

Economics 172:
Issues in African Economic Development

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Department of Economics
University of California, Berkeley

Economics 172:
Issues in African Economic Development

Lecture 2 – January 19, 2017

Lecture 2: Introduction to Economics 172

- Lecturer: Prof. Ted Miguel
Email: emiguel@berkeley.edu
Office hours: Friday afternoon. Please email Corinne Cooper (ccooper@berkeley.edu) for an appointment.
- GSIs:
Christina Brown (christinabrown@berkeley.edu)
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- Enrollment issues: Economics Department Head GSI
Katarina Jensen (headgsi@econ.berkeley.edu)

- Description: This course will examine leading issues in development economics, with a focus on Sub-Saharan Africa. This course will also explore the empirical methods used to rigorously measure the impact of development and anti-poverty programs. (4 units)
- Prerequisites: At least one term of intermediate economics, and some prior coursework in statistics or econometrics.

- Grading: Graded on a curve (median = B+)
- Three problem sets – 30%
-- R statistical software (see syllabus for details)
- Midterm exam (Tuesday March 14th) – 25%
- Final exam (during exam week) – 35%
- Class participation and attendance – 10%

- Class participation (10%) has two components:
- Student remarks, comments and questions in both lecture and section – 5%
- Lecture attendance and participation will also be evaluated using “clickers” – 5%
- **Clickers** required starting next Tuesday, January 28th (see syllabus for details).
- Lectures will be “screencast” online (i.e., slides plus audio) with a one week delay on the CalCentral class page for Econ 172.

- bCourses page – Contains most course readings
- Reading packets at Bancroft Copy Central (soon)

- Required books:
 - Angrist & Pischke (2015) *Mastering 'Metrics*
 - Fisman & Miguel (2008) *Economic Gangsters*
 - Miguel (2009) *Africa's Turn?*

- Optional book (free online):
 - Grosz-Ngate, Hanson & O'Meara (2014) *Africa, 4th Edition*

- Syllabus outline:

Lectures 1-2: Patterns of global & African economic development

Lectures 3-4: Theories of economic growth

Lectures 5-9: Geography, health and development

Lectures 10-12: The economics of HIV/AIDS

Lectures 13-15: Investing in human capital

[MIDTERM EXAM]

Lectures 16-19: Climate and economic shocks in rural households

Lectures 20-22: Public goods, corruption, and ethnic divisions

Lectures 23-24: Historical legacies of slavery and colonialism

Lectures 25-27: Current successes and future challenges

[FINAL EXAM]

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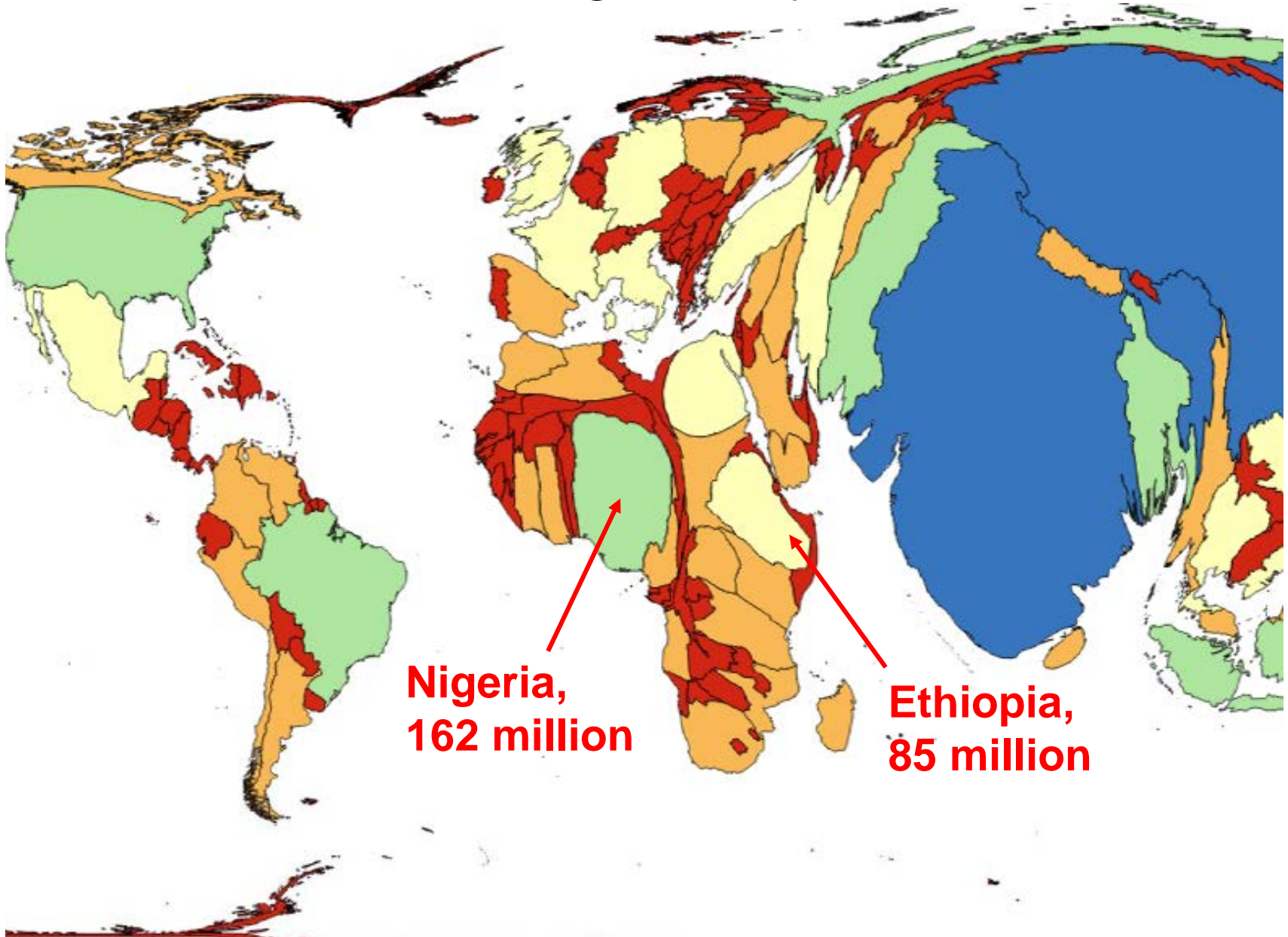
[FINAL EXAM]

Questions?

