Comprehensive Wealth Accounting

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Outline

- Conceptual framework
- The wealth of nations in 2005
- Saving for the future
- Policy messages

Concepts: An Economic Approach to Sustainable Development

Sustainability and human well-being

- Economics views environment and natural resource issues through the lens of benefits to humans, rather than environment having any intrinsic value

- From an economic viewpoint, therefore, a development path is sustainable if human well-being does not decline at any point along the path
    - Of course, part of this well-being is provided by the environment

Basic concepts (1)

- A basic measure is 'saving' – how much of production is saved for the future, rather than being consumed now
- 'Genuine saving' is a comprehensive measure of saving, which includes depletion of environmental resources
- Hamilton and Clemens (1999): negative genuine saving implies that development is not sustainable

Basic concepts (11)

- Other key papers are Dasgupta and Maler (2000) and Asheim and Weitzman (2001)
- Hamilton and Withagen (2007) show that there is a general rule for sustainability: ensure that genuine saving is positive and not growing faster than the rate of interest

Testing genuine saving

- Ferreira and Vincent (2005) show that genuine saving is correlated with future well-being in developing countries
- Ferreira, Hamilton and Vincent (2008) show that genuine saving is the only measure of <u>saving</u> that is correlated with future well-being

The Wealth of Nations in 2005

Income and wealth in Brazil, 2005 $bn

Produced capital	1,828
Natural capital	2,417
Net financial assets	-280
Net worth	3,965
Adjusted NNI	636
Implicit rate of return on wealth	16.0%

Brazil's intangible wealth, 2005 $bn

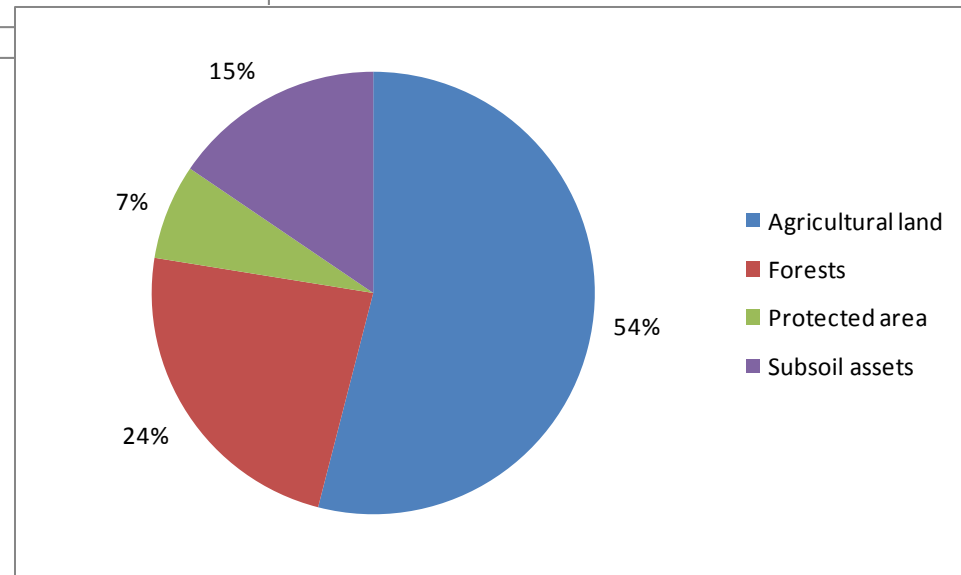|	
Intangible capital	8,806
Comprehensive wealth	12,772
Implicit rate of return on comprehensive wealth	5.0%

Where is the wealth of Brazil?

