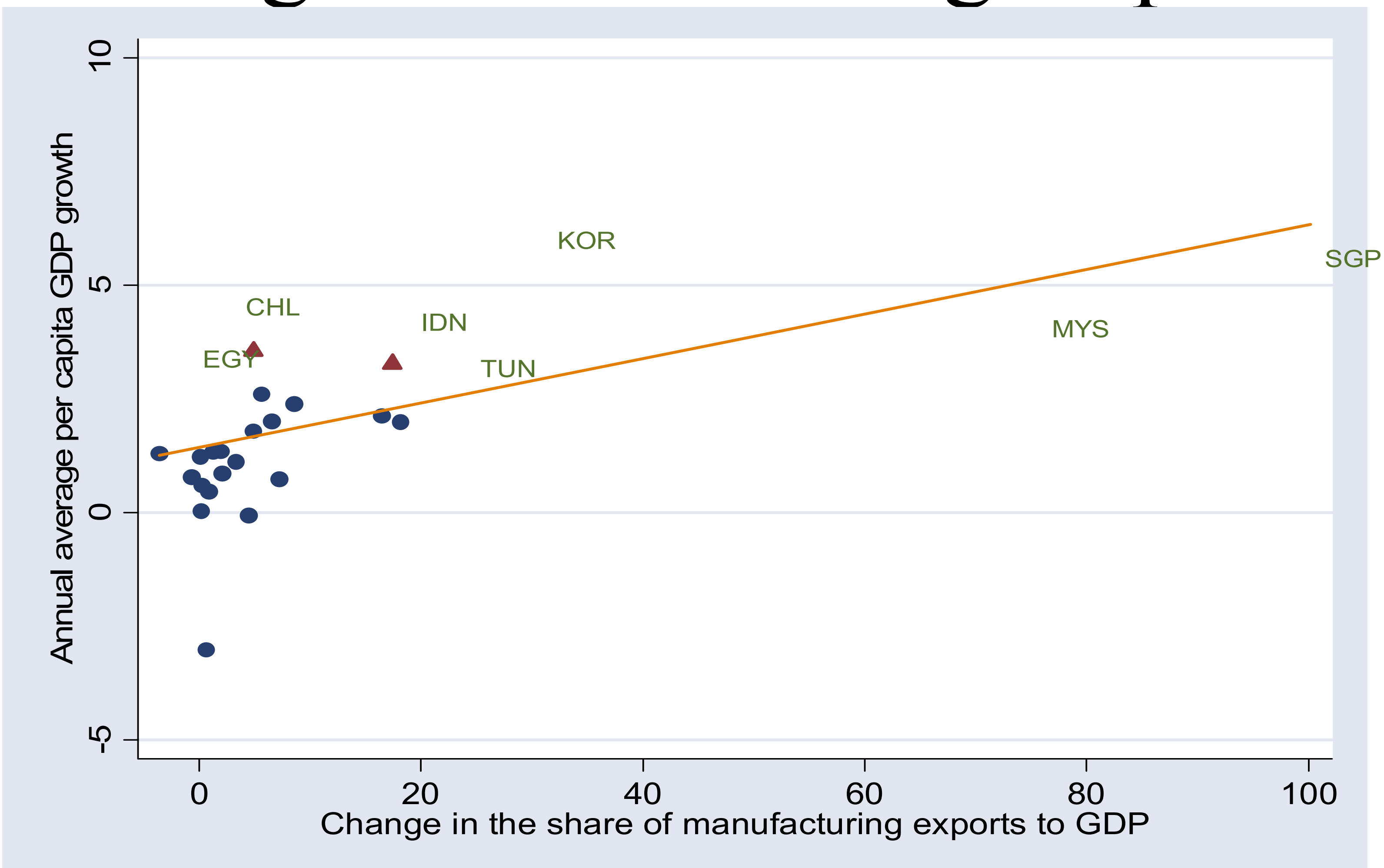
…Through Manufacturing Exports



Source: Johnson, Ostry, and Subramanian (2006) IMF & Peterson Institute for International Economics

The (Preliminary) Political Economy of Escapes

- Manufactured exports: relatively low margins
  - Need to innovate, be close to customer, fast to market
    - Not much value if expropriated (unlike natural resources or manufactures for protected market)
    - Corruption/heavy taxes will destroy the sector
- Creating a broader middle class that wants a more even playing field (to some extent)
  - Perhaps not create a small elite that wants political monopoly and to restrain entry/new people (these are their suppliers)

So the Private Sector Can Save the World?

