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Short Communication

More indebted than we know? Informing fiscal policy with an index of sustainable welfare for Greece

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ABSTRACT

Given the austere economic measures imposed to Greece after the commencement of the economic crisis in 2010, we calculate the Index for Sustainable Economic Development (ISEW) with the aim to inform policy and stakeholders about the sustainable Greek GDP. Throughout 2000–2012, annual GDP per capita appears many times higher than the ISEW per capita for the period, thus making the Greek debt payback a more difficult exercise to solve.

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1. Introduction

Unsustainable policies in the past decades combined with particular international circumstances, led Greece on the verge of bankruptcy in 2010. Since then, the finances of this country have been at the forefront of the European and international agenda and a combined financial program has been stipulated between Greece, International Monetary Funds (IMF), European Commission (EC) and European Central Bank (ECB). The program entails repayment of the loans and a careful consideration of this capability of the economy. Therefore, the ISEW accounting has never before been more urgent and timely for policy makers and stakeholders. This paper gauges a definite literature gap since the ISEW or other relevant indexes have not been calculated for Greece yet, but only for few countries worldwide.

The need for the calculation of the ISEW index or other indexes, such as the Genuine Progress Index (GPI), which constitutes an elaboration of the former, had been realized quite early. Kuznet (1934) had first objected to the welfare of a nation being deduced only from GDP, because the latter measures together assets and consumer goods, using values that are based on the existing distribution of income, while also failing to include intangibles such as negative or positive externalities. Referring to the same value of intangibles, Nordhaus and Tobin (1972) had reported the existence of activities beyond market transaction that also affected human and economic welfare and developed the Measure of Economic Welfare (MEW), as the forerunner of later measures of sustainable GDP, namely ISEW, GPI or other. With the way GDP had been used up to date, it had confounded growth with development (Costanza et al., 2009) or prosperity with growth (Jackson, 2012).

Daly and Cobb were the creators of sustainable economic welfare index (ISEW). Posner and Costanza (2011) provide a summary–review of studies till 2008, that use the ISEW or GPI measure and the interested reader should turn to them for an overview. Among the ISEW studies from 2009 up till today, are: Beça and Santos (2014) for Portugal (1960–2010), Gigliarano et al. (2014) for regional Italy (1999–2009), Bleys (2013) for Flanders, Belgium (1990–2009), Pulselli et al. (2012) for Tuscany, Italy (1971–2006) and others.

Currently, the ISEW studies, except for the fact that they expand as national applications of acceptable measures of sustainable welfare for different countries, they aim to enrich the ISEW aggregate indicator with more sophisticated variables and measurements. The challenge lies in agreeing upon common measurements across nations, not only on the most objectively measured components of the ISEW, but most importantly on the social variables included in some of its versions.

The rest of the paper consists of Section 2 which describes the way ISEW is designed for Greece, Section 3 presents the results and analysis of the Greek ISEW compared to GDP and Section 4 concludes the paper.

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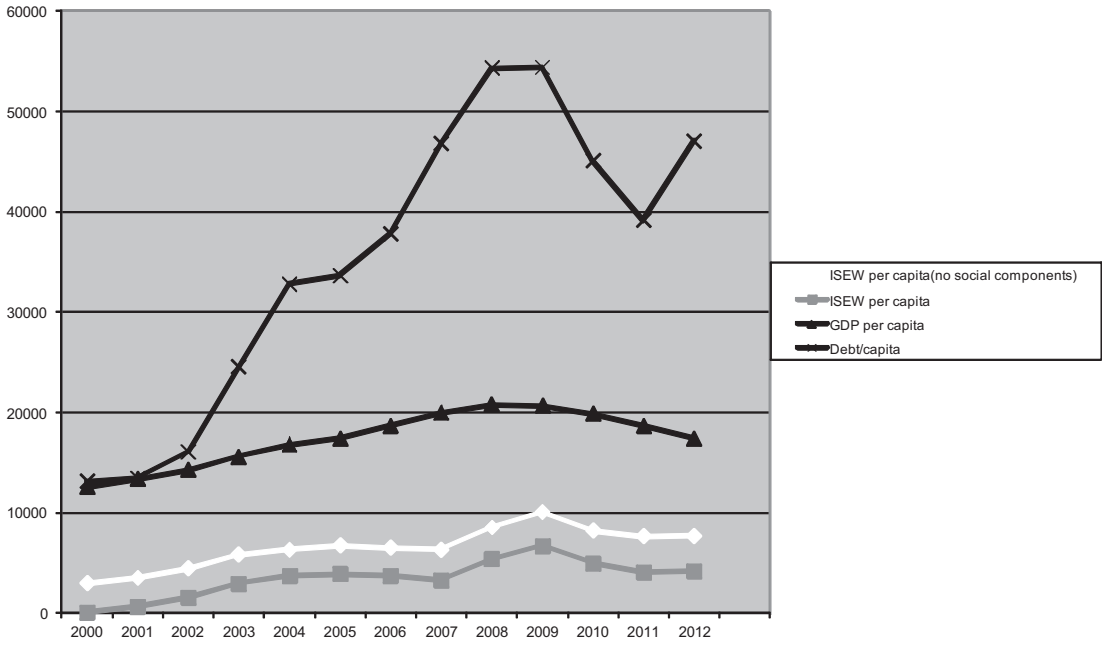

