

Natural Capital, Resources and Sustainability in historical perspective

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Over the past quarter-century, Genuine Savings (GS) –or Adjusted Net Savings (ANS)– has emerged as an important indicator of Sustainable Development. It is based on the concept of wealth accounting

(Hamilton and Hepburn, 2014) and represents a measure of how the country’s total capital stock (physical, natural, social, institutional and human) changes year-on-year. Following the pioneering studies of Pearce and Atkinson (1993) and Hamilton (1994), the World Bank has published estimates of GS from the mid-1990s to the present (World Bank, 1995, 1997, 2015). Hamilton & Clemens (1999) and World Bank (2006, 2011) illustrate the nature of these estimates for almost all countries in the world and show how a negative GS indicator can be interpreted as a signal of unsustainable development. Current World Bank data to support the calculation of GS at the country level stretches back to the 1970s, and provides empirical evidence of the level of sustainable/unsustainable economic development throughout the world. However, the social and economic development is, by definition, a long-run process where path-dependence, persistence and multiple equilibriums interact in the construction of “the future”. What can we learn from history about the sustainable development and natural capital trends? We propose a session to discuss on these subjects to offer novel views about the economic history of regions and countries and contribute in the current debate about sustainable development policies.

Tracing sustainability in the long run. Genuine Savings estimations 1850 – 2018

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This article traces levels of weak sustainability from the mid-19th century to the present day using the Genuine Savings metric (henceforth, GS). GS is an indicator propagated by the World Bank and has been widely used in contemporary economic research; it measures progress and development and has proven to be a relevant indicator of sustainable development. GS is based on the concept of wealth accounting, and addresses shortcomings in conventional metrics of economic development by incorporating broader measures of saving and investment, including human capital (education), and natural resources by accounting for social costs of pollution and natural resource depletion. Its value as an indicator is determined the possibility to predict future standard of living on basis of genuine investments of the past.

A central shortcoming of GS data provided by the World Bank is its limited historical coverage; conventional GS data usually covers the period after 1970s. This limits the empirical studies linking past genuine investment and the future development of the standard of living. This article addresses this gap by providing consistent historical estimates of GS since 1850 the necessary figures for economists, policy makers and general public to assess the role of sustainable development in a more holistic fashion. In order to estimate the global sustainability trends in the long run, this paper version includes three countries since 1850, two from 1880’s

and ten from circa 1900. The data collection and collation has been done in a standardized way avoiding different valuation by national accounts of each country and including (and improving) the valuation of environmental damages such as CO₂, including three price estimations based in recent literature. The main finding is a bigger gap between developed and developing countries than the revealed by mainstream income measures.

Romanian Oil – Historical Record and Prospects

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Romania is one of the few European countries with notable oil resources. While oil extraction started in the 1850s, the overall production became economically significant only in the 1890s, when the country started to attract major transnational companies, which integrated it into global commodity chains. Production of crude oil reached a peak in the mid-1970s and declined afterwards. From about 1900 to the 1970s, Romania was a major exporting country of both crude oil and oil products, but industrialization and the partial exhaustion of domestic crude oil resources turned it into a net importer.

The paper aims to outline the development phases and the impact of the Romanian oil industry both at local and at national level. At the same time, it will attempt to evaluate the sustainability scenarios in the context of the European Green Deal and of the limited domestic resources. The paper will also consider the indirect impact of global demand, with relatively modest oil prices restricting incentives to invest into crude oil extraction during most of the 2020s. In its final section, the paper will briefly sketch how the Romanian oil case fits into the more general discussion about the life cycles in the economic use of natural resources.

Does natural resource extraction compromise future well-being? Norwegian Genuine Savings 1865-2019

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Over recent years Genuine Savings (GS) emerged as an indicator for weak sustainability and predictor of socio-economic well-being. This paper presents the first long-term GS estimates for Norway, covering the period from 1865 until 2019. The results indicate unsustainable development throughout most of the period leading up to the Second World War and sustainable development ever since 1946. This result is rather surprising since the discovery of oil and natural gas fields in 1969 resulted in substantial natural resource depletion, which is usually associated with negative levels of GS. However, in a particularity compared to most natural resource exporters, Norway managed to achieve sustainable development by compensating natural resource depletion with high investments into human and physical capital.

Historical Genuine Savings in Latin America (1880 – 2020). Stylized facts on natural resource dependence and development

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Latin America has been characterized as a region dependent on natural resources. The economic cycles of Latin American countries are related with raw materials demand from the core economies, hampering the autonomy of its economic policy. In this article we found that Latin America has a bigger gap with the developed world than mainstream income estimations suggest (mainly GDP estimations). If we take into account environmental degradation and lack of reinvestment of natural resources rents (under the adjusted net savings framework), Latin America have not achieved the basics of weak sustainability, meaning the compensation of natural resource extraction and environmental damages through investment in physical and human capital. Using a sample of seven countries, including Argentina, Brazil, Chile, Colombia, Mexico, Uruguay and Venezuela, the study covers more than 130 years of history.

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