Romania’s National Wealth: Considerations Concerning the World Bank Study

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Abstract:
The study of the World Bank made in 2006 aims at answering an extremely complex question: what is the nations’ wealth? On the basis of the answer to this question the authors of this study are trying to study the development sustainability degree reached by different countries of the world. The estimations regarding the wealth of the nations are based on a three parts decomposition of the wealth in produced, natural and intangible capital and they prove that the last one has the largest share and exerts the strongest effects on the development quality. In the present work we are bringing arguments that Romania doesn’t have a solid enough wealth compared to regional and world tendencies.

Key words: produced capital, natural capital, intangible capital, national wealth, competitiveness.

JEL: C00, N10, O11.

1. Introduction
In crisis periods, like the one the world presently passes through, when economies decrease and income compresses, an evaluation of the countries’ wealth from novel perspectives is useful. According to a study made by the World Bank, many countries, Romania included, have a more important wealth than the one suggested by the traditional macroeconomic indicators, like the Gross Domestic Product. In the mentioned study the national wealth for 120 countries are estimated, reaching the conclusion that most of them may be explained on the basis of intangible elements, being found, for instance, in the social capital and in the work force abilities.

The wealth means a bit more than the simple capitalization of some income. The wealth is formed of the total actives generating income or having an income generating potential [5]. As far as income is concerned, it not only represents positive monetary flows, but also goods and services flows received by an economic actor, like a country or a company. The income flow essential characteristic, whatever their origin and contents may be, is the sustainability degree [1]. Following this logic, the national wealth is also carried out in population’s educational level, in the efficiency of the administrative system, in the country’s natural resources, etc. The wealth of the country is manifested in the material patrimony, as well as in the natural or cultural patrimony, the last one having an immaterial character, aspect that renders its quantification in monetary terms more difficult, but does not decrease its importance at all as a fundamental source of the national wealth. In this
material we are dealing with the characteristics of the national wealth having as a reference the study Where is the wealth of nations? made by the World Bank in 2006.

2. The methodology used by the