

Economics 172
Issues in African Economic Development

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Issues in African Economic Development

Lecture 2 – January 18, 2007

Lecture 2: Introduction to Economics 172

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- Prerequisites: At least one term of intermediate economics and some prior coursework in statistics
- Grading: Three problem sets – 30%
Midterm exam – 30%
Final exam – 40%
- Course structure:
Part I: Economic Theories and Methods
Part II: History, Politics, and Institutions
- Reading packets should be at Bancroft Copy Central by week's end

African Economic Development Over Time

- Of the world's four major less developed regions, Sub-Saharan Africa has had by far the worst economic performance since 1975
- The first goal of this lecture is characterize African development patterns over a broader period

HDI rank	GDP						Annual growth rate	
	PPP US\$		GDP per capita		1975–2003		1990–2003	
	US\$ billions	billions	US\$	PPP US\$				
2003	2003	2003	2003	1975–2003	1990–2003			
Developing countries	6,981.9 T	21,525.4 T	1,414	4,359	2.3	2.9		
Least developed countries	221.4 T	895.1 T	329	1,328	0.7	2.0		
Arab States	773.4 T	1,683.6 T	2,611	5,685	0.2	1.0		
East Asia and the Pacific	2,893.6 T	9,762.2 T	1,512	5,100	6.0	5.6		
Latin America and the Caribbean	1,745.9 T	3,947.0 T	3,275	7,404	0.6	1.1		
South Asia	902.2 T	4,235.9 T	617	2,897	2.6	3.5		
Sub-Saharan Africa	418.5 T	1,227.4 T	633	1,856	-0.7	0.1		
Central and Eastern Europe and the CIS	1,189.9 T	3,203.5 T	2,949	7,939	..	0.3		
OECD	29,650.5 T	29,840.6 T	25,750	25,915	2.0	1.8		
High-income OECD	28,369.5 T	27,601.9 T	31,020	30,181	2.2	1.9		

Cooper (2002) on African development

- Cooper (2002) is an overview of many of the themes that we will focus on in this course
- What has African economic development performance looked like since 1950? (the post World War II period)

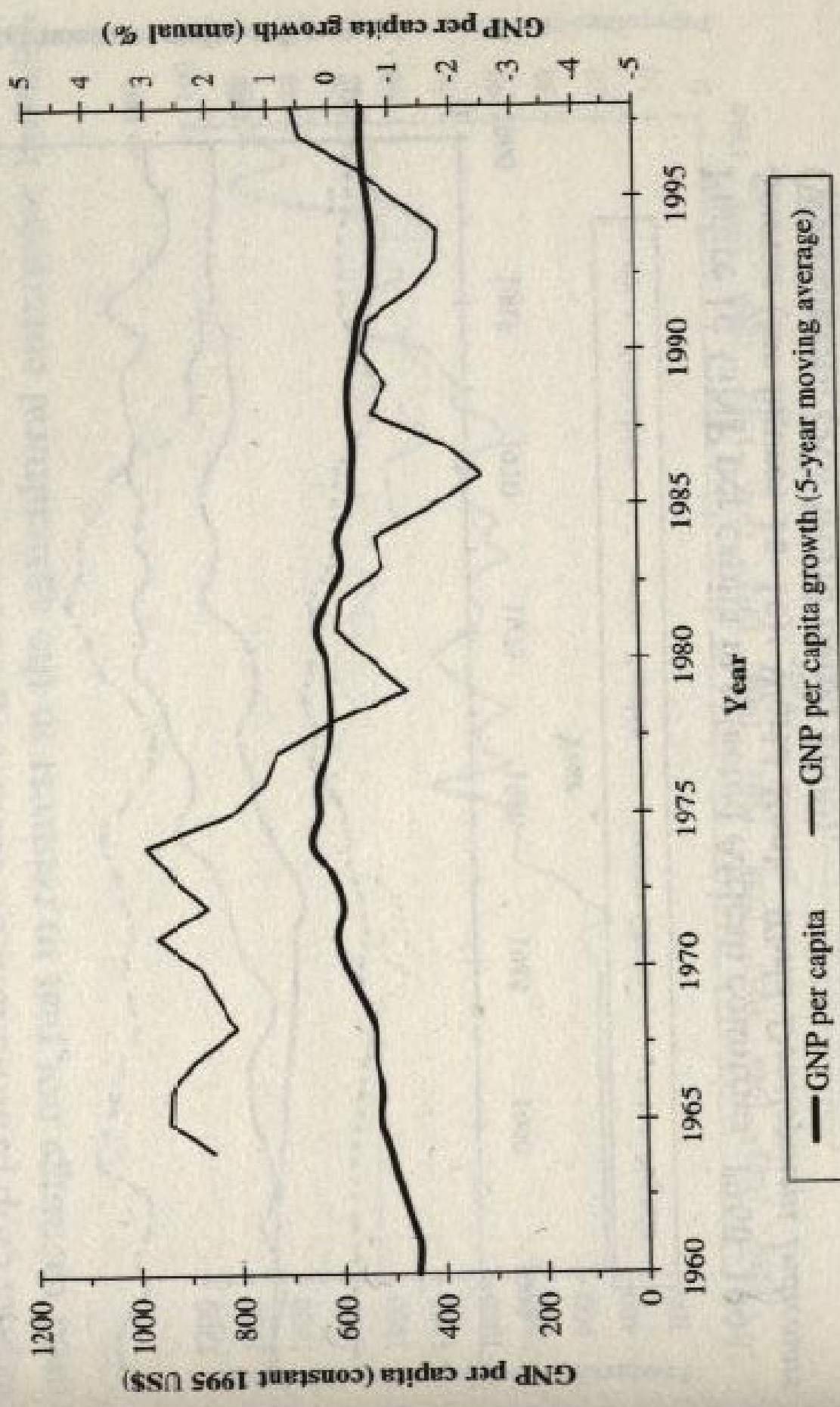


Figure 1a GNP per capita and GNP per capita growth in Sub-Saharan Africa, 1960–1998.

