## **Structural Impediments to African Growth?**

**Countervailing evidence from real wages in British Africa, 1880-1965** 

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## The debate

- 'Structural impediments' to African growth:
  - Geography (Gallup, Sachs et al. 2000)
  - Extractive colonial institutions (AJR 2001, 2002)
  - Slave trades (Nunn 2008)
- Methodological critique:
  - 'Compression of History' (Austin 2008, Hopkins 2009)
- Our point: shift focus to *long-term trajectories* of growth (and stagnation).

## Persistent effect of slave trades (Nunn 2008)

#### Table 1: Relationship between slave exports and income levels and income growth

| Dependent variable          | ln per capita GDP |         |         |         | annual average per capita GDP growth |           |           |  |
|-----------------------------|-------------------|---------|---------|---------|--------------------------------------|-----------|-----------|--|
|                             | 2000              | 1970    | 1960    | 1950    | 1950-1973                            | 1973-1995 | 1995-2008 |  |
| ln (slave exports/area)     | -0.103***         | -0.055* | -0.034  | -0.041  | -0.051                               | -0.104**  | 0.078     |  |
|                             | (0.034)           | (0.029) | (0.029) | (0.030) | (0.033)                              | (0.047)   | (0.065)   |  |
| initial GDP per capita (ln) |                   |         |         |         | -0.476**                             | -0.449    | 0.198     |  |
|                             |                   |         |         |         | (0.190)                              | (0.288)   | (0.264)   |  |
| geography controls          | Yes               | Yes     | Yes     | Yes     | Yes                                  | Yes       | Yes       |  |
| institutional controls      | Yes               | Yes     | Yes     | Yes     | Yes                                  | Yes       | Yes       |  |
| mineral resource controls   | Yes               | Yes     | Yes     | Yes     | Yes                                  | Yes       | Yes       |  |
| colonizer fixed effects     | Yes               | Yes     | Yes     | Yes     | Yes                                  | Yes       | Yes       |  |
| Number obs.                 | 52                | 52      | 52      | 52      | 52                                   | 52        | 52        |  |
| $R^2$                       | .77               | .68     | .62     | .61     | .71                                  | .68       | .67       |  |

# Approach

- Measuring and explaining the long term development of real wages (from ca. 1880 onwards).
  - Urban unskilled wage workers in the major African cities.
  - Deflate wages by prices of standardised consumption baskets (Allen 2001, 2009).
  - Wage and commodity price data obtained from colonial archives.

## A 'bare bones subsistence' basket

|              | Unit     | Quantity per person<br>per year | Nutrients per person<br>per day |               |  |
|--------------|----------|---------------------------------|---------------------------------|---------------|--|
|              |          |                                 | Calories                        | Protein (gr.) |  |
| Maize        | kg       | 185                             | 1.825                           | 41            |  |
| Meat         | kg       | 3                               | 21                              | 2             |  |
| Palmoil/Ghee | litre/kg | 3                               | 73                              | 0             |  |
| Sugar        | kg       | 2                               | 21                              | 0             |  |
| Cotton       | m        | 3                               |                                 |               |  |
| Soap         | kg       | 1,3                             |                                 |               |  |
| kerosine     | litre    | 1,3                             |                                 |               |  |
| candles      | kg       | 1,3                             |                                 |               |  |
| coal         | BTU      | 3 MBTU                          |                                 |               |  |
| Total        |          |                                 | 1.939                           | 42            |  |





### Nominal wages in British East Africa & India, 1880-1965

(Log scale! Pence per day)





### Nominal wages in British West Africa & India, 1880-1965

(Log scale! Pence per day)



#### Welfare ratio

 $\equiv$ 

no. of *family subsistence baskets* that can be purchased from average daily native adult male wage income

|       |              | British West Africa |                 |               |         | British East Africa |           |           |           |  |
|-------|--------------|---------------------|-----------------|---------------|---------|---------------------|-----------|-----------|-----------|--|
|       | Mauritius    | Gambia              | Sierra<br>Leone | Gold<br>Coast | Nigeria | Tanganyika          | Nyasaland | Kenya     | Uganda    |  |
|       | (Port Louis) | (Bathurst)          | (Freetown)      | (Accra)       | (Lagos) | (Dar es<br>Salaam)  | (Zomba)   | (Nairobi) | (Kampala) |  |
| 1880s | 1.8          | 2.3                 | 1.5             | 1.3           | 1.6     | na                  | na        | na        | na        |  |
| 1890s | 2.8          | 2.5                 | 1.4             | 1.4           | 1.5     | na                  | na        | na        | na        |  |
| 1900s | 2.8          | 2.5                 | 1.7             | 1.5           | 1.6     | na                  | 0.5       | 1.0       | 1.2       |  |
| 1910s | 2.0          | na                  | 1.6             | 1.6           | 1.7     | na                  | 0.7       | 1.0       | 1.0       |  |
| 1920s | 3.3          | 3.1                 | 1.3             | 2.6           | 1.9     | 1.9                 | 0.7       | 1.3       | 1.5       |  |
| 1930s | 3.4          | 2.9                 | 2.2             | 3.4           | 2.1     | 1.4                 | 1.3       | 1.4       | 1.2       |  |
| 1940s | 2.4          | 2.7                 | 2.1             | 3.1           | 1.9     | 1.1                 | 1.0       | 1.5       | 1.5       |  |
| 1950s | 3.6          | 3.0                 | 3.1             | 4.1           | na      | 1.6                 | 1.3       | 1.9       | 1.7       |  |
| 1960s | 4.4          | 4.9                 | 4.1             | 5.1           | na      | 2.7                 | 1.4       | 2.5       | na        |  |

#### Welfare ratio in the Gold Coast/Ghana, 1880-1965



#### Adding Maddison's GDP per capita estimates, 1950-2008 (right-hand side, in 1990 GK US\$)



#### Kenya has a distinctively different growth trajectory!



#### Welfare ratios in Accra in global historical perpsective



## Why were wages kept at subsistence level in British East Africa, and not in British West Africa?

• Land alienation and native reserves (esp. Kenya)

• Higher rates of per capita taxes (head, hut & poll taxes)

• Asian migrant workers (mainly from British India)

•Pre-colonial economic development (Hopkins 1973, Austin 2011)

## Conclusion

- Real wages consistently above subsistence level in most places and in West Africa notably higher than in East Africa and East Asia
- This cannot be reconciled with studies emphasizing the 'structural barriers to growth' or the historical 'persistence' of comparative African poverty.
- Long term growth trajectories reveal fundamentally different growth patterns in East and West Africa, which remain hidden when taking per capita GDP as the endpoint of any historical explanation.