Fig. 1. Greek GDP and the two version ISEWs per capita for the years 2000–2012.

2. The definition of the ISEW for Greece

There are various approaches in literature for the construction of the ISEW and other relevant indexes. The variety of structure can be enormous depending on the measurements obtainable for various magnitudes in each country. Greece is one of the countries, where a lot of social economic magnitudes remain only at the academic realm and they are not provided by official statistical agencies. Therefore, for this analysis, we make adaptations for some of our ISEW social components which we explain in Table 1 and its notes.

We formally propose the Greek ISEW as follows:

$$\text{ISEW} = C_w + G_{eh} + K_n + S - N - C_s,$$

where C_w is the weighted consumption, G_{eh} stands for non defensive public expenditure, K_n is the net capital growth, S is the unpaid work benefit, N is the depletion of natural environment and C_s is the cost from some measurable social problems. This formation is also proposed in many other studies such as in Pulselli et al. (2012), only that these authors include many more social and environmental variables which were available at a regional level in Italy. A similar formation takes place in Gigliarano et al. (2014). Again this study hosts a larger variety of environmental and social data that could not be obtained for Greece, due to the lack of reliable statistical data of that type. Moreover, Nourry (2008) follows the same procedure for France. In all these studies, substantial differences are observed between the ISEW and the traditional GDP, thus providing evidence that there is a difference between the sustainable and economic welfare.

3. Results

This section aims to highlight and explain the huge difference observed between the ISEW/capita, ISEW/capita (with no social cost components) and GDP/capita for 2000–2012 (Fig. 1) in Greece. The reason we are using two versions of the ISEW, is because we

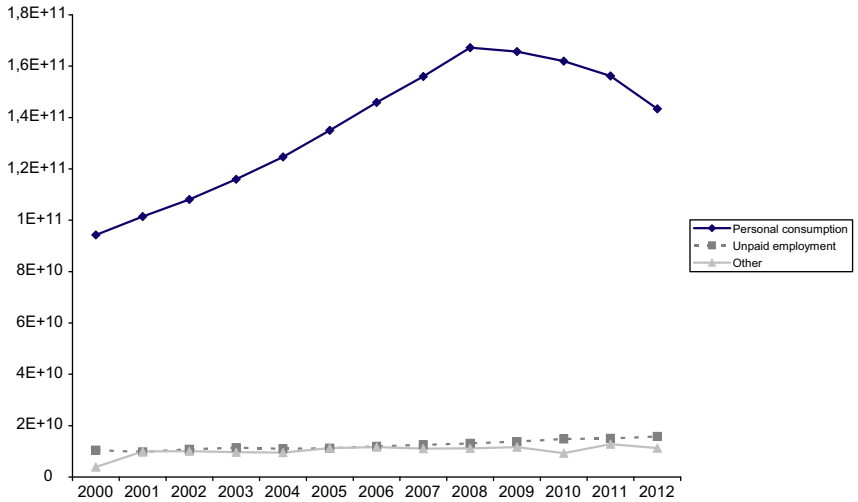

Fig. 2. Benefit components of the Greek ISEW.

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