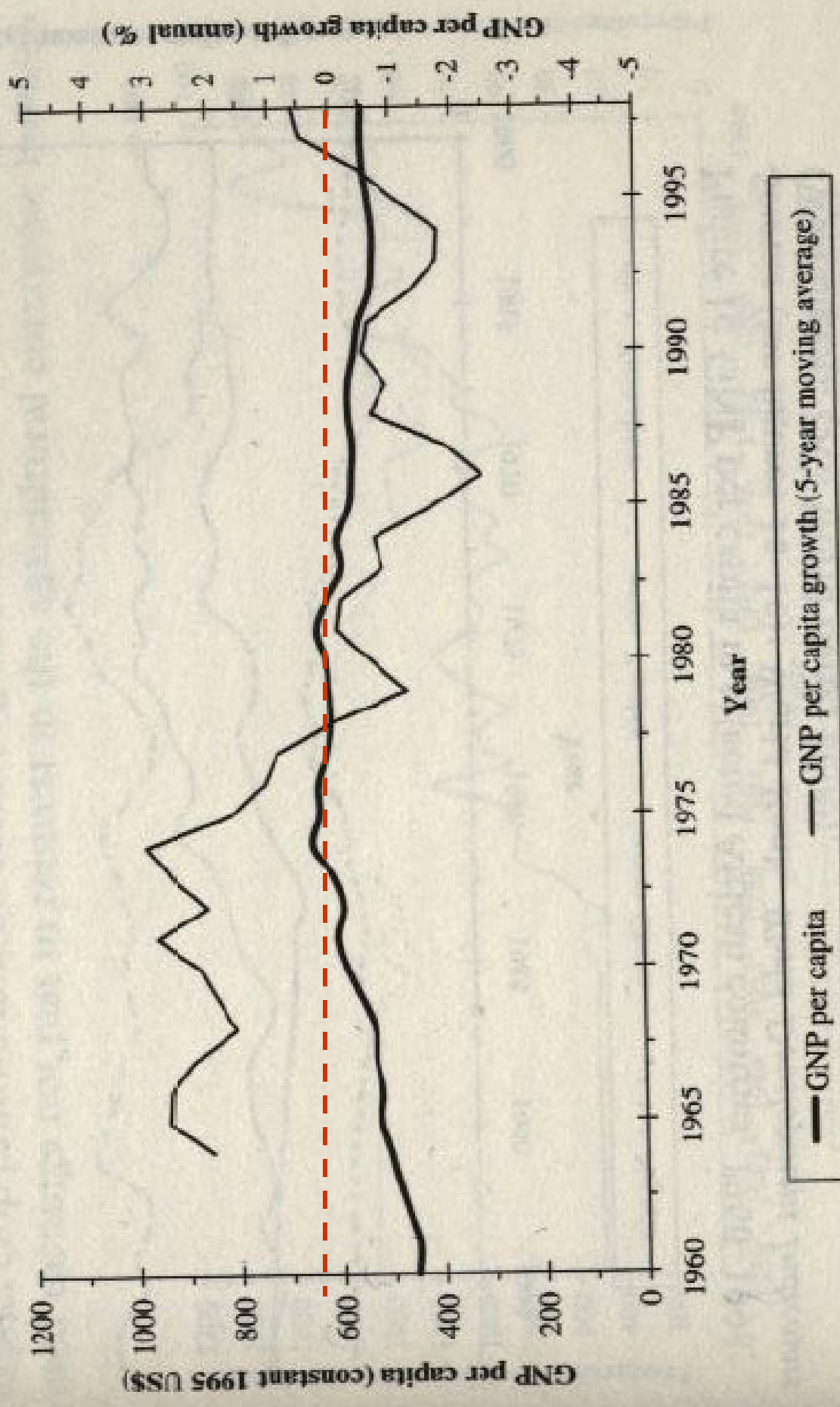


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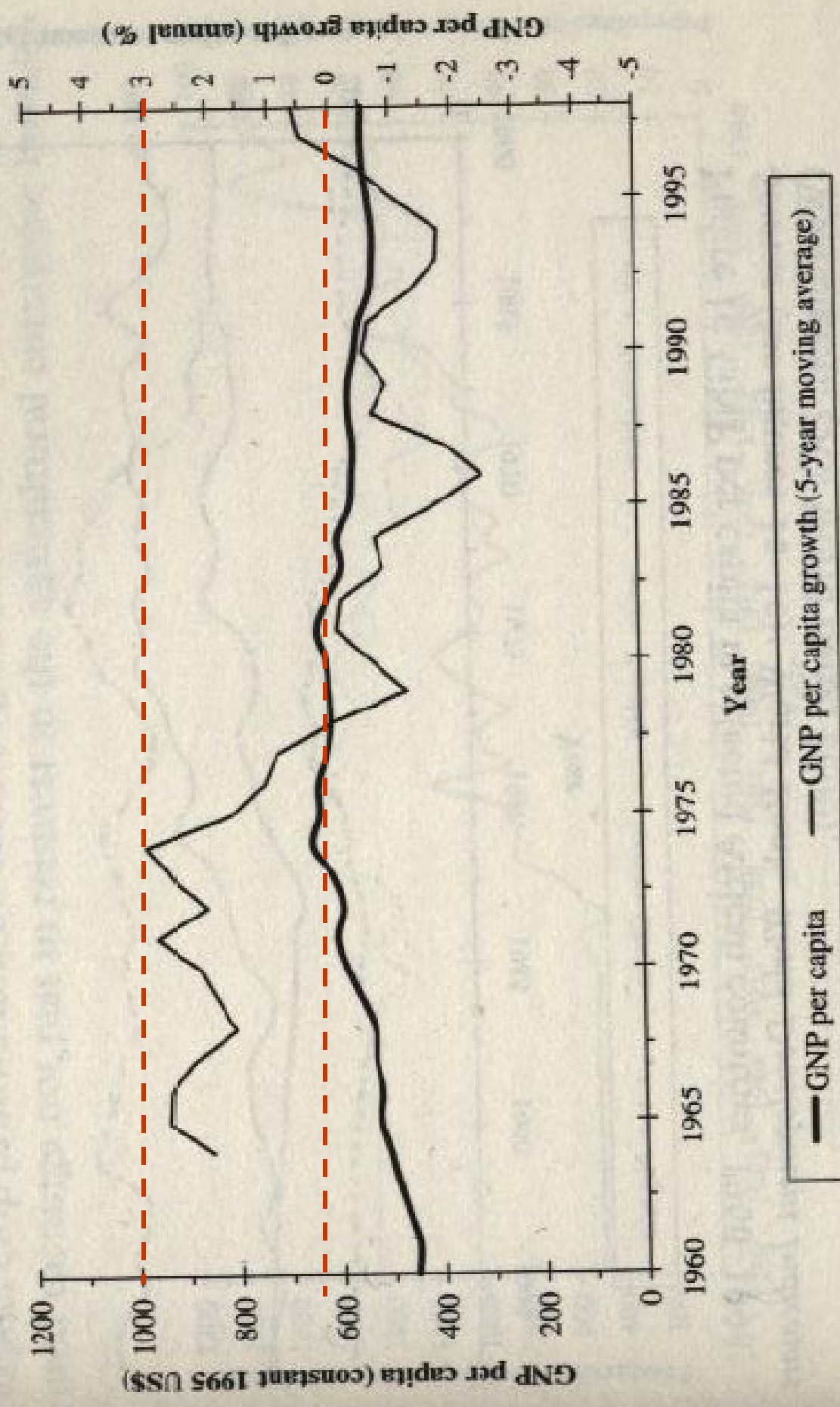


