

Opinion

Volume 16 Issue 3 - January 2019  
DOI: 10.19080/IJESNR.2019.16.555938

Int J Environ Sci Nat Res

Copyright © All rights are reserved by Juan Labat

# Do we need just one sustainable development indicator? Could Genuine Savings be that one?



Juan Labat<sup>1\*</sup> and Henry Willebald<sup>2</sup>

<sup>1</sup>Department of Social Sciences, Universidad Carlos III de Madrid, Spain

<sup>2</sup>Instituto de Economía, Universidad de la República, Uruguay

**Submission:** December 11, 2018; **Published:** January 18, 2019

**\*Corresponding author:** Juan Labat, Universidad Carlos III de Madrid, Spain

**Keywords:** Sustainability; Genuine Savings; Economic Development

## Opinion

In this brief document we would like to give our point of view about the importance to promote and consolidate an economic indicator of sustainability and suggest Genuine Savings, an indicator in which an increasing number of scholars and institutions are working on. Without hiding the complexity of sustainable development, we believe that consolidating one indicator could help to understand the performance of societies and align actions in order for countries to be in a sustainable path. Moreover, Genuine Savings could help understand sustainability in the long run and could work as an indicator of future well-being.

## Sustainable development and the economics of sustainable development

Sustainable development is a concept that has gained attention in a large number of academics, governments and multilateral organizations in the last decades. The Brundt Report probably popularized this term and defined it as “development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs” [1]. The Millennium Development Goals and the Sustainable Development Goals are two huge initiatives promoted by the United Nations that are focused on sustainable development and try to align actions to achieve a number of goals in this sense. Just to have an idea, the Sustainable Development Goals are 17 and define nearly 170 targets. The economics of sustainable development are based around two alternative definitions [2]: i) sustainable development is a path for an economy where utility or consumption per capita is not declining (outcome based); ii) sustainable development is a path for an economy where the (per capita) value of the total capital stock is not declining (capabilities based). In this second definition, capital stock is considered in a broad sense including produced or man-made capital (machines and physical infrastructures), natural capital (those assets that have been provided “free of charge” by the natural world), human capital (which is embodied in people themselves), and other intangible capitals (as institutional and

social capital) [3,4]. In this framework, to sustain the development becomes a process of sustaining wealth or, in other words, the manner in which the different modalities of assets of the economy maintain or enhance. These capabilities approach drives one of the great sustainability debates, characterized in terms of whether development should be “weakly” sustainable or “strongly” sustainable. As Atkinson [5] argue, for “weak sustainability”, as long as the value of total asset portfolio of a society is held constant, it matters little that its components change over time. On the contrary, “strong sustainability” requires that our focus is more on what is happening to the constituents and, particularly, in natural capital.

## Do we need one sustainable development indicator?

Considering the relevance of sustainable development and in order for societies to align forces to this goal, we believe that is relevant and necessary to agree on how to measure sustainable development, at least from an economic point of view, and promote an indicator which could show how societies are performing with respect to sustainable development. Without trying to hide or reduce the complexity which embodies sustainability and the relation between environment (and its quality), society (and its well-being) and economic growth, we believe that promoting one indicator could help to reinforce the importance of this concept. In the words of nobel laureate Joseph Stiglitz “What we measure affects what we do. If we focus only on material wellbeing – on, say, the production of goods, rather than on health, education, and the environment – we become distorted in the same way that these measures are distorted; we become more materialistic”. As an example, although the Human Development Index (HDI) could have some flaws [6] and we can believe that it is completely subjective how it is constructed (why rating with one-third dimensions so different as income, education and health?), it has become a worldwide reference for human development measurement and a clear sign for political action. GDP (or GDP

per capita) is another example. It has become a reference for measuring countries economic performance although it doesn't consider correctly a large number of aspects which occur in reality: how to measure illegal activities? How to consider the differences in quality between products and services? Accepting these flaws and promoting continuous improvement, such as the System of National Accounts promotes, it is the way to strengthen an indicator.

### Could Genuine Savings be that one?

In the last 30 years, Genuine Savings, or Adjusted Net Savings, has become a relevant indicator of sustainability. It measures year on year changes in capital stocks (in the broad sense) so it shows how a society is managing its wealth portfolio in order to generate a stream of well-being over time. It gives a sign of "weak" sustainability but looking at its components one can see how the social-economic-environment-institutional complex relation is working. The theoretical basis could be seen using the Dasgupta-Heal-Solow-Stiglitz model and presented by Dasgupta [7] and Hanley [2]. In brief, assessing sustainability reduces to valuate changes in the set of instruments of wealth priced using the relevant shadow prices, so that the rate of change of comprehensive investment will indicate evolutions in intergenerational well-being.

