

Economic interpretation of sustainability (weak vs strong approach)

Durabilité

🏠 > La HES-SO > Durabilité

Plateforme de durabilité

La HES-SO s'engage pour une **durabilité forte**. Elle mène de nombreux projets dans le but d'activer la transition vers une société durable.

SD in economics is linked with the concepts of :

- **Economic income** is the maximum amount that an individual can consume over a period of time, without depleting its wealth (Hicks).
- **Wealth** is a stock of capital, which represents opportunities

$$\text{C Sustainability} = \text{C economic} + \text{C social} + \text{C natural}$$

SD is respected when it is possible to live on the interest on the long-term without reducing the capital.

«Weak» vs «Strong» approaches to sustainability»

The capital stock model raises the issue of the **exchangeability of capital stocks** that characterises and differentiates sustainability approaches: :

Weak

for SD, the total capital stock (total wealth) should not decrease

→ Substitution; monetary evaluation

Strong

for SD, the stock of each form of capital, especially the stock of natural capital, must be kept intact.

→ Complementarity; precautionary principle; no need for monetary valuation



4. Can we put a price on nature?

It's estimated that 25% of plant and animal species are at risk of extinction.

Would putting a price on nature help protect biodiversity? [Video here.](#)

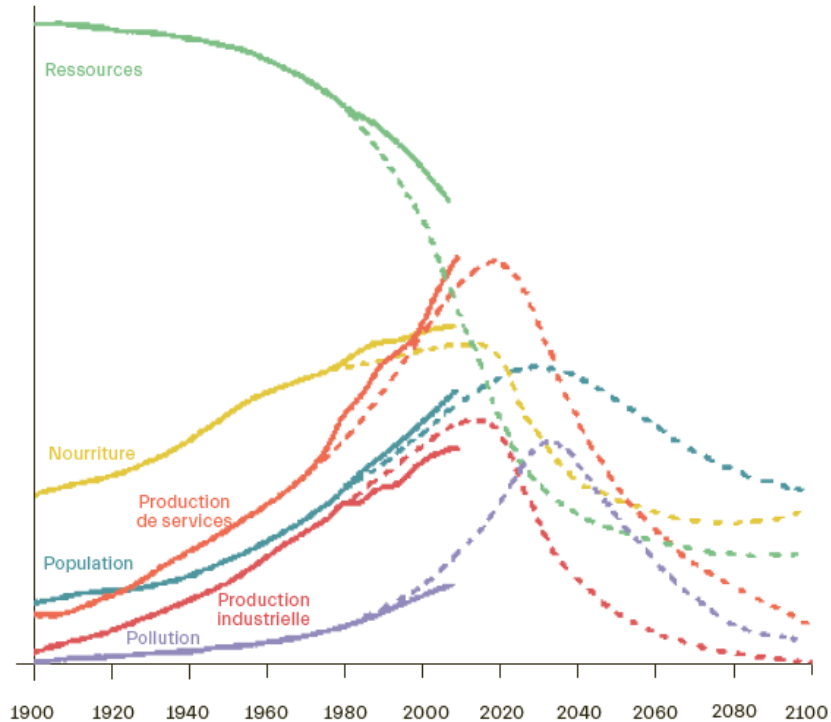
Illustration - «weak» vs «strong» sustainability



The misuse of gross domestic product (GDP) to measure well-being or quality of life: Main Limitations

Economic Growth

Halte à la croissance : le scénario standard
du *Business as usual*



Le rapport du Club de Rome modélise les conséquences possibles du maintien de la croissance économique sur le long terme. Différents scénarios sont conçus, dont celui du *Business as usual*, très proche de la situation actuelle et qui, en franchissant les limites physiques de la nature, amène à l'effondrement de la société humaine.

— Réel (jusqu'à 2010)
- - - - - Projeté

Growth makes it possible to raise the standard of living and consequently the well-being of the population.

BUT

This is accompanied by issues related to the use of natural resources and climate change.