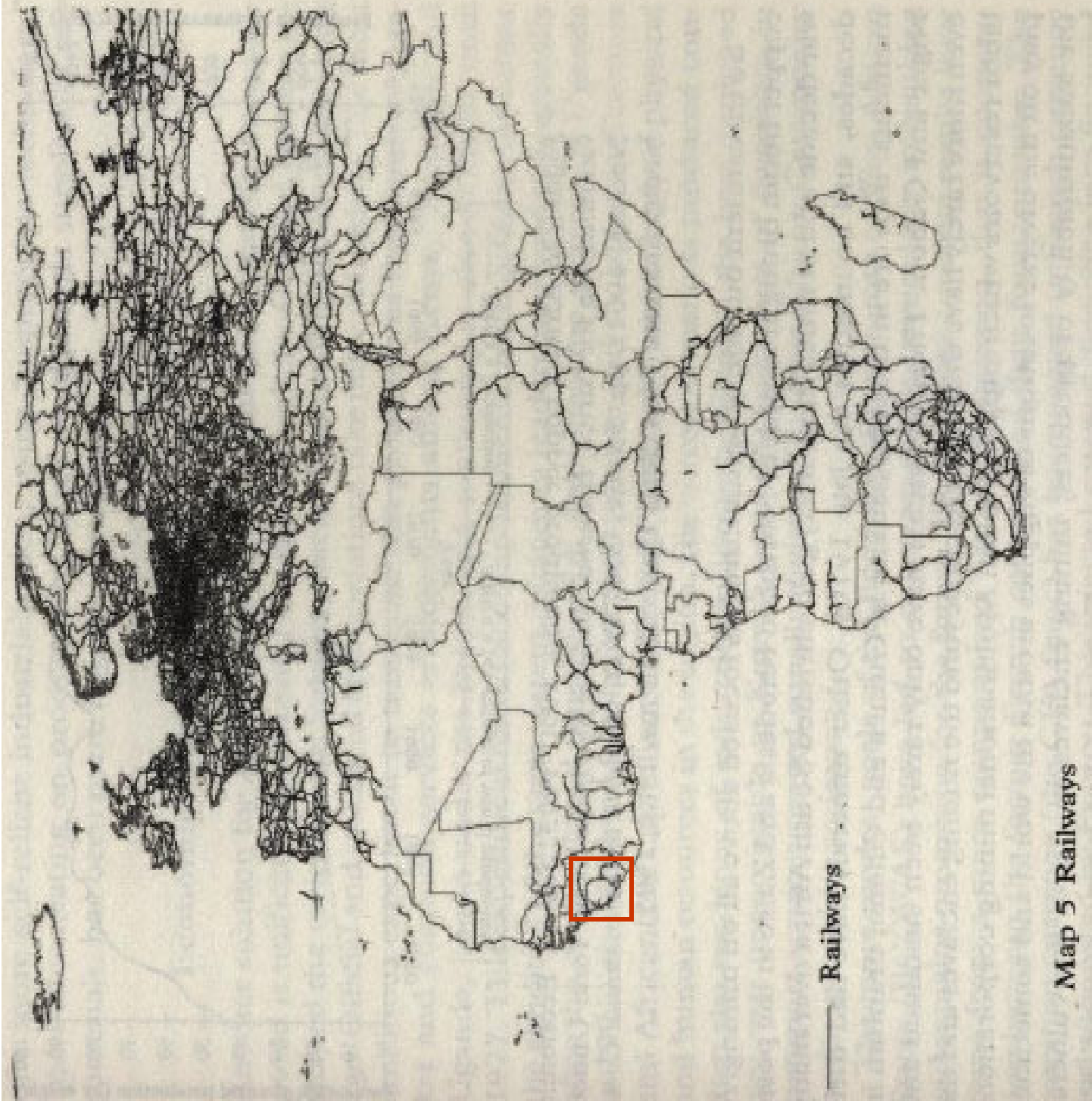
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Long-term economic development patterns

- 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 South Asian countries 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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- The manufacturing sector grew rapidly during this period: from 1960-1980, at approximately 7% per year overall – mainly in mining, food processing, textiles
 - Necessary investments in physical infrastructure often lagged behind or were not maintained (e.g., Sierra Leone railroad)



Map 5 Railways

Long-term economic development patterns

- But overall per capita GDP growth in Sub-Saharan Africa became negative after around 1975, and has remained negative ever since (until the past five years or so)

