

Measuring Sustainability for Decision-making

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Outline

- Economic approaches to measuring sustainability
- Strong vs. weak sustainability
- Priorities for research / measurement
- Links to policy / decision-making

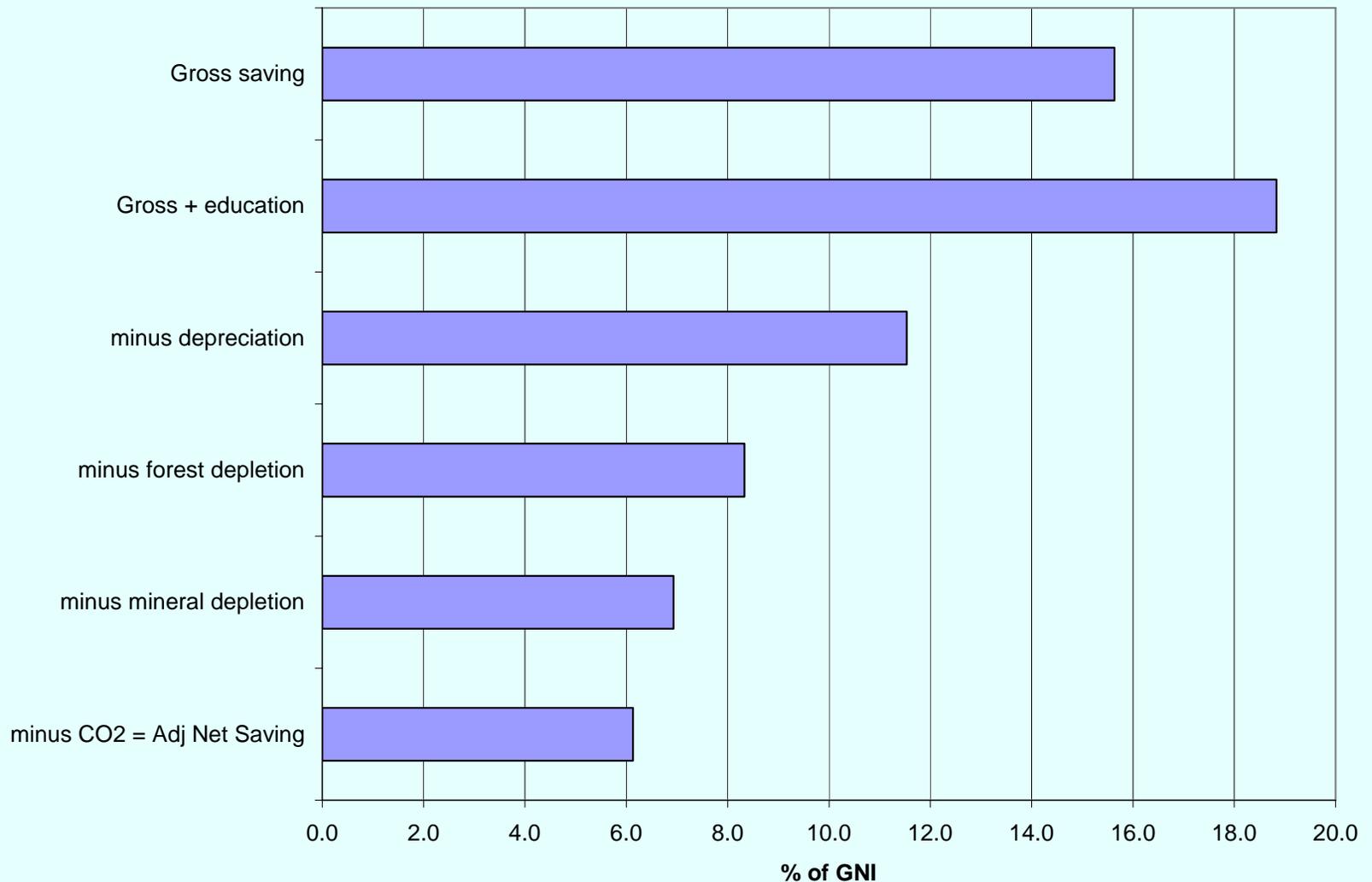
Measuring sustainability

- Economic theory suggests that:

$$\Delta \text{ real wealth} = \Delta \text{ future welfare}$$

- Declines in inclusive wealth (produced, natural, human) therefore signal unsustainability

Ghana – decomposition of genuine saving (2000)



Strong vs. weak sustainability

- Weak sustainability assumes that produced assets can be substituted for natural assets
- Strong sustainability suggests that some critical natural capital must be preserved – there is no or minimal substitutability

⇒ Implications for research agenda

Priorities for research / measurement

- Missing or sparse information on economic values
 - Biodiversity
 - External benefits e.g. forests, coral, mangroves
 - Environmental services e.g. regulation of water flow, pollination
 - Soil degradation

Priorities for research / measurement

– strong sustainability

- Defining “safe minimum” levels of conservation of nature
- Non-linearities: where? when? e.g. collapse of the Canadian cod fishery

Links to policy / decision-making

- Payments for environmental services (e.g. Costa Rica Ecomarkets) – actually tapping willingness to pay reduces information requirements
- Community conservancies (e.g. Namibia) – creating property rights changes incentives
- For strong sustainability / non-linearities, quantitative restrictions may be the best instrument