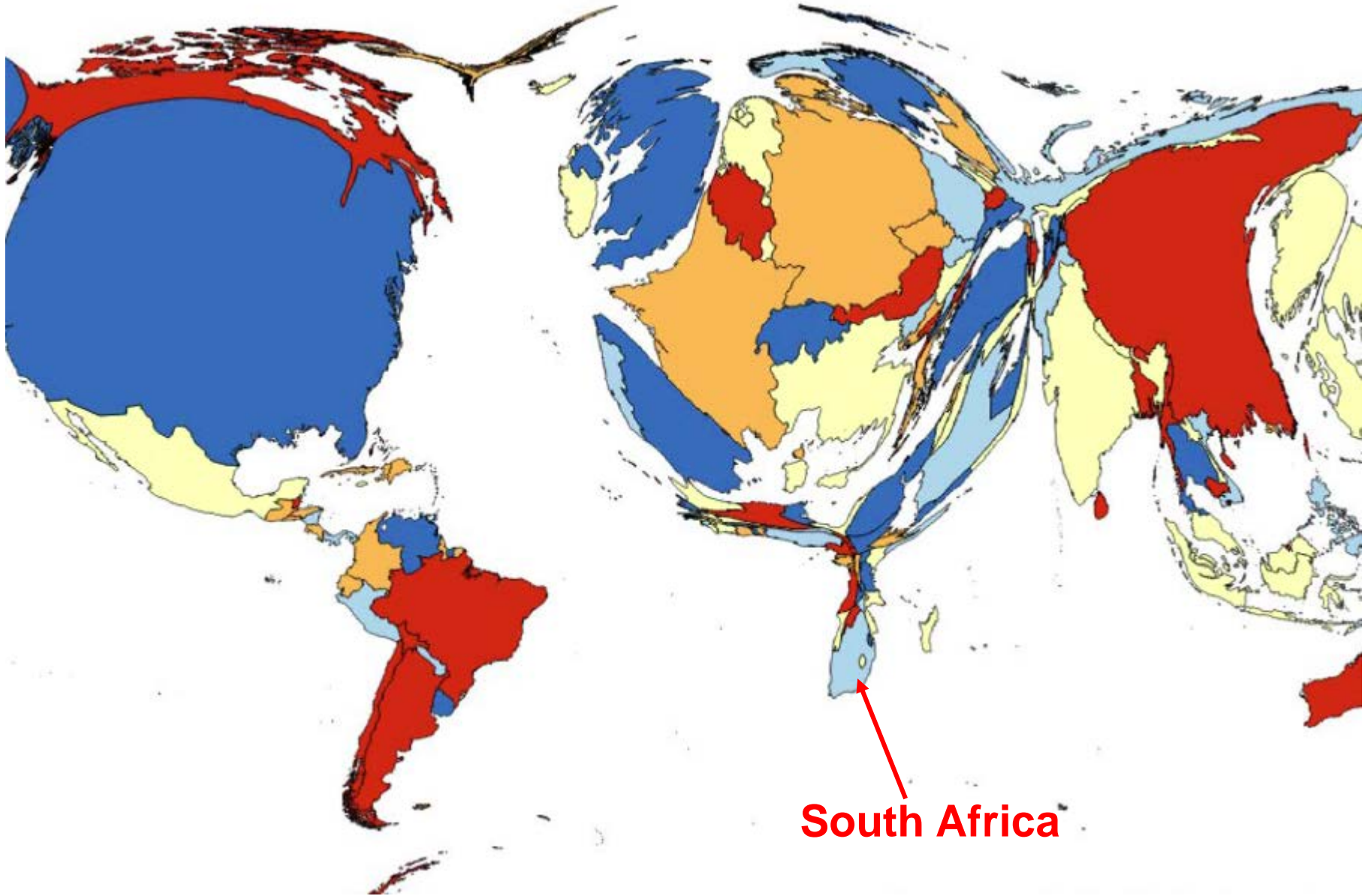
Patterns of Global Economic Development

- The world's four major less developed regions are East Asia, Latin America, South Asia, Sub-Saharan Africa
- Of the four, **Sub-Saharan Africa** has had the worst economic performance since 1975, and will be our focus.
- The goal of this course is three-fold:
 - (1) to understand why Africa is so poor, and
 - (2) what economic policy / public policy can do about it;
 - (3) to learn tools useful in development policy analysis and program impact evaluation.

World map, area weighted by 2011 population

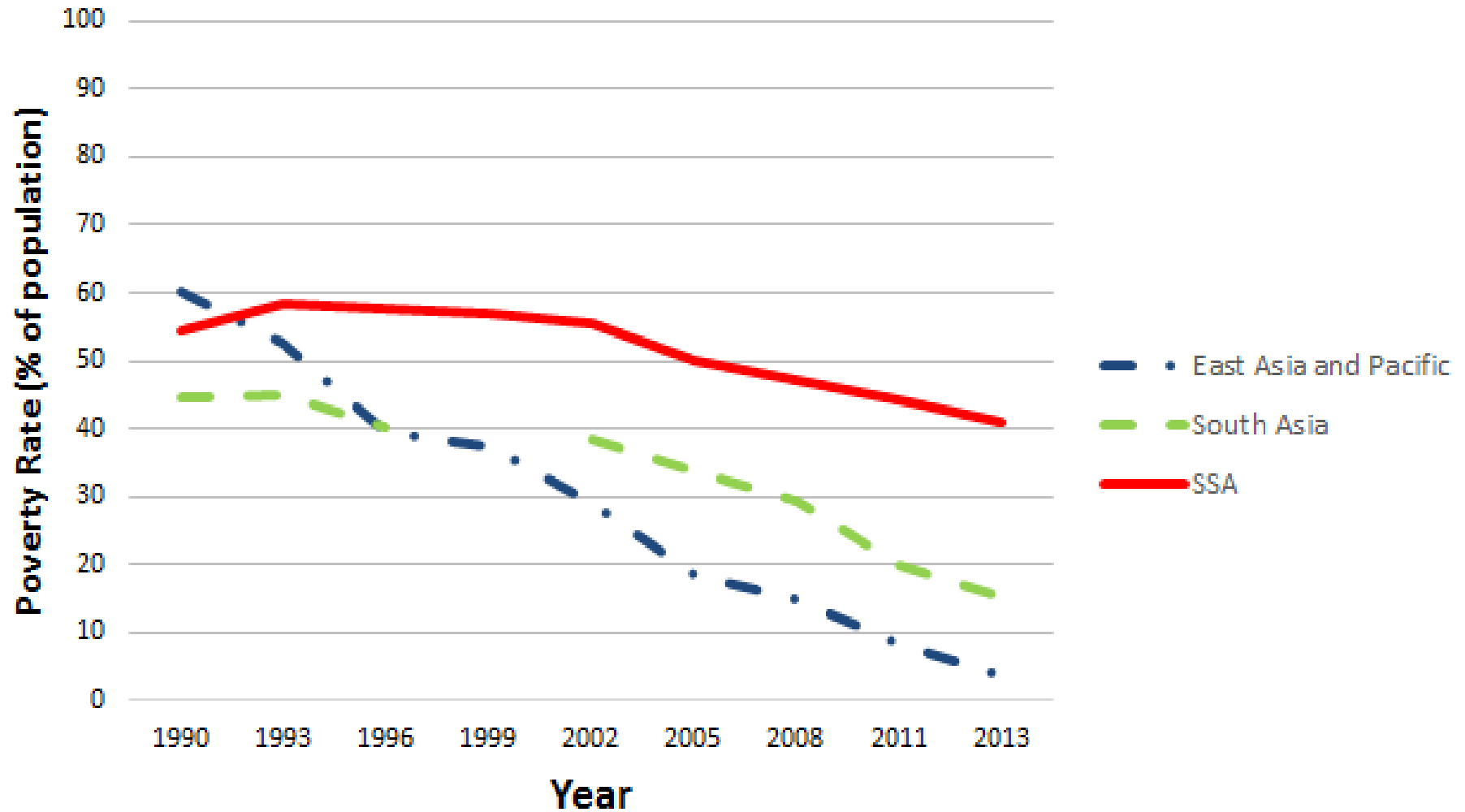


World map, area weighted by 2011 GDP



- Economic growth rates have been lower in sub-Saharan Africa than in other developing regions since 1960, but they have rebounded since around 2000 – and poverty rates have finally begun to fall.