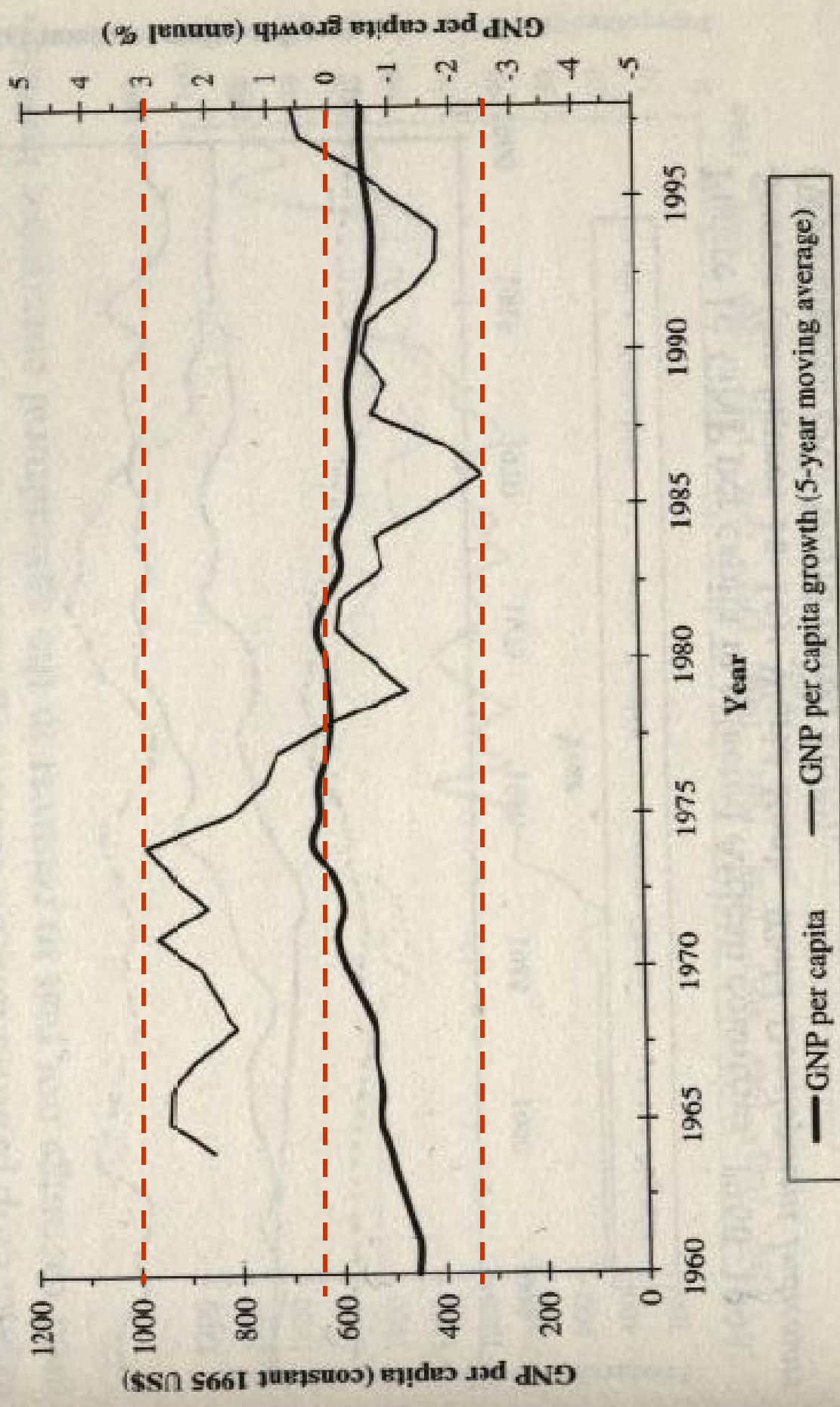


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Long-term economic development patterns

- But overall per capita GDP growth in Sub-Saharan Africa became negative after around 1975, and has remained negative ever since (until the past five years or so)
- Why did African economic performance deteriorate so sharply in the 1970s? Many candidate explanations
 - The oil price shocks of the 1970s
 - Widespread drought in the late 1970s, early 1980s
 - Massive debt accumulation, which could not be paid off once growth fell sharply
 - Other factors? Stay tuned...

Human resource development patterns

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

Table 2 Literacy rates in selected African countries, c.1960-1998 (percentage of males and females aged 15 and above)

Country	c.1960 ^a		1970		1980		1990		1998	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Congo/Zaire	49	14	35	11	48	21	62	34	71	47
Côte d'Ivoire	8	2	25	6	34	13	44	24	53	36
Ghana			43	17	58	31	70	47	79	60
Kenya	30	10	56	26	70	43	81	61	88	74
Nigeria	25	6	31	10	45	22	60	38	70	53
Senegal	10	1	23	6	31	12	38	19	45	26
South Africa	41	40	72	68	78	75	82	80	85	84
Uganda	44	26	51	22	61	31	69	43	76	54
Zambia	53	30	64	32	72	47	79	59	84	69
Zimbabwe	48	31	66	49	78	62	87	75	92	83

^aAll are 1962 except Senegal 1961, South Africa 1960, Zambia 1963.

Sources: World Bank, *World Development Indicators* (Washington, DC: World Bank, 2000); United Nations, *Demographic Yearbook* (New York: United Nations, 1960, 1963, 1964, 1970); United Nations Educational, Scientific and Cultural Organization (UNESCO), *Statistical Yearbook* (Paris: UNESCO Publishing, 1980), pp. 44-46.

Human resource development patterns

- Education was a top priority of many independence leaders and populations
- Most African countries have shown strong increases in schooling and literacy since independence in the early 1960s: primary school enrollment in 1960 was 43%, rising to 77% in 1997
 - Secondary enrollment has also grown massively
- Unfortunately class sizes remain very large, teacher absenteeism is a widespread problem, and school supplies are scarce for most students

