Sustainable Economic Welfare in Portugal (1950-2006)

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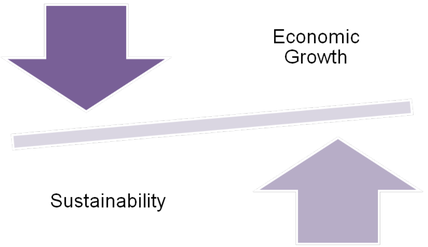
Introduction



Economic growth is still widely considered one of the building blocks of human development. However, conventional expectations about the persistence of economic growth and associated improvements in human welfare, which emerged in a period during which economic growth consistently translated into income growth, are increasingly being called into question as resource scarcity makes its influence felt.

Aim

To examine the relationship between economic growth and welfare in Portugal from 1950 to 2006 and to test the Max-Neef theory, in which economic growth is only positively correlated to improvements in well-being up to a certain point. Also to provide different perspectives on welfare and sustainability with the application of other indexes.

Method

Application of the Index of Sustainable Economic Welfare to Portugal and analysis with different perspectives of sustainability and analysis with GDP:

- Scenario A (1950-2006)
Only some of the components were included due to data availability problems.

- Scenario B (1970-2006)
Introduction of other components not included in the scenario A, according to data availability, namely, defensive private expenditures/health and education (starting in 1970), costs of air (since 1980), water (starting 1995) and noise (starting 1989) pollution, change in net international position (considering only direct investment and starting in 1996).

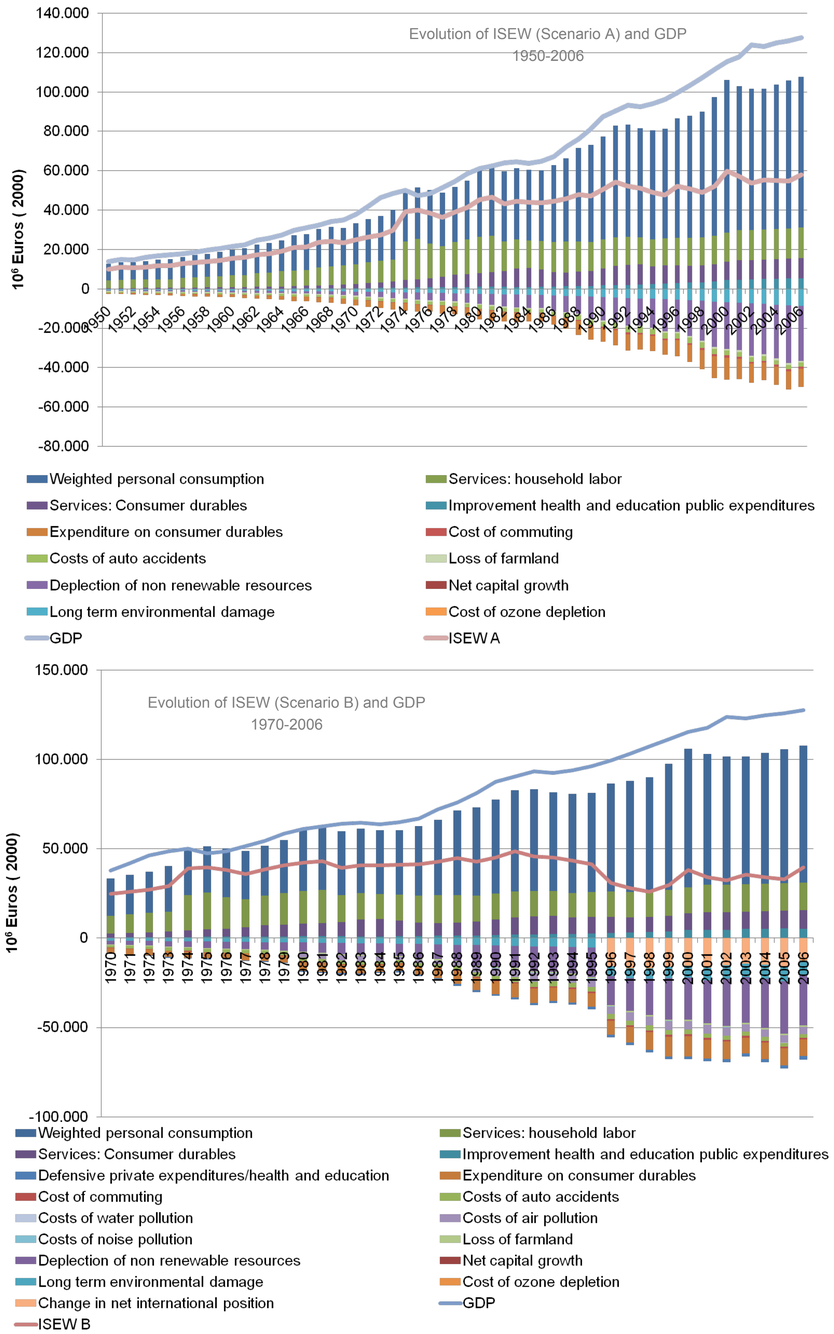
Other indexes are also analyzed and compared with ISEW and GDP:

- Human Development Index (1975-2006)

- Ecological Footprint (1961-2006)

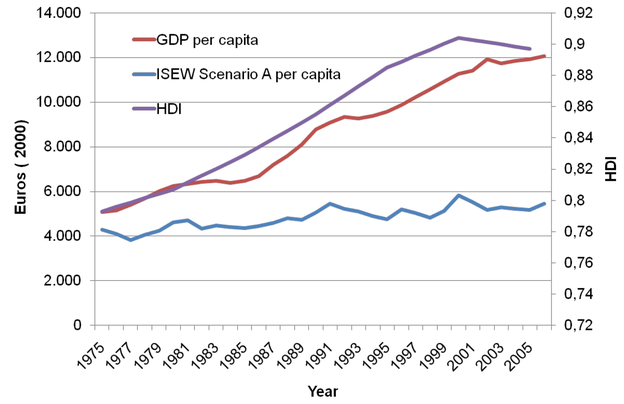
- Genuine Savings (1971-2006)

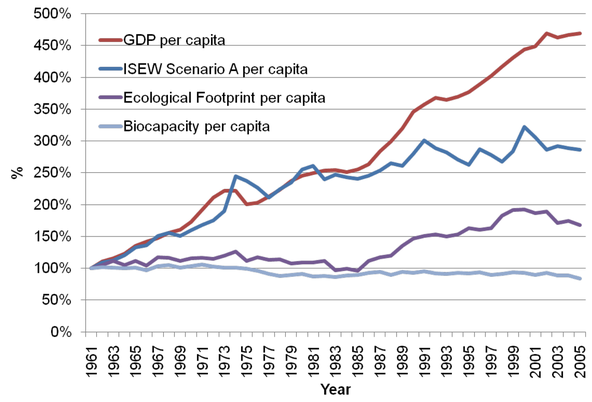
Results



Welfare in Portugal, measured using ISEW, did not improve proportionally to the country's economic growth. This finding is particularly significant in terms of certain components of ISEW, namely, domestic housework, income inequality, long-term environmental damage, services from consumer durables, expenditures on consumer durables, depletion of non-renewable resources and net change in international position.

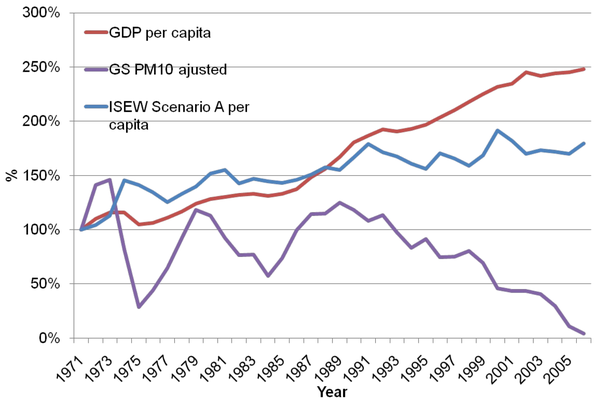
Although there are other dimensions of human needs in HDI, it can be shown that growth of the economy has a strong influence, which is not felt in the ISEW





From the EF perspective, since the 1980's economy growth has significant impacts on natural resources in a period where ISEW decreases its growth

The GS reinforce a unsustainability scenario although its major decreases are associated with consumption of fixed capital and not with pollution or natural resources depletion



Conclusions

The Max-Neff theory could not be proved using the available data, since the ISEW increased throughout the period examined, even if not proportionally to economic growth. The lack of data may have a strong influence in this final result. Nevertheless an unsustainability scenario is reinforced.

Future work in this area should use physical indexes on a broader scale, with a special focus on trends in the use of material resources and on total energy consumption and energy inputs per unit of production.