Shares of total wealth, 2005
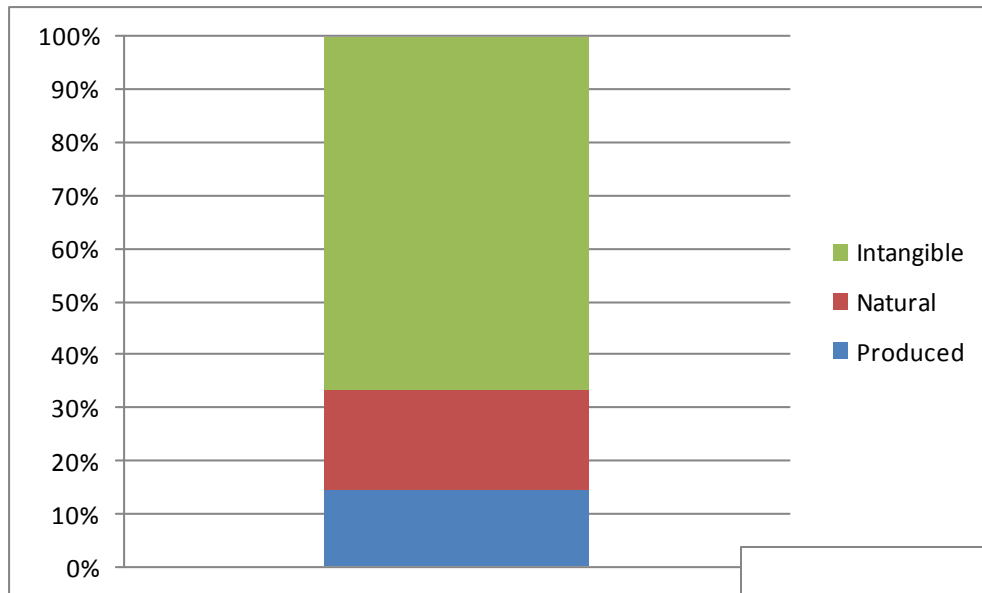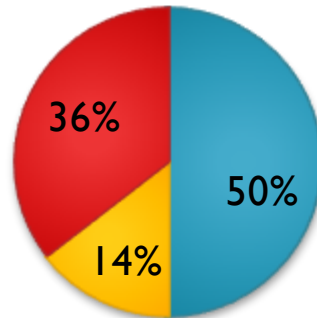

Total wealth / capita: $79,000

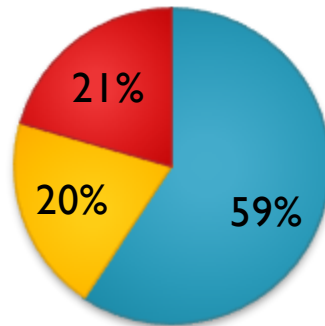Shares of natural wealth, 2005

Composition of total wealth

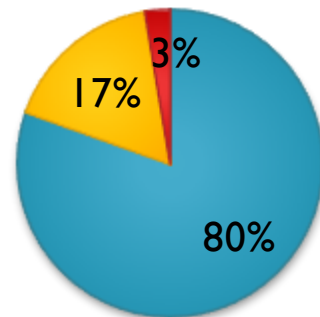*Shares of comprehensive wealth, by income class, 2005*

Low Income Countries

36% 50% 14%

- Natural capital is most important in low income countries—more than twice as large as produced capital

Middle Income Countries

21% 20% 59%

- In middle income countries natural capital and produced capital are roughly equal