Human resource development patterns

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

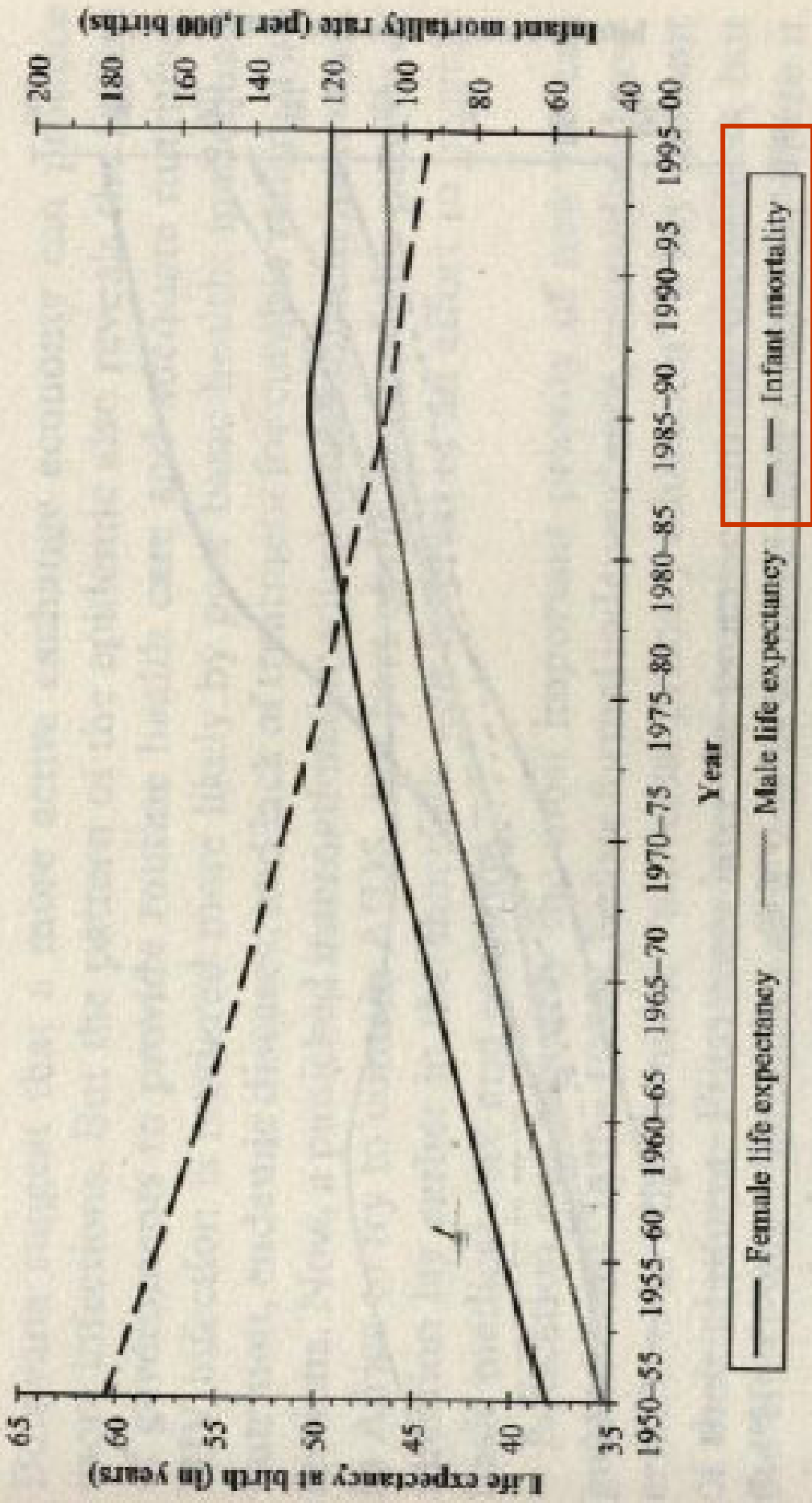


Figure 5a Life expectancy at birth and infant mortality rate in Sub-Saharan Africa, 1950-2000