Since mid-1990s, the World Bank has been promoting and estimating this indicator for a large number of economies having today data for almost all countries from the 1970s onwards [3,4]. Recently, long run estimations (from the 19<sup>th</sup> century) have been developed [8-14] contributing with evidence for understanding sustainable development in different countries in historical perspective and discussing several assumptions proposed by the World Bank. Another group of scholars have been studying Genuine Savings capacity to predict future well-being [14,15] obtaining very promising results. The majority of these studies refer to developed economies but, progressively, some authors have introduced peripheral cases into the discussion (as us have done referred to Uruguayan case).

We would like to remark two things that derives from estimating Genuine Savings, moreover of the usefulness of it as a sustainable indicator. First, for estimating Genuine Savings, the wealth components of a society have to be measured, wealth considered in a broad sense as it was already mentioned. This implies estimating human, institutional and natural capital, contributing to wealth accounting and pushing forward from what the System of National Accounts has already consolidate, which is man-made capital. Second, estimating Genuine Savings implies also to estimate how economic activity affects natural capital which implies understanding how pollution works and including these negative externalities in the estimations. These

considerations, introduced in historical approaches of economic development, offer new insights to understand the long-run performance of economies, regions and the world.

### References

1. WCED (World Commission on Environment and Development) (1987) *Our Common Future*. Oxford: Oxford University Press.
2. Hanley N, Dupuy L, McLaughlin E (2014) *Genuine Savings and Sustainability*. Discussion Papers in Environmental Economics 2014-09, University of St. Andrews, UK.
3. World Bank (2011) *The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium*. The World Bank: Washington DC, United States.
4. World Bank (2006) *Where is the wealth of nations? Measuring capital for the 21<sup>st</sup> century*. The World Bank: Washington DC, United States.
5. Atkinson G, Dietz S, Neumayer E, Agarwala M (2014) Introduction. In Atkinson G, Dietz S, Neumayer E, Agarwala M (Eds.) *Handbook of Sustainable Development*, Second Edition, Edward Elgar Cheltenham, UK - Northampton, MA, USA 1: 1-22.
6. Camou M, Maubrigades S (2005) La calidad de vida bajo la lupa: 100 años de evolución de los principales indicadores. *Boletín de Historia Económica* 3(4): 51-63.
7. Dasgupta P (2009) The Welfare Economic Theory of Green National Accounts. *Environmental & Resource Economics* 42(1): 3-38.
8. Blum M, Ducoing C, McLaughlin E (2017) *A Sustainable Century? Genuine Savings in developing and developed countries, 1900-2000*. In Hamilton K, Hepburn C (Ed.) *National Wealth: What is Missing, why it Matters*. Oxford University Press: UK.
9. Blum M, McLaughlin E, Hanley N (2013) *Genuine savings and future well-being in Germany, 1850-2000*. SIRE Discussion Paper SIRE-DP-2013-126, Scottish Institute for Research in Economics, University of Stirling.
10. Greasley D, Hanley N, Kunnas J, McLaughlin E, Oxley L, et al. (2014) Testing genuine savings as a forward-looking indicator of future well-being over the (very) long-run. *Journal of Environmental Economics and Management* 67(2): 171-188.
11. Greasley D, Hanley N, Kunnas J, McLaughlin E, Oxley L, et al. (2013) *Comprehensive investment and future well-being in the USA, 1869-2000*, Stirling Economics Discussion Paper 2013-06, University of Stirling.
12. Greasley D, Hanley N, McLaughlin E, Oxley L, et al. (2012) Testing for long-run 'sustainability': Genuine Savings estimates for Britain, 1760-2000. *Stirling Economics Discussion Papers* 2012-18, University of Stirling.
13. Lindmark M, Acar S (2013) Sustainability in the making? A historical estimate of Swedish sustainable and unsustainable development 1850-2000. *Ecological Economics* 86: 176-187.
14. McLaughlin E, Greasley D, Hanley N, Oxley L (2012) Testing for long-run "sustainability": Genuine Savings estimates for Britain, 1760-2000. *Stirling Economics Discussion Paper* 2012-05, Stirling Management School, University of Stirling.
15. Ferreira S, Hamilton K, Vincent JR (2008) *Comprehensive wealth and future consumption: accounting for population growth*. *The World Bank Economic Review* 22(2): 233-248.



This work is licensed under Creative Commons Attribution 4.0 License  
DOI: [10.19080/IJESNR.2019.16.555938](https://doi.org/10.19080/IJESNR.2019.16.555938)

**Your next submission with Juniper Publishers  
will reach you the below assets**

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats  
**( Pdf, E-pub, Full Text, Audio)**
- Unceasing customer service

**Track the below URL for one-step submission**  
<https://juniperpublishers.com/online-submission.php>