

# **Institut ekonomických studií**

## **Fakulta sociálních věd, Universita Karlova Praha**

### **Referee report on the Bachelor Thesis submitted to State Exam**

<b>Student Name:</b>	<b>Martin Baletka</b>
<b>Thesis Supervisor Name:</b>	<b>Doc.Ing. Tomáš Cahlík CSc.</b>
<b>Thesis Title:</b>	<b>Gross Domestic Product As A Welfare Index: Beyond GDP</b>

#### **Overall Evaluation:**

The topic is indeed very interesting and challenging. The bachelor thesis provides a brief review of indicators on progress particularly contrasted to GDP. Critics of GDP and national accounting system is quite vague, the alternatives to GDP are described very briefly as well without any in depth and critical evaluation of concerned indexes/indices. The main shortcoming of the thesis is a lack of economics that would support development of alternative indicators, especially widely discussed Genuine Savings being based on standard concept of sustainability by Hartwick. Widely discussed concepts of defensive expenditures, various concepts of sustainability and GDP adjustment that would be based on economic theory is indeed missing in this work.

After the introduction, Section 2 provides brief history of GDP. I underline the "brief" because all is said on 1 and half page without any word spent on development of national accounts (with its origins in XVIII century). Section 3 then provides in another 3 pages again very brief definition of GDP. Again key fundamentals are missing, i.e. no word about SNA, or its European counterpart ESA95. Three key approaches how to compile this aggregate from national accounts (sum of expenditures, revenues, or value added) is missing too. By the way, I consider author's original idea for his thesis interesting, but quite useless due to the fact that GDP is compiled from national accounts that all follow standard accounting rules (as described by ESA95 in the EU, or SNA (UN 1993). Although I am not an expert on national accounting, I think that imputed rent is already a part of the European ESA95 system, at least as a part of its analytical accounts (see 3.3).

In my opinion, Section 4, especially Chapter 4.3, should be the key part of the thesis, but unfortunately it does not so. The author highlights two sources of critics of GDP; but while the first still lacks the key ones, the later is not a critic (any indicator can be abused for any purpose). First of all, there are two reasons for GDP adjustments.

- The first, welfare-based adjustments discuss contribution of certain item to welfare, utility, or happiness, i.e. some items are missing (e.g. unpaid work), other are in there but one thinks they should not be (externalities, defensive expenditures), another should be reclassified (expenses on durables versus service flows). Most of them have been mentioned – in brief again –, but widely discussed defensive expenditures, or so called 'intermediate' or 'regrettable' expenditures (Nordhaus and Tobin, 1972; Mishan 1982; Leipert 1989; ...) have not been mentioned at all. This discussion would be very welcome in the thesis because i] most of widely discussed alternatives such as NEW, GPI or ISEW – which are also described in Section 5 of the thesis – consist of the adjustments due to defensive expenditures, and ii] there is critics to do so (e.g. Harrison, 1989; Vanoli, 1995; Mäler, 1991).
- The second adjustments are sustainability-based. There is huge literature on this subject (e.g. Pezzey, Toman, Maller, Neumayer,...), but the thesis do not mention the one. I would expect the author at least makes a distinction between the weak concept of sustainability (Hartwick-Sollow concept) and the strong one (Pearce, Daly, Cobb,...), or even the very strong concept, where a substitutability of various forms of capitals and the properties of production function are the key point that would be good to discuss. Following the form of sustainability determines the indicator of sustainability and/or sustainable development (and the GDP alternative too). Moreover, gross versus net national product is not mentioned too. Again similarly to consumption of fixed capital that is a state-of-the-art adjustment, the resource depletion, computation of resource rent, and resource-based adjustments of GDP are not mentioned at all (e.g. the key literature by Hotelling 1931; El Serafy 1989 etc.).

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Section 5 provides a list of alternative measures, but without deeper and critical evaluation of these measures. It begins with the approaches that correct GDP, continues with composite indexes that use GDP and ends with a measure that does not use national accounts and its aggregates at all.

- GDP corrections - NEW is indeed the one that should not be missing here, but I would expect the author reads the original work by Nordhaus and Tobin (1972), and not to quote a book on macroecon. If GPI is mentioned why not to mention ISEW (Cobb and Daly 1989) that was used in fact to construct GPI later? Is GPI (or ISEW) really adjust GDP or is it rather new composite index? I am missing GS (or ANS) being proposed by World Bank. What about hybrid modelling such as *Hueting's (1980)* Sustainable National Income, or new hybrid approach as proposed e.g. by Gerlagh et al., etc.?
- Composite indexes – HDI is described without proper critical assessment. Described differences in ranking by GDP and HDI is quite interesting but descriptive. Description of the others (GDI, GEM, HPI) would require more space to provide details.
- GDP free measures – I would appreciate the author critically assess GNH, or skip this chapter at all.

I recommend the thesis for the defense and suggest grade **B** ("velmi dobře").

#### SUMMARY OF POINTS AWARDED:

CATEGORY	POINTS
<i>Literature</i> (max. 20 points)	7
<i>Methods</i> (max. 30 points)	15
<i>Contribution</i> (max. 30 points)	22
<i>Manuscript Form</i> (max. 20 points)	16
<b>TOTAL POINTS</b> (max. 100 points)	<b>60</b>
<b>GRADE</b> (1 – 2 – 3 – 4)	<b>2</b>

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(Signature – Defense Opponent)  
Milan Ščasný, PhD.

Evaluated on September 2<sup>nd</sup>, 2010.