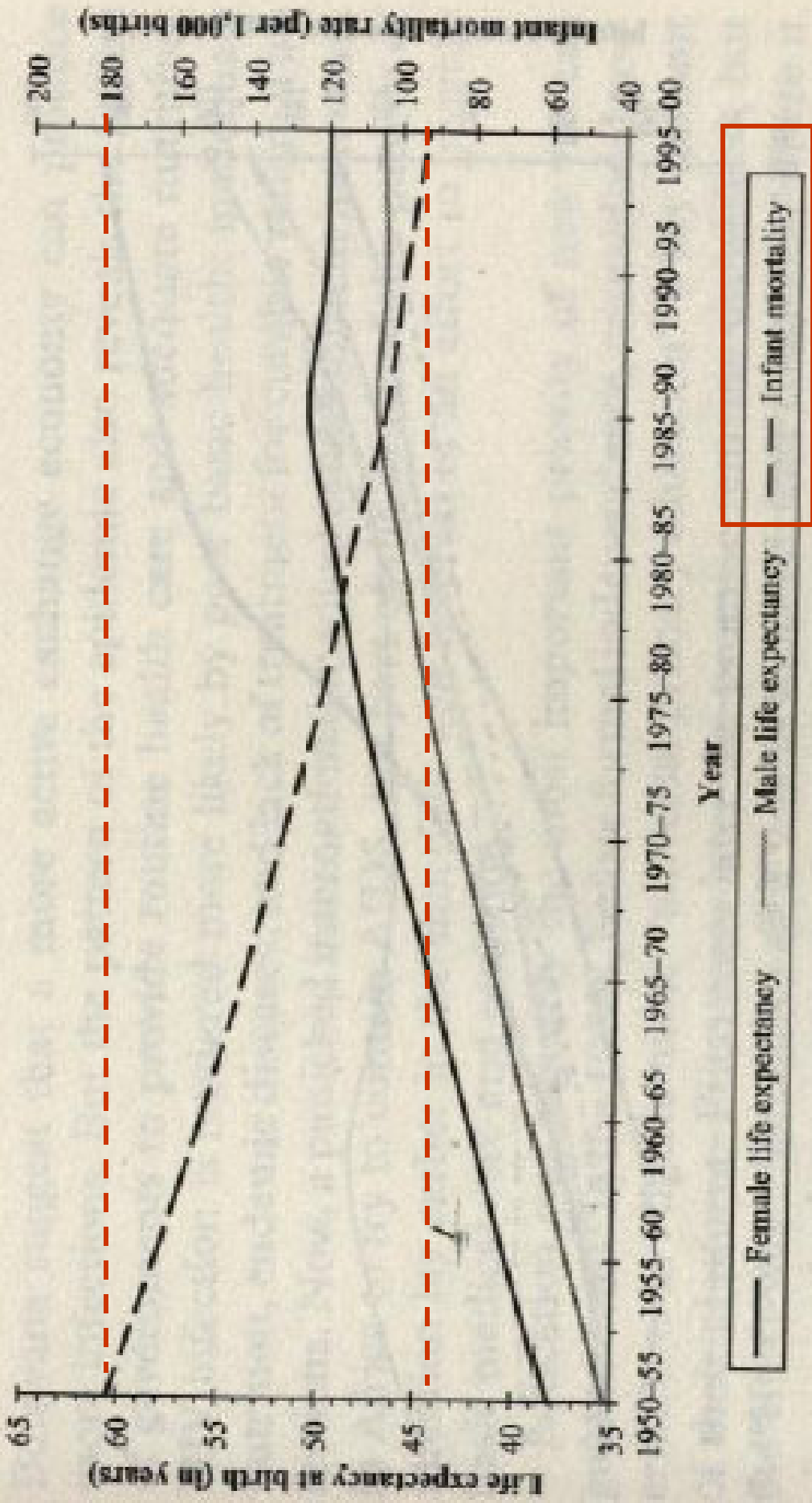


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Human resource development patterns

- Some health measures have shown dramatic improvements since the 1950s, especially infant mortality rates (IMR) for children under age 1 year
- However, many of these health gains are being undone