(Ferro Luzzi et Weber, 2021, p. 4)

Gross Domestic Product (GPD)

Traditionally, growth is measured by the increase in **GDP**

GDP is the total value of all final goods and services produced within a region (country or canton) during a given period (usually a year or a trimester).

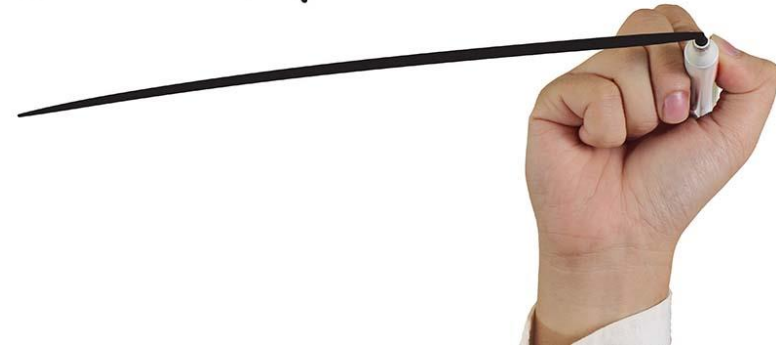
Synthesizes in **a single figure the value in monetary terms of economic activity** → measures the value of production over a given period

(Ferro Luzzi et Weber, 2021, p. 8)

Limitations of GDP as a measure of well-being and quality of life (1)

1. Since GDP measures the market value of goods and services, **anything that does not have a market value is excluded**
2. **Focuses on the quantity** of goods and services and much less on quality

LIMITATION



Limitations of GDP as a measure of well-being and quality of life (2)

3. Does not give importance to the value of the national heritage in general and of natural resources in particular, on the contrary ...

4. do not provide any information on the distribution of wealth. No information on inequalities.

5. Does not allow to approximate the well-being of a territory because it does not take into account the mobility of production factors.

Does not measure the things that contribute to well-being, but somehow measures the ability to obtain the things necessary for well-being.

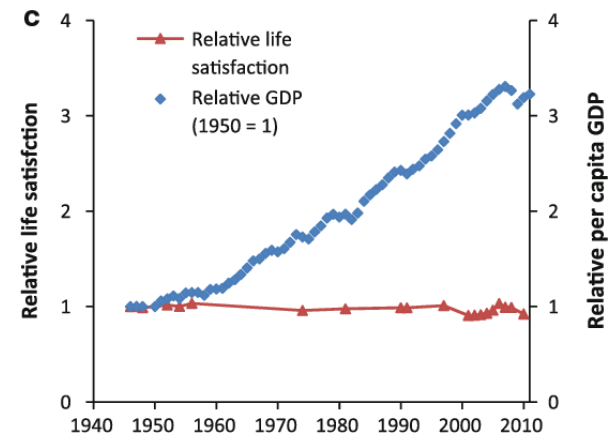
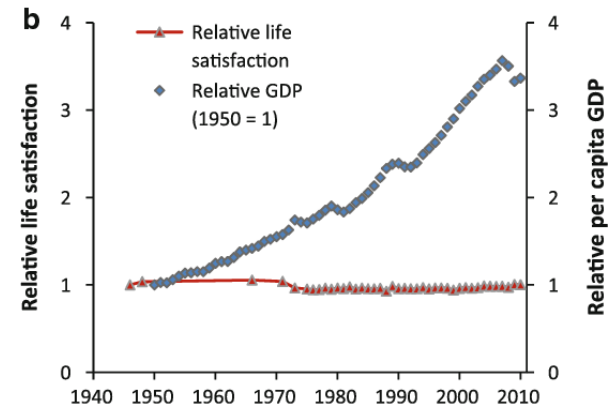
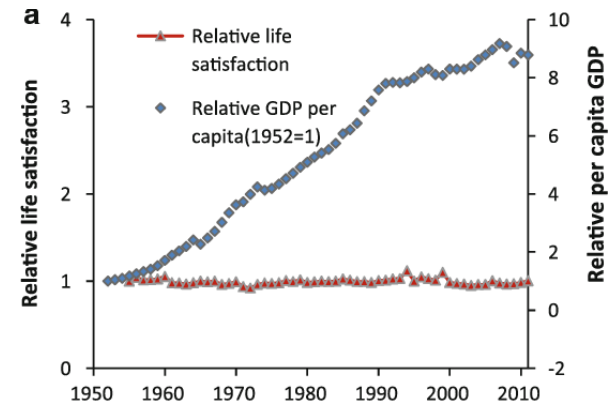
From an SD perspective, the focus is on the measurement of well-being.