Percent of Population living on < \$1.90 USD per day (1990-2013)



Ratio of the sum of population (ages 0–14 or 65+) / (ages 15–64)

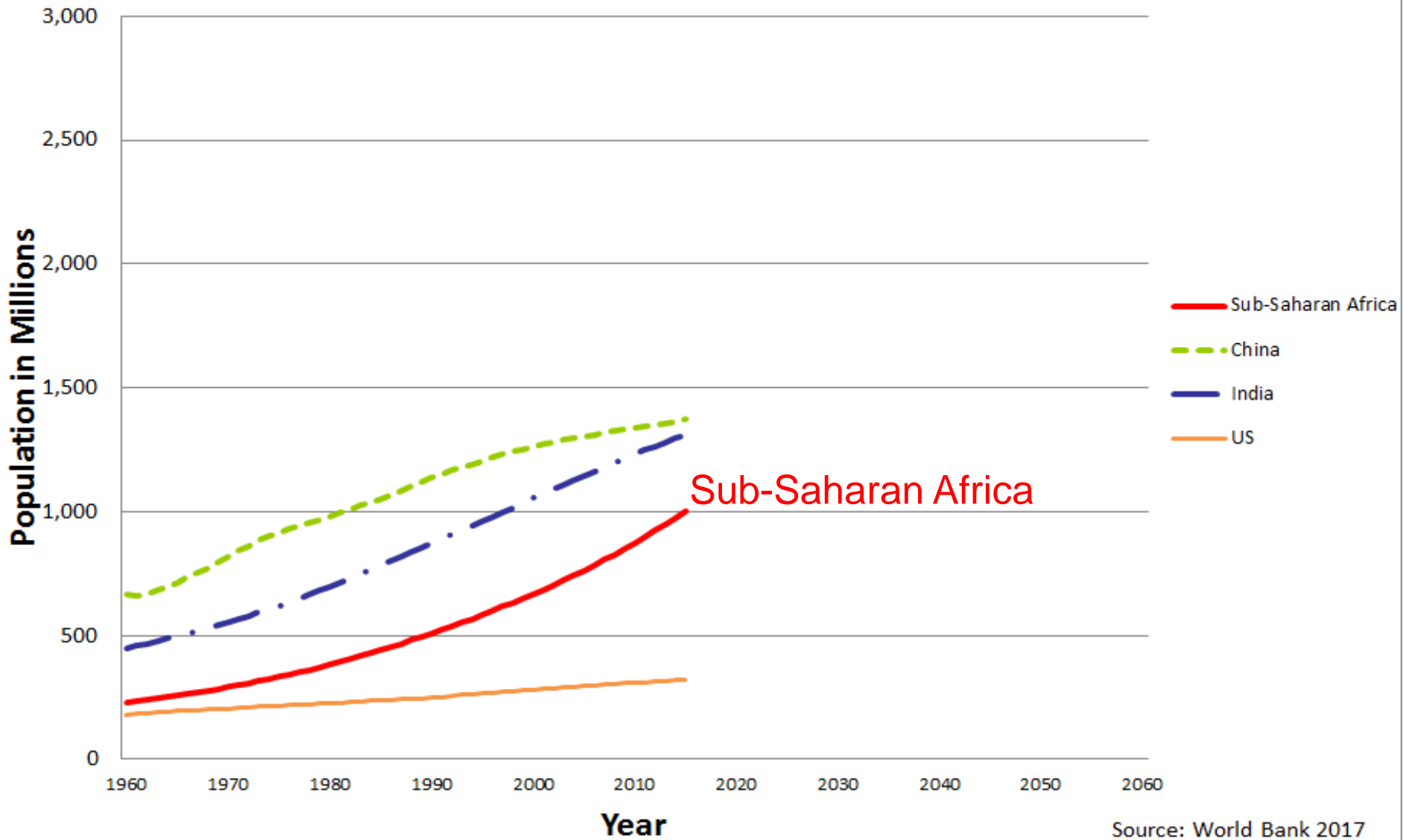


HDI rank	Population								Dependency ratio		Total fertility rate		
	Total		Average annual growth		Urban ^a	Under age 5	Ages 15–64	Ages 65 and older	Median age	(per 100 people ages 15–64)			
	(millions)		(%)		(%)		(millions)		(years)	Young age (0–14)	Old age (65 and older)	(births per woman)	
	2014 ^c	2030 ^c	2000/2005	2010/2015 ^e	2014 ^c	2014 ^c	2014 ^c	2014 ^c	2015 ^e	2015 ^e	2015 ^e	2000/2005	2010/2015 ^e
Regions													
Arab States	373.1	481.3	2.2	2.0	58.1	44.4	236.4	15.9	24.6	50.8	6.8	3.6	3.2
East Asia and the Pacific	2,051.5	2,211.9	0.8	0.8	51.8	149.5	1,456.1	166.1	33.7	29.5	11.8	1.8	1.9
Europe and Central Asia	234.9	251.0	0.4	0.7	60.9	18.8	160.1	21.3	32.2	33.4	13.4	2.0	2.0
Latin America and the Caribbean	618.0	711.1	1.3	1.1	79.8	53.6	408.3	45.6	29.0	39.4	11.4	2.5	2.2
South Asia	1,771.5	2,085.5	1.6	1.3	33.7	175.5	1,158.5	92.0	26.4	44.2	8.1	3.1	2.6
Sub-Saharan Africa	911.9	1,348.9	2.6	2.7	37.8	149.4	492.1	28.4	18.5	78.9	5.8	5.7	5.1

East Asia: median age = 34 years and fertility = 1.9/woman

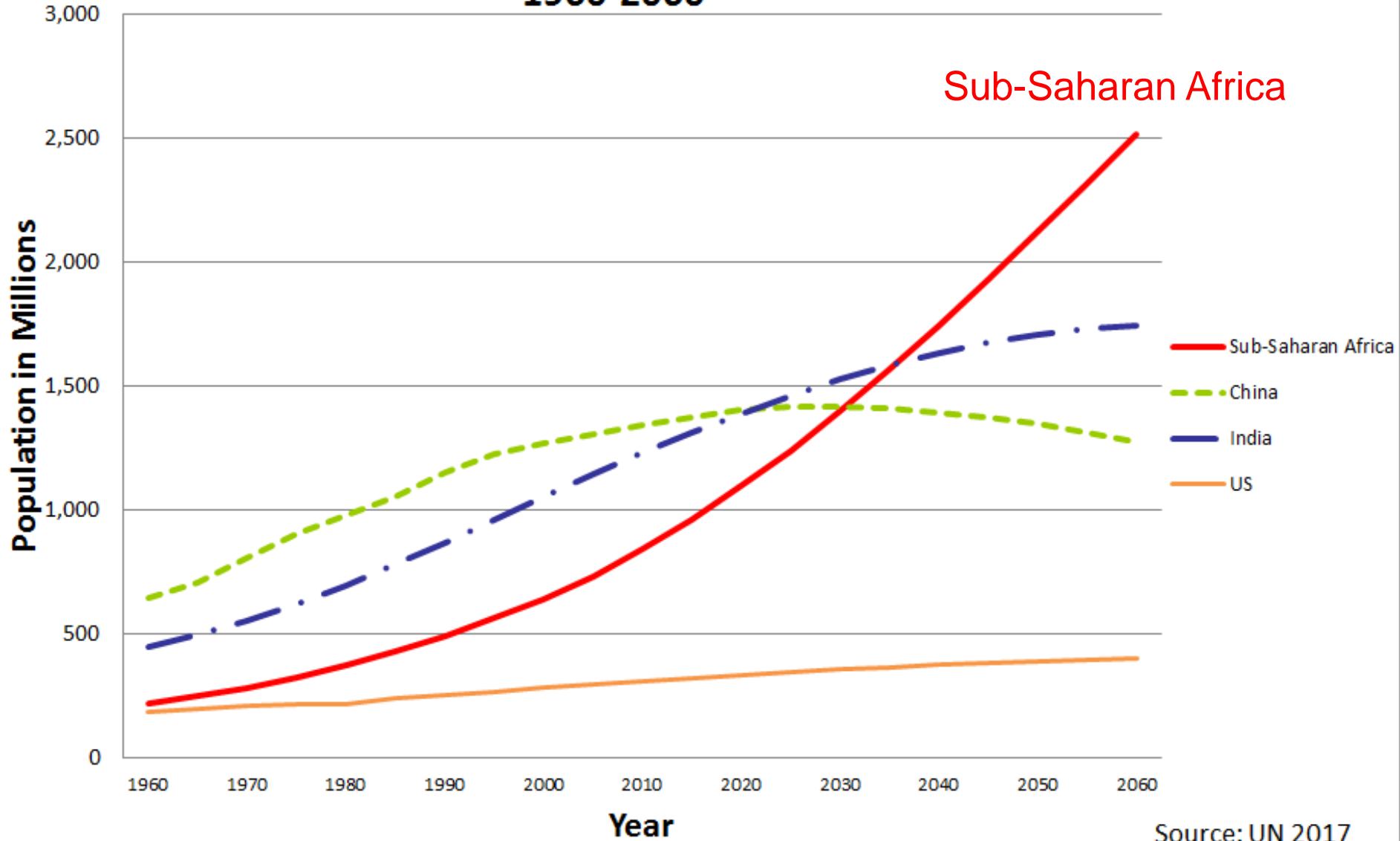
SSA: median age = 19 years and fertility = 5.1/woman