by the HIV/AIDS epidemic, particularly in East and Southern African countries
- In general public health systems remain terribly underfunded, given the health burdens they need to deal with – HIV/AIDS, malaria, TB, cholera, worms, etc. ...

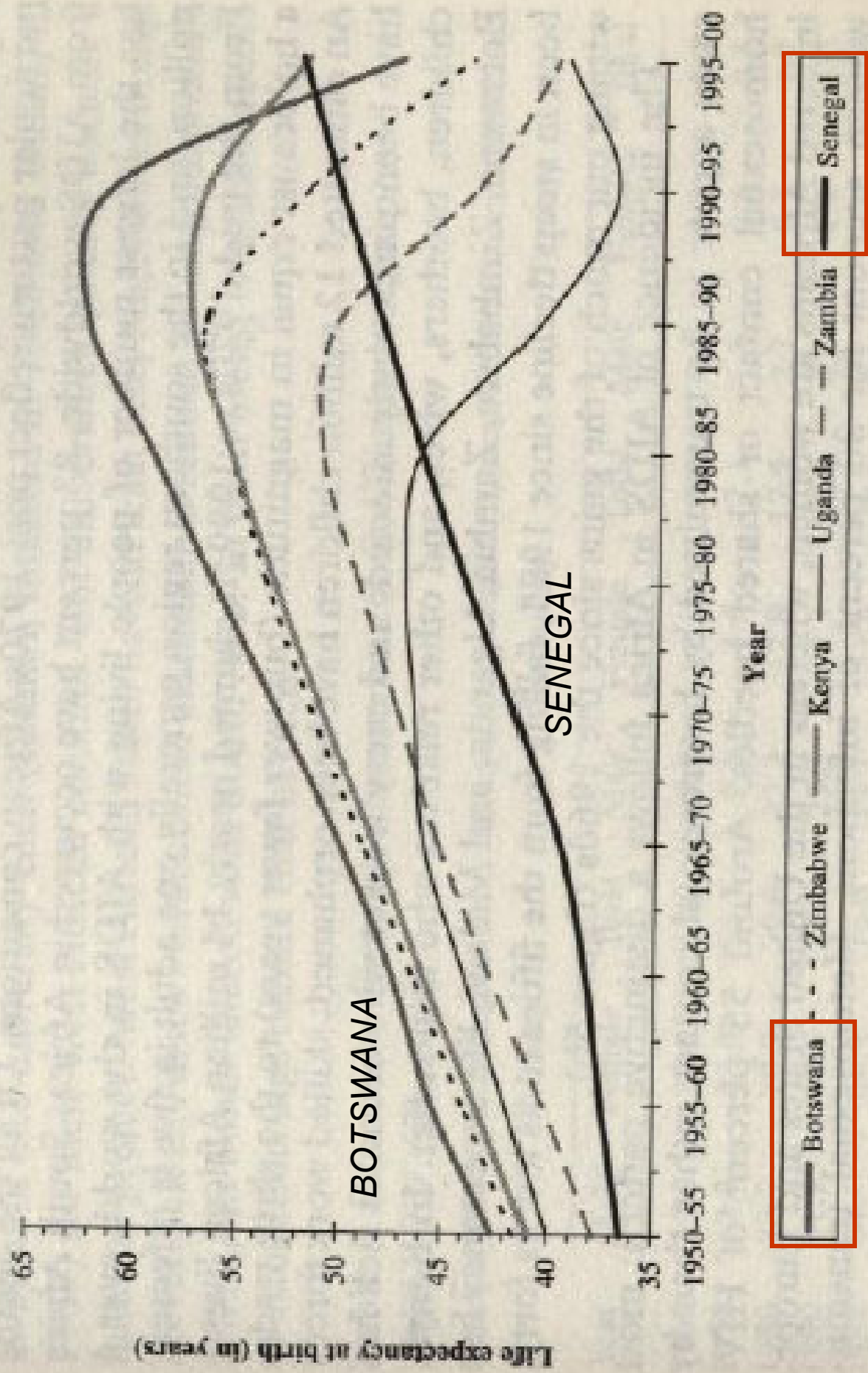
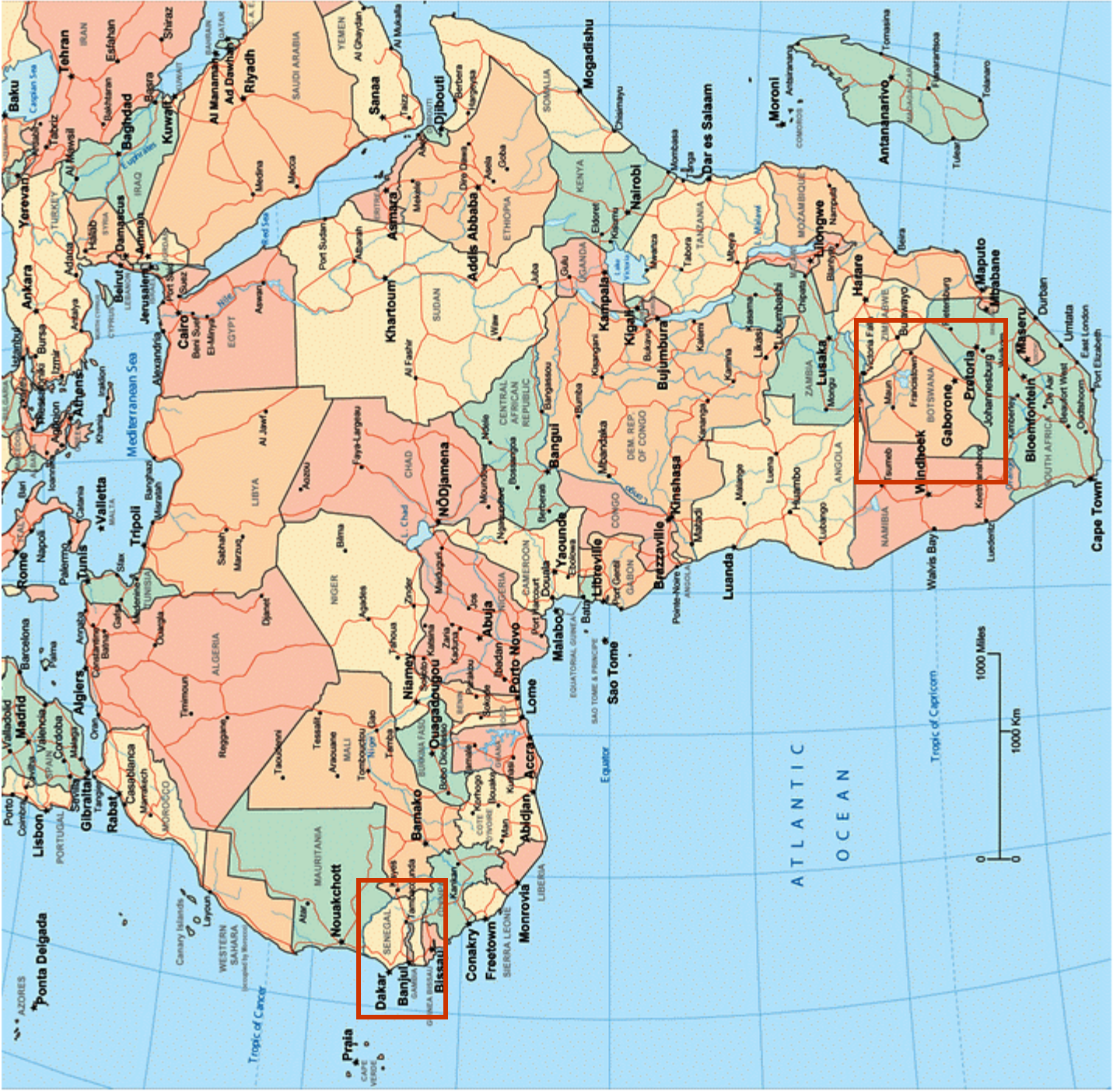