The graphs on the right show the evolution of GDP per capita and life satisfaction.

a: Japan (1952-2011)

b: UK (1946-2011)

c: USA (1946-2011)



(Pretty J. (2013 : «The consumption of a finite planet.» Environmental and Resource Economics 55, 475-499, cité dans Baranzini, 2018)

Current considerations

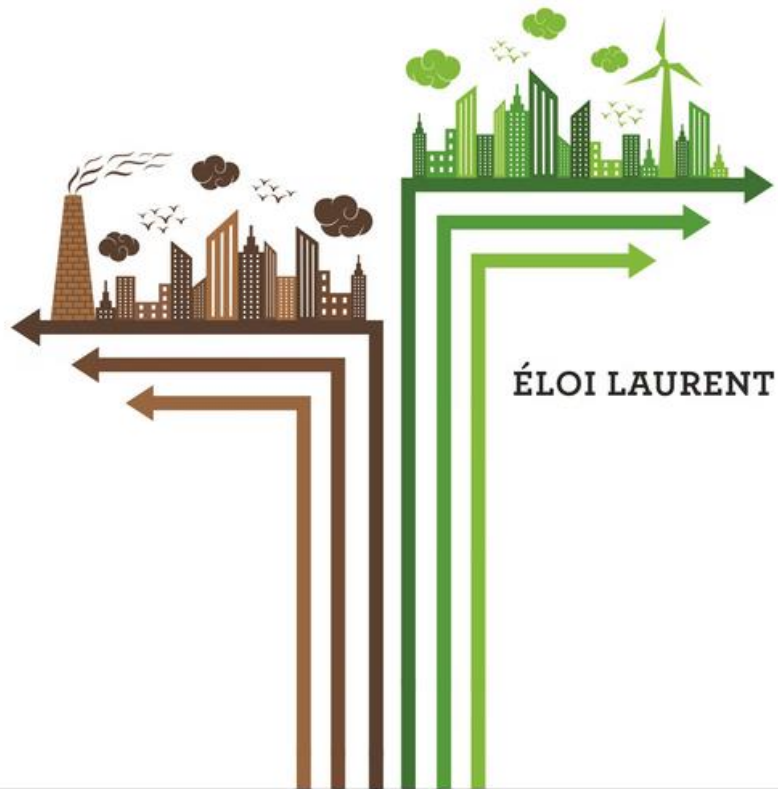
In recent years, there has been a willingness to use **other indicators**

- Not exclusively based on monetary dimensions
- Who do not measure only the general level
- Are taking into account **inequalities**
 - Verticals: between the top and bottom of social classes
 - Horizontal: between groups in society (e.g. men and women)
- Which take into account **environmental impacts**

(Ferro Luzzi et Weber, 2021, p. 4)

MEASURING TOMORROW

Accounting for Well-Being, Resilience, and Sustainability in the Twenty-First Century



etudiant-e

Math 3

Durabilité Madeleine Rodier

1. Objectifs pédagogiques et enjeux globaux de durabilité [Slides]

Lectures et questionnaires obligatoires

Lecture 1 - "Bons et mauvais indicateurs : le cas du PIB" Lire p.20-26 [Etagère Scholarvox] - (en E, connection au VPN de l'école requise)

Questionnaire Lecture 1

*Should we grow?
And if so ...What needs to grow?*

At the country level, what would be the indicators allowing you to assess the sustainable development or well-being of population ?

1. To do:

- Determine 10 indicators
- Place them on the SD scheme
- At least 1 per area

2. Organisation:

- 7 groups (as per in Finances)
- Fill group corresponding scheme in Teams
- Time available 15 minutes
- Shared feedback