High Income Countries

3% 17% 80%

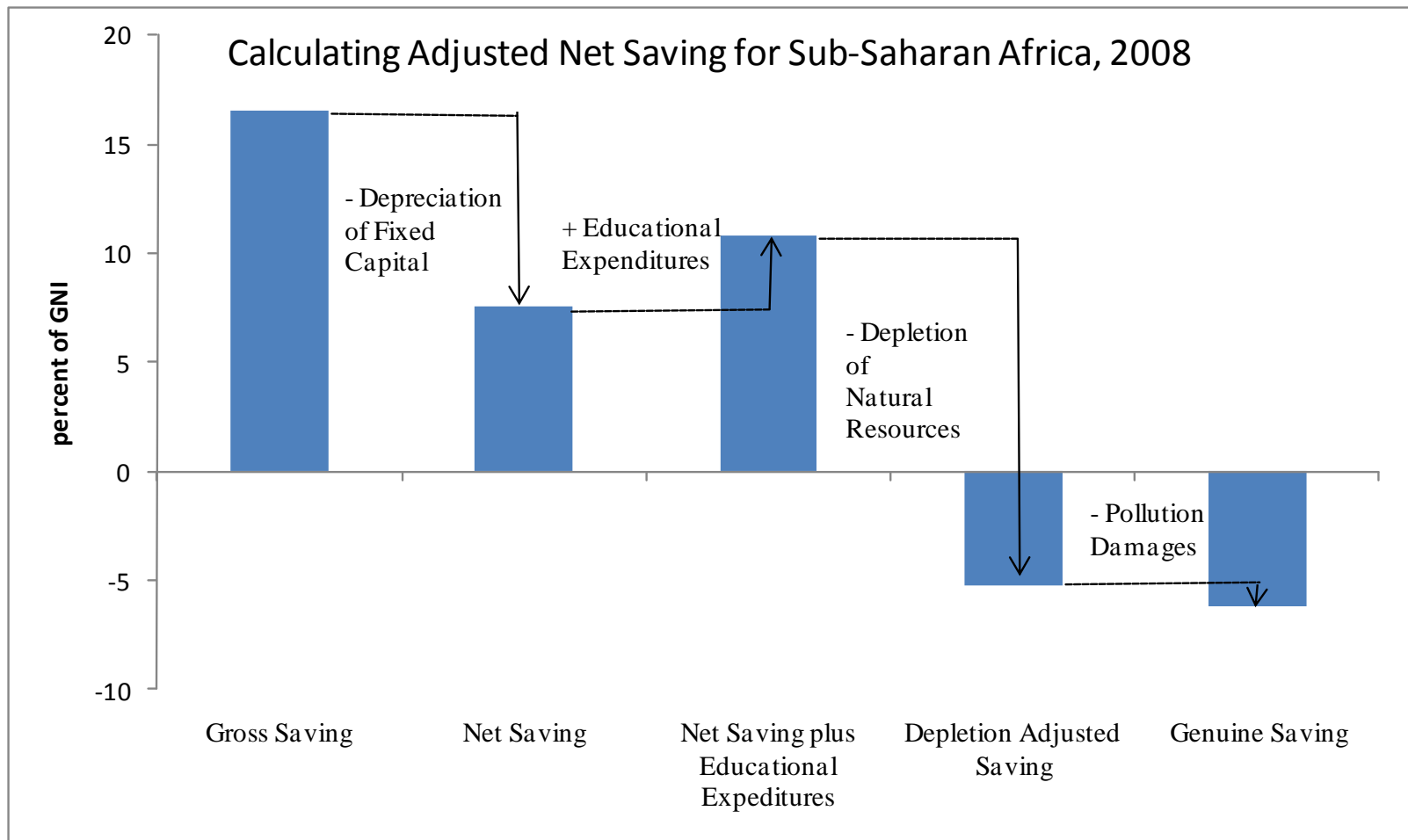- Intangible wealth dominates in all countries, especially in high income countries