Figure 5b Life expectancy at birth in selected African countries, 1950-2000



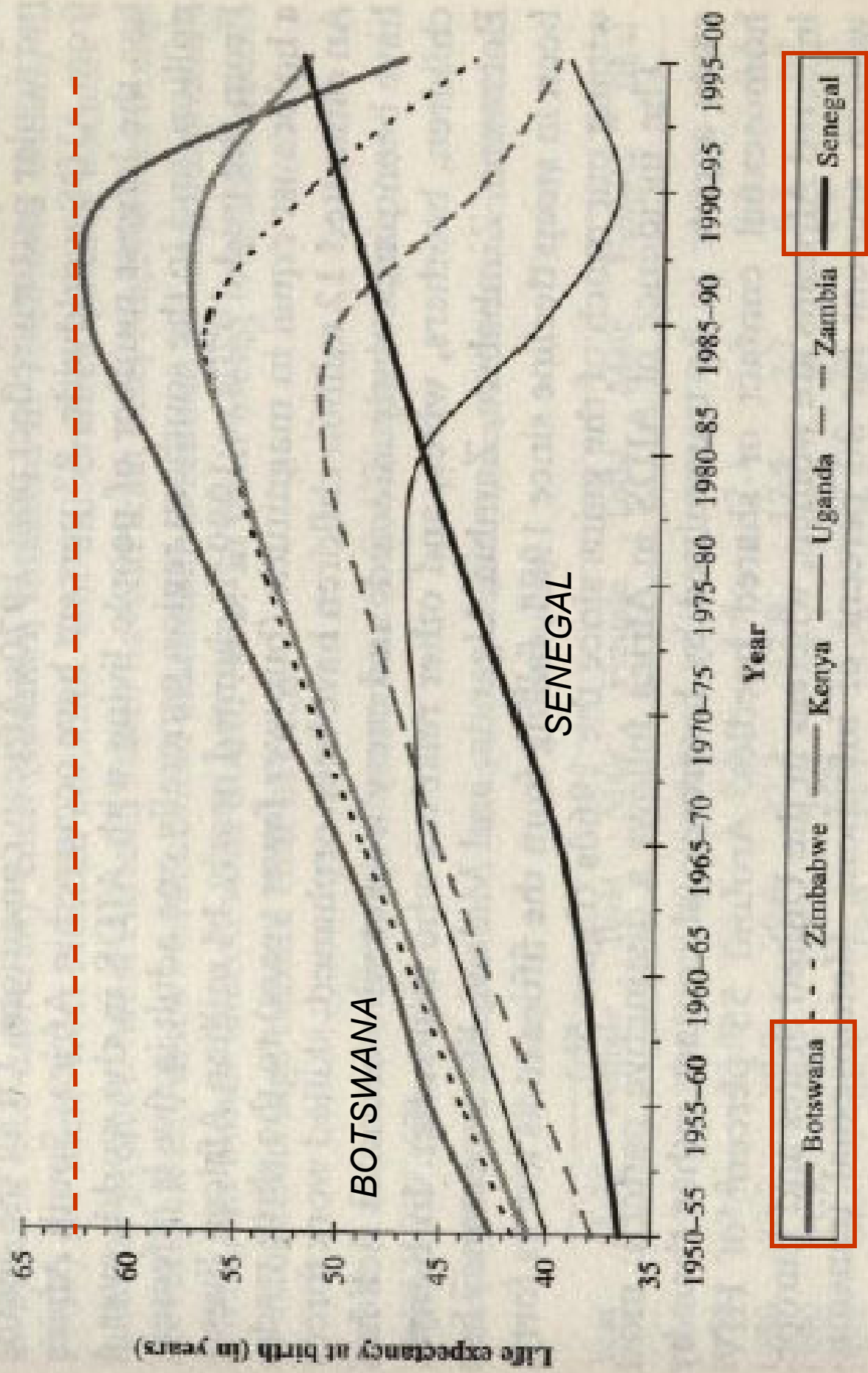


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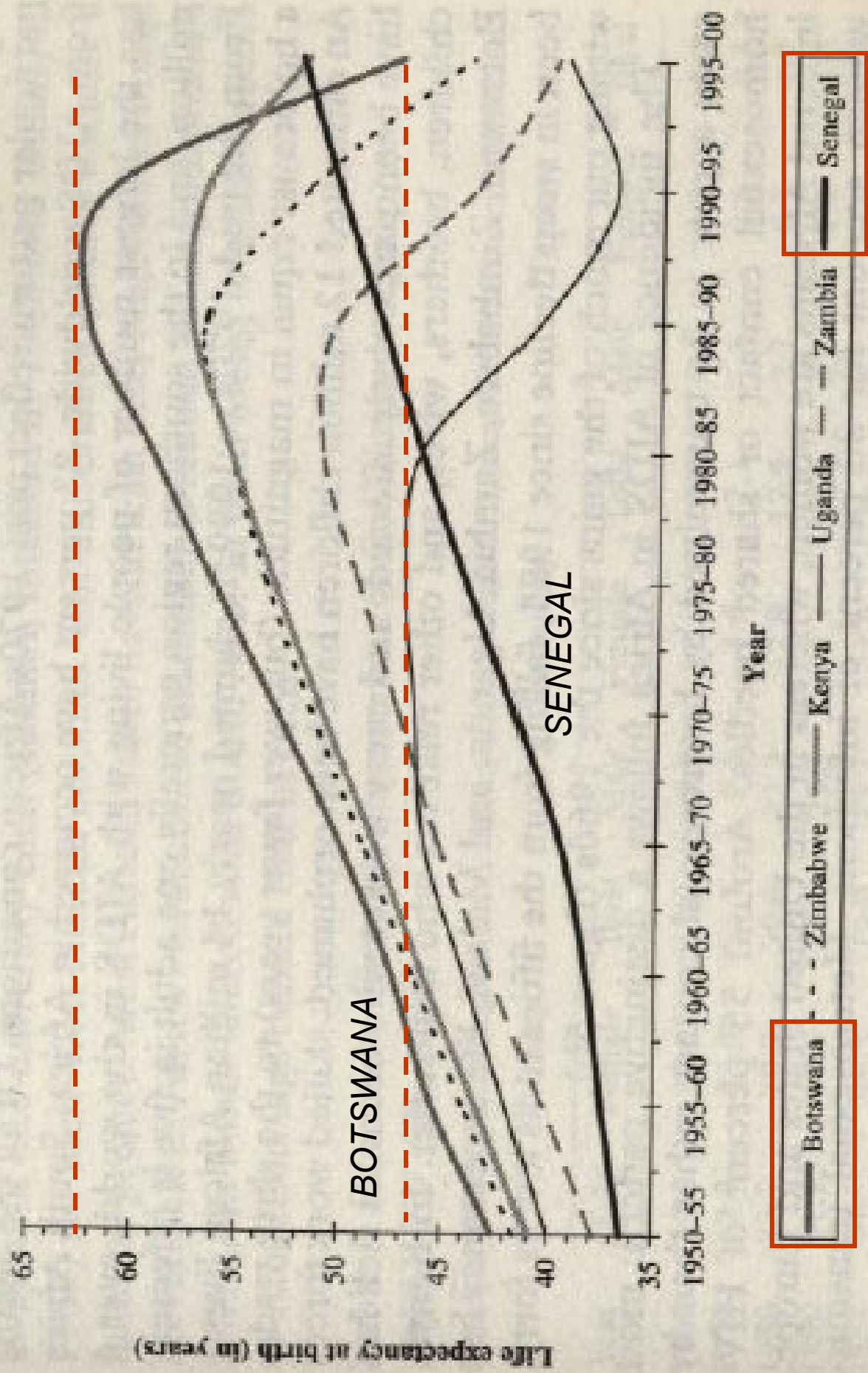


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Explanations for African economic performance

- Why was African economic performance strong in the 1960s and early 1970s?
- Why did African economic performance deteriorate so sharply in the 1970s?
- To answer these questions, we turn to the neoclassical economic growth model for a framework for thinking about the issues

A model of economic production

- The goal is to explain income per capita, y

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 - The “inputs” into economic production are:
 - The “capital” stock per capita, k
- This should be broadly interpreted to include both physical capital stocks (factories, machinery, tractors, and infrastructure) and human capital stocks (education, skills, health)
- The “technology” of production, A
- This should also be broadly interpreted to include production processes, the organization of society, government institutions, geography, and social characteristics that affect productivity

A model of economic production

- Economic production is often modeled using the following functional form:

$$y = f(A, k) = Ak^\alpha, \text{ where } 0 < \alpha < 1$$

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- There are decreasing marginal returns to k . Thus returns to capital investment should be highest in poorer countries, everything else equal (*ceteris paribus*)

Uncovering the causes of slow economic growth

- Low A , $k \rightarrow$ Poverty
- This course explores the underlying causes of both slow capital accumulation and of low productivity in Africa:

Other factors \rightarrow Low A , $k \rightarrow$ Poverty

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- FOR NEXT TIME: Read Jones (2002) on the neoclassical economic growth model

Whiteboard #1

Whiteboard #2

Whiteboard #3

Whiteboard #4

Whiteboard #5