Population: Sub-Saharan Africa, China, India, & US, 1960-2015



Source: World Bank 2017

Population Trends (medium prediction), 1960-2060

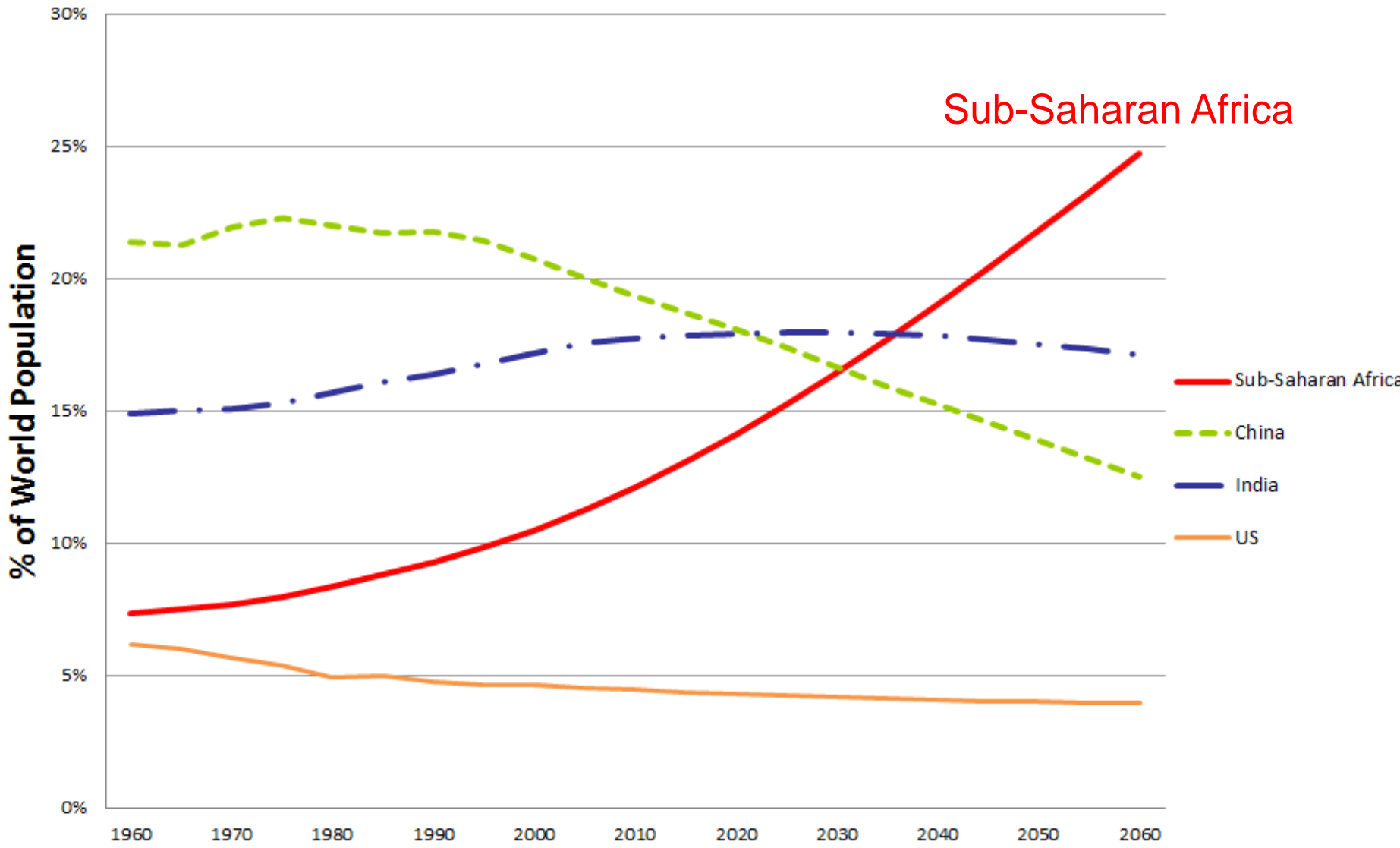


Source: UN 2017

Patterns of Global Population

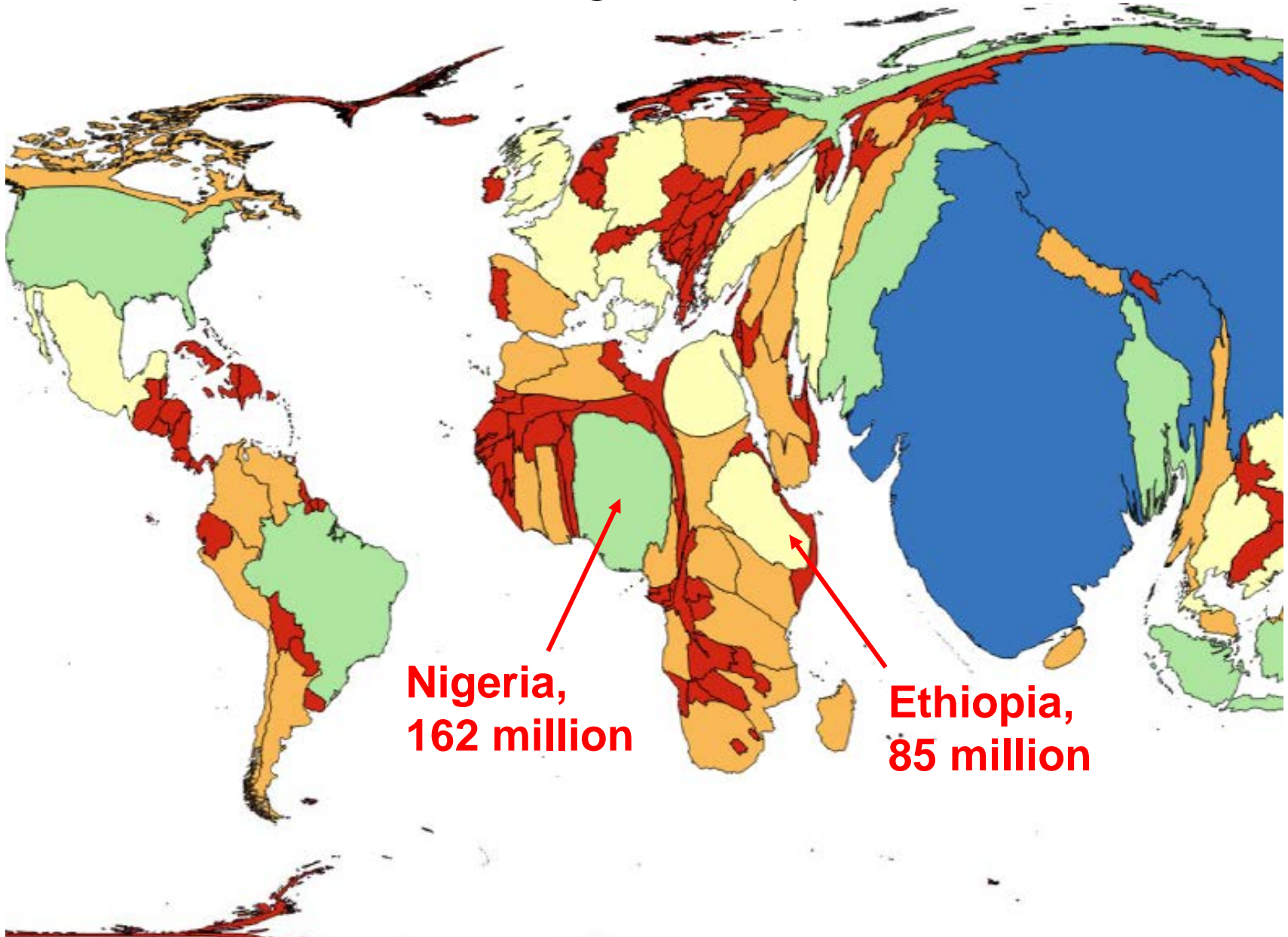
- Why study Africa?
- By around 2030 SSA is projected to pass China's population, by around 2040 India's population, and by 2050 is projected to have more than 2 billion people.