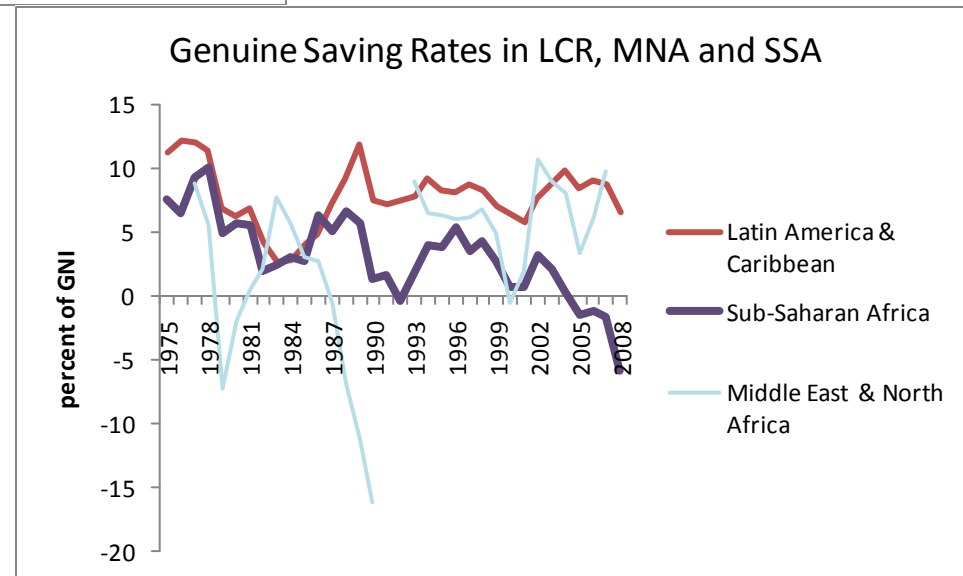■ Intangible Capital   ■ Produced Capital   ■ Natural Capital

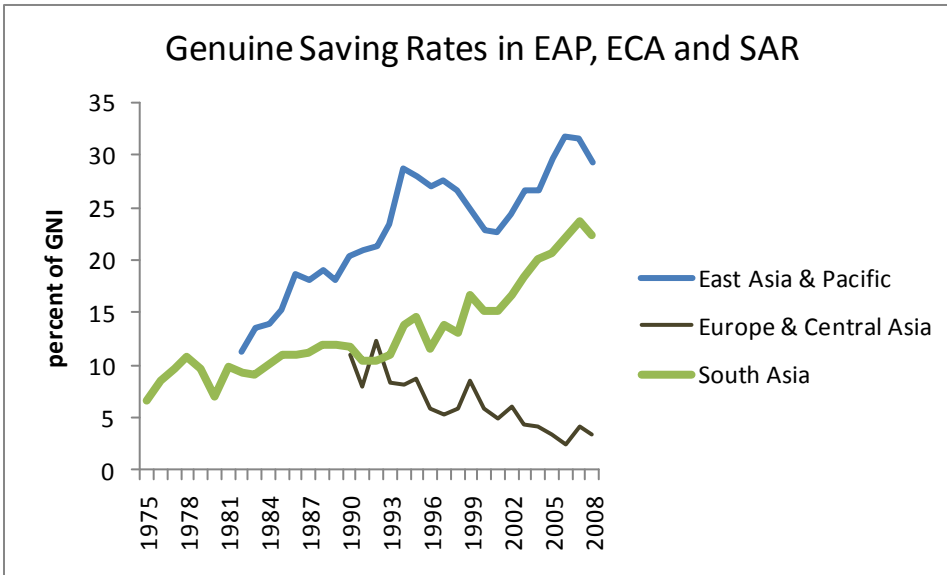# Saving for the future

Extending our measures of wealth creation

Calculating Adjusted Net Saving for Sub-Saharan Africa, 2008

Long-run trends in genuine saving

Genuine Saving Rates in EAP, ECA and SAR

Genuine Saving Rates in LCR, MNA and SSA

Limitations of the approach

Limitations

- Difficulty in valuing some natural assets
- Limited substitution possibilities
- Completeness of the accounting
- Accounting for ecosystem services
  - Most ecosystem services are capitalized in other assets, but not explicitly
  - Most are provided as 'externalities'
  - The result: ecosystem services are at risk
  - The solution: identify the source of the ecosystem service, and put a value on it

"How we measure development will drive how we do development"

Policy implications

- Strengthen natural resource management and protect the sources of ecosystem services
- Invest resource rents in other assets
- Lower carbon footprints – 'green growth'
- Invest in people
- Build institutions

Thank you!

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