- It's a bit more complicated; few escapes because
  - Standard policy prescriptions are probably necessary but not sufficient (IMF)
  - "Just export" doesn't work
    - Africa: rising price of commodities, hurts manufactures (NBER Project)
  - Growth can worsen some inequalities, feeding resentment and political backlash
    - E.g., Latin America (CGD taskforce)
- And where exactly are the poor people located today and in the near future?

Just the (Demographic) Facts Please

- World Population
  - Today: ~6.5bn
  - 2050: ~9.1bn
- Largest countries, with population, 2050 (UN)
  - India, 1.6bn + China, 1.4bn
  - USA: 400m (NB: population <u>falls</u> in most rich places)
  - Pakistan: 305m
  - Indonesia: 285m
  - Nigeria: 258m
  - D.R.Congo, Ethiopia, Mexico, Philippines, Uganda, Egypt: 100-200m each
  - Iran, Turkey, Kenya, Tanzania, Sudan, Colombia, Iraq: 50-100m each

Significant Aside: A Sad and Difficult Irony

- International epidemiological transition, after 1940 (innovation from the private sector!!)
  - Saved millions of lives
  - More people survived to have children
- Instrument for life expectancy; panel regressions or long differences 1940-80, etc (Acemoglu & Johnson)
  - Big increase in population
  - Little or no increase in GDP from better health
    - Caution: many micro effects do not make a big macro effect
  - GDP per capita (& per worker) actually fell in many poorer countries
  - Lasting demographic consequences, even through 2050 (also, varied impact of birth control)

Who is in and who is out of the Long Great Boom? (2000-2050)

- In: 5bn-; global modern production chains
  - Europe, including most of Eastern Europe
  - Former European settler colonies
  - Energy producers (with high fossil fuel reserves/pop.)
  - Asia with manufacturing exports + India
  - A few others
- Possibly Out: 4bn+, including much of
  - Latin America?
  - Africa?
  - Important parts of Asia? (Including some of Former Soviet Union, but not demographic expansion there)

Or is there another private sector, coming through?

- Innovation no longer so much driven by needs in rich countries
  - Not many fortunes at the bottom of the pyramid
  - But people who want to change the world, through technology & new business models
    - Microfinance as a forerunner, not a panacea
  - Leadership from private individuals in rich countries really can make a difference
    - But the key entrepreneurs must come from within the poor world
    - How much can they invest, how fast?

What’s Missing?

- We see, even in the poorest countries
  - Entrepreneurs
  - Early stage funding (angels, competitions [DM], etc)
  - Helping organizations (Endeavor, IFC’s GBI)
  - Social support, adoption new products/services
- We are not seeing
  - Anything that plays the role of venture capital
    - i.e., scaling up, fast, in ways that put alternative business models into head-to-head competition

It's Later Than You Think

- Based on what we see now, private sector led economic development will lift incomes substantially by 2050
  - for 2-3bn people (*yes, worry about the* CO_2)
- But at least half the world's population will likely not participate fully
  - Unless the model of private innovation, entrepreneurship and <u>scaling-up</u> changes (again)
  - Beware of unintended demographic consequences
    - Gates/Buffett, Clinton, Bono, etc, will have major impact in terms of saving lives in the poorest societies (public health)
    - Will these additional people stay poor? (economics & entrepreneurship; politics; still pre-"germ theory of disease")