Percentage of World Population (medium prediction), 1960-2060

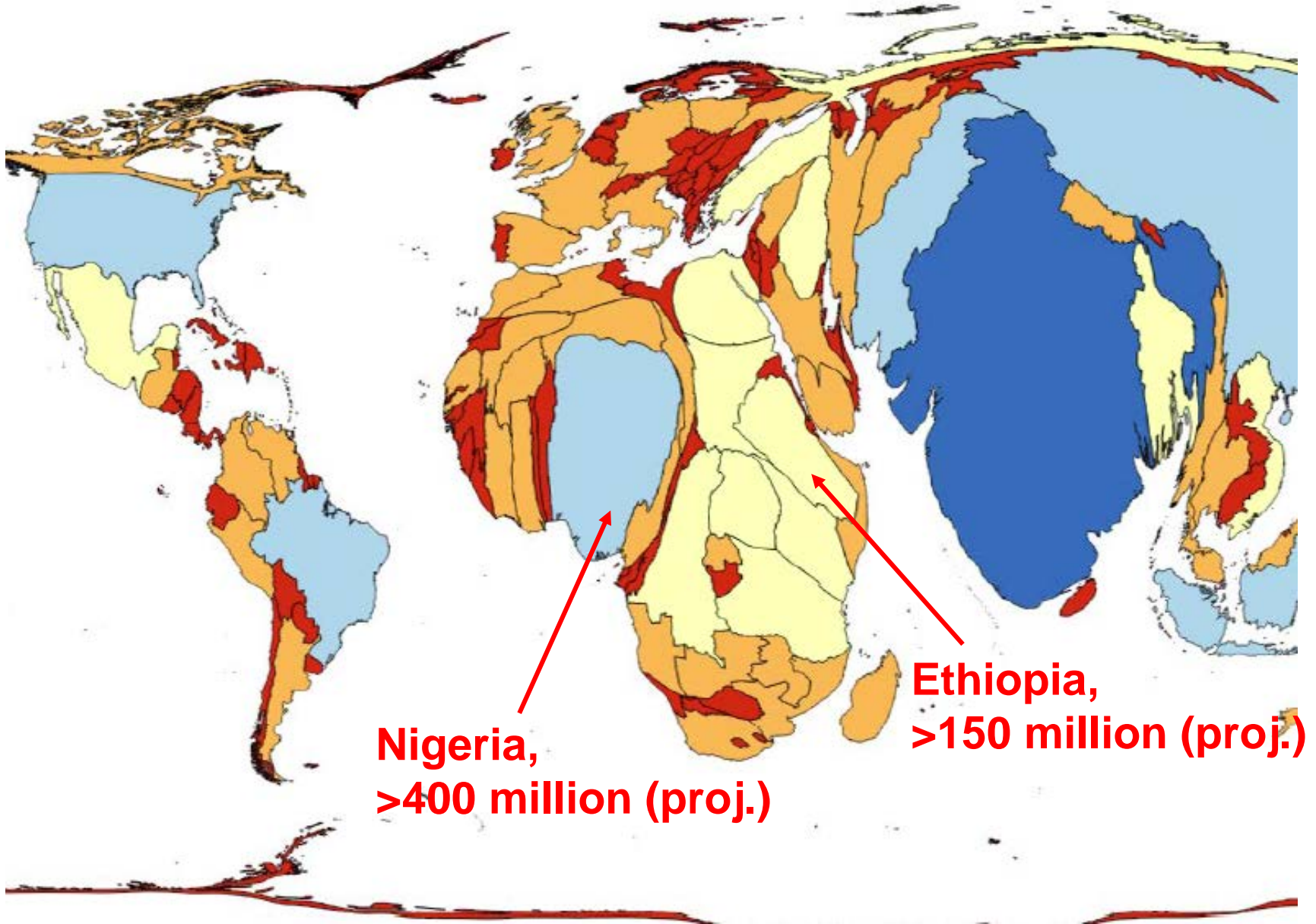


Source: UN 2017

World map, area weighted by 2011 population



World map, area weighted by 2060 population



Questions?

Long-term economic development patterns

- Sub-Saharan Africa's economic trajectory since independence has been a roller-coaster of progress and reversals.

Long-term economic development patterns

- Per capita GDP growth in Sub-Saharan Africa was positive and reasonably high from 1950-1975, at an average of 2.4% per year – similar to what South Asian countries achieved during 1975-2003
 - There was considerable variation across countries
- The manufacturing sector grew rapidly during this period: from 1960-1980, at approximately 7% per year overall – mainly in mining, food processing, textiles

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 - There was considerable variation across countries
- The manufacturing sector grew rapidly during this period: from 1960-1980, at approximately 7% per year overall – mainly in mining, food processing, textiles
 - But necessary investments in physical infrastructure often lagged behind or were not maintained (e.g., Sierra Leone railroad, Kenyan roads)

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Long-term economic development patterns

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- **Why** did African economic performance deteriorate so sharply in the 1970s?

Long-term economic development patterns

- But overall per capita GDP growth in Sub-Saharan Africa became negative after around 1975, and remained negative until about 2000
- **Why** did African economic performance deteriorate so sharply in the 1970s? Many candidate explanations
 - Oil price shocks and global recession in the 1970s
 - Widespread drought in the late 1970s, early 1980s
 - Debt, which could not be paid off once growth fell
 - Other factors? Stay tuned...

Positive trends: human resource gains

- Education was a top priority of many independence leaders – and African populations
- Most African countries have shown strong increases in literacy since independence in the 1960s: primary school enrollment in 1960 was 43%, rising to 77% in 1997 and to near universal levels in many countries since then
 - Secondary enrollment has also grown massively

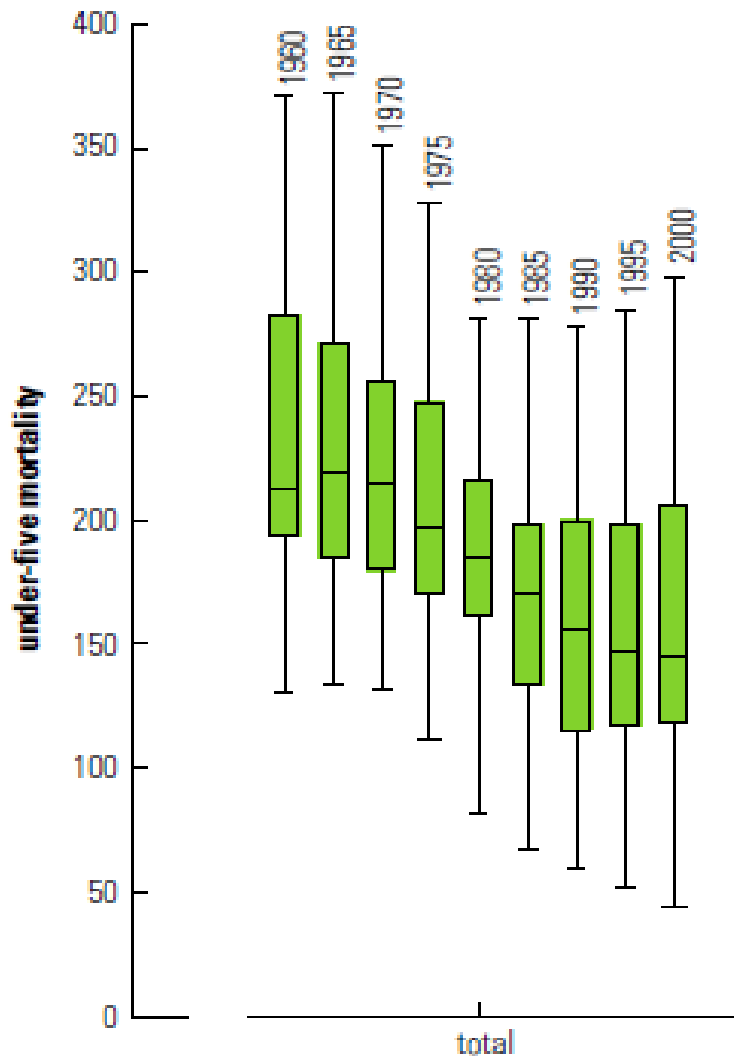
Positive trends: human resource gains

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- Most African countries have shown strong increases in literacy since independence in the 1960s: primary school enrollment in 1960 was 43%, rising to 77% in 1997 and to near universal levels in many countries since then
 - Secondary enrollment has also grown massively
- Unfortunately, school quality remains low: class sizes are large, teacher absenteeism is a widespread problem, and school supplies are scarce for most students

Positive trends: human resource gains

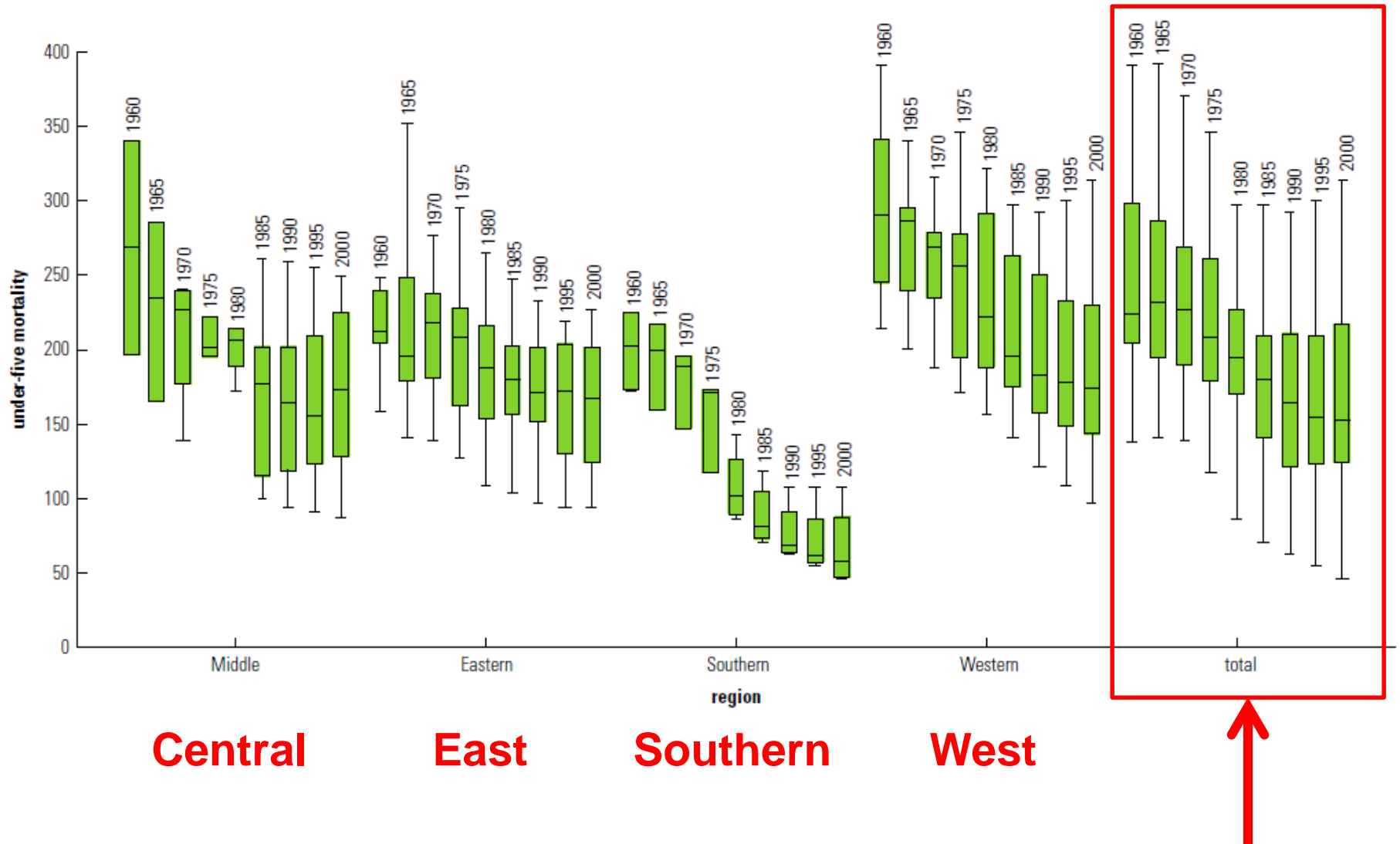
- Some health measures have shown dramatic improvements since the 1950s, especially infant mortality rates (IMR) for children under age 1 year and under 5 child mortality rates (CHMR)

Figure 3.3 Trends in Under-Five Mortality, by Five-Year Period and Region, 1960–2000
(per 1,000 births)



Considerable progress during 1960-2000: Under-Five Mortality fell from roughly 250 to 150 per 1000 live births.

Figure 3.3 Trends in Under-Five Mortality, by Five-Year Period and Region, 1960–2000
(per 1,000 births)



Central

East

Southern

West

Member State	Total population ^a (000s)	Male	Female	Both sexes	Healthy life expectancy at birth ^{a,b} (years)	Maternal mortality ratio ^c (per 100 000 live births)	Proportion of births attended by skilled health personnel ^d (%)	Under-five mortality rate ^e (per 1000 live births)	Neonatal mortality rate ^e (per 1000 live births)
	2015	2015			2015	2015	2006–2014	2015	2015

WHO region

African Region	989 173	58.2	61.7	60.0	52.3	542	54	81.3	28.0
Region of the Americas	986 705	74.0	79.9	77.0	67.3	52	96	14.7	7.7
South-East Asia Region	1 928 174	67.3	70.7	68.9	60.5	164	59	42.5	24.3
European Region	910 053	73.2	80.2	76.8	68.0	16	99	11.3	6.0
Eastern Mediterranean Region	643 784	67.4	70.4	68.8	60.1	166	67	52.0	26.6
Western Pacific Region	1 855 126	74.5	78.7	76.6	68.7	41	95	13.5	6.7

Under-Five mortality has continued to fall rapidly, down to 81 per 1000 births (2015)

Positive trends: human resource gains

- Some health measures have shown dramatic improvements since the 1950s, especially infant mortality rates (IMR) for children under age 1 year and under 5 child mortality rates (CHMR)
- However, many of these health gains also slowed in the 1980s, likely in part due to the HIV/AIDS epidemic, and CHMR remains high
- In general public health systems remain underfunded, given the health burdens they need to deal with – HIV/AIDS, malaria, TB, cholera, worms, etc. ...

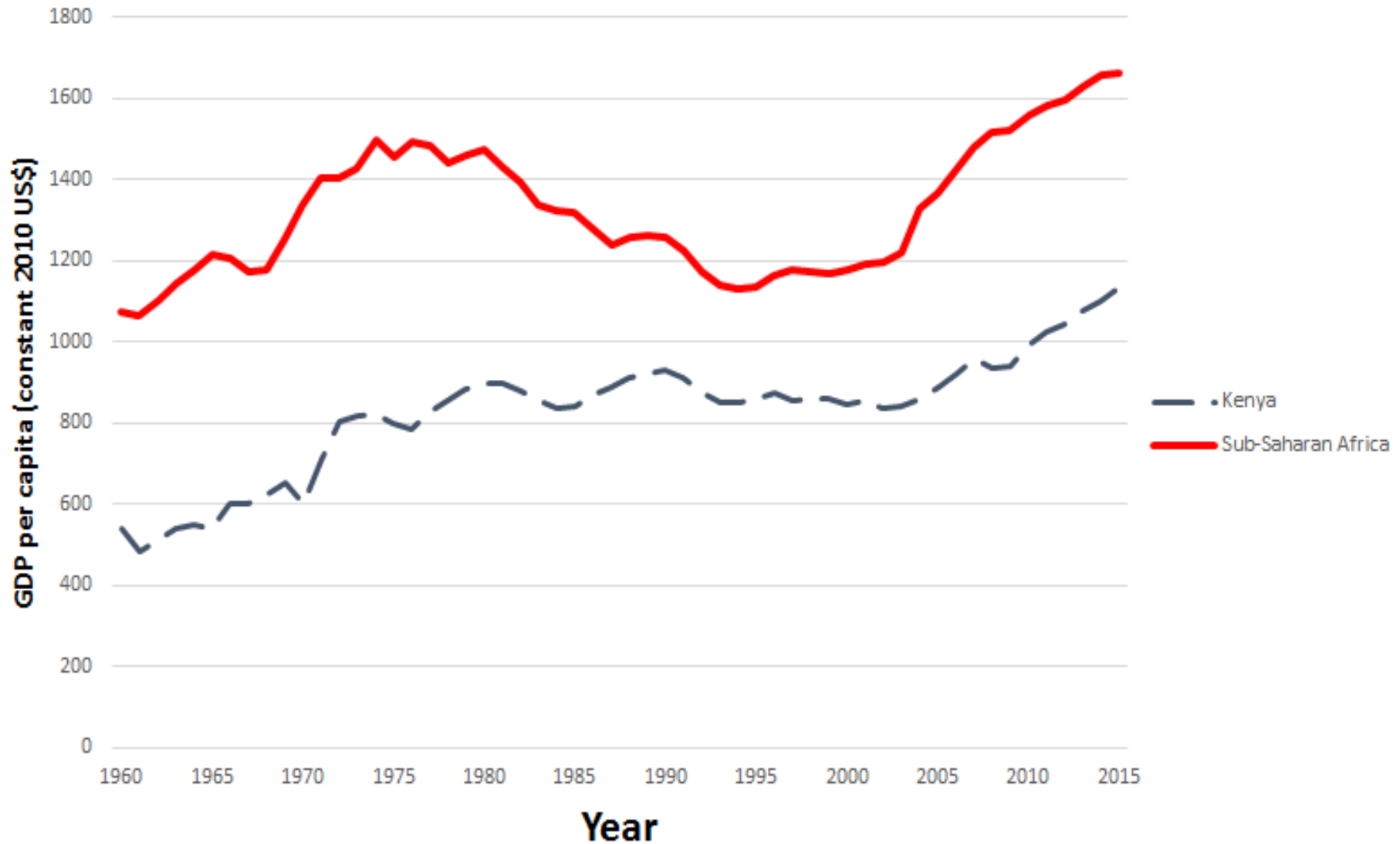
Africa: recent numbers

- By 2000, Sub-Saharan Africa was coming off a terrible quarter century of economic development
 - In the late 1970s, China and India were at similar levels of development but pulled away in the 1980s
 - African per capita incomes fell 18% during 1975-2003; Kenya's experience largely mirrors Africa as a whole
- But average per capita growth in Sub-Saharan Africa from 2000-2015 was roughly 3% per year
 - The two largest economies, South Africa and Nigeria, also had positive per capita growth

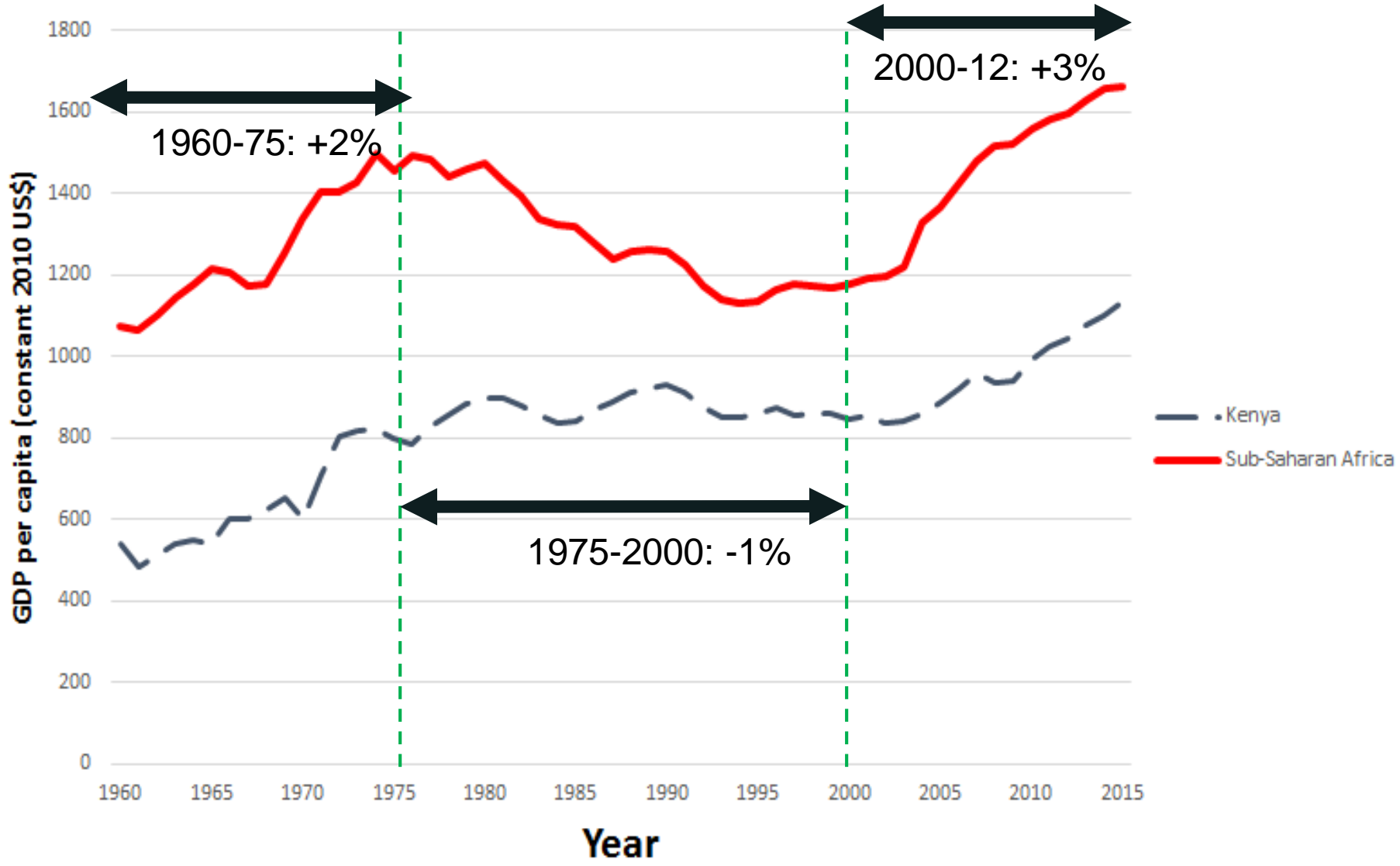
Understanding African economic performance

- **Three relevant questions** for us this term:
- Why was African economic performance (relatively) strong in the 1960s and early 1970s?
- Why did African economic performance deteriorate so sharply from 1975-2000?
- What happened since 2000 to turn things around?

GDP per capita Sub-Saharan Africa and Kenya (1960-2015)



GDP per capita Sub-Saharan Africa and Kenya (1960-2015)



Understanding African economic performance

- **Kenya** illustrates Africa's historical ups and downs – and the ambiguity of the recent economic turnaround



The view from Kenya: the role of politics

- From 2002-2007, Kenya's economy had experienced its fastest growth in three decades
 - Successful sectors: tea, coffee, flowers (same-day exports to Europe), tourism, telecommunications
 - Stable macroeconomic climate, foreign investment
- Kenya's rigged December 2007 elections set off months of violent protests, ethnic cleansing, political instability
- The economy has since returned to rapid growth – and the more recent 2013 national elections were relatively peaceful.

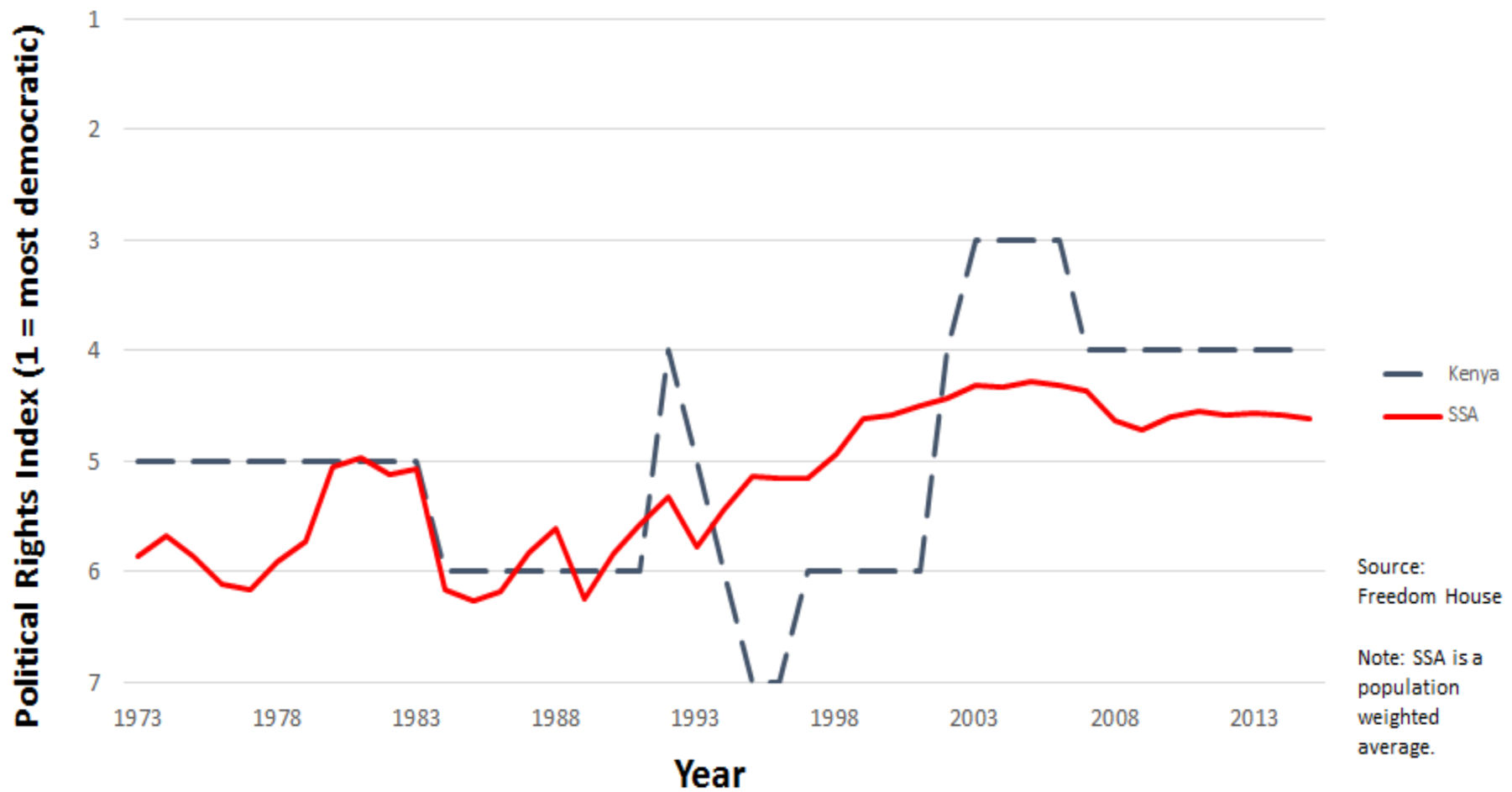
Another positive trend: Africa's democratic era

- What are the causes of the recent economic turnaround? In particular, how much can be attributed to internal policy reform and institutional change?

Another positive trend: Africa's democratic era

- What are the causes of the recent economic turnaround? In particular, how much can be attributed to internal policy reform and institutional change?
- **Democratic reforms** are potentially important
 - There are good reasons to think democratic accountability could improve public policy (e.g., less corruption, more education spending, less inflation)
 - In India, Amartya Sen (1981) has argued that democratic institutions improved the government's famine responsiveness
- Or has the democratic opening simply fueled instability?

Political Rights: Sub-Saharan Africa and Kenya (1973-2015)



Another positive trend: Africa's democratic era

- From 1990 to 2010, the average African “Freedom House” score increased from 6 to 4.5 (7 point scale)
 - What does this mean in practice? By 2015 the majority of African countries had held competitive **multi-party elections**, and many had free private media

Another positive trend: Africa's democratic era

- From 1990 to 2010, the average African “Freedom House” score increased from 6 to 4.5 (7 point scale)
 - What does this mean in practice? By 2015 the majority of African countries had held competitive **multi-party elections**, and many had free private media
 - According to Radelet (2010), democratic reforms largely **preceded** the economic turnaround, and the countries that democratized most have had the best economic performance.
 - Education investments (including **universal primary education**) and economic policy choices have both improved in many African countries since the 1990s

Another positive trend: Africa's democratic era

- Kenya again illustrates the trend, going from one-party dictatorship in 1995 (the lowest score, a 7) to a functioning – if imperfect – multi-party democracy
 - Kenya's democratic credentials took a hit following the “stolen” 2007 election.
 - Yet the Opposition did manage to win control of parliament in 2007, and many of the recent gains – the freer press, stronger civil society – have been sustained through the 2013 elections.

Africa: Moving Forward or Looking Back?

- The period since 2000 shows what's possible in Africa. But the foundations appear quite fragile even for relative success stories like Kenya.
 - Glass half empty or half full?
 - How can economic theory help us understand the process of economic and political change in Africa?
- Turn to the **neoclassical economic growth** framework.
Key issues: (i) inputs into production, (ii) the technology of production, (iii) international economic conditions

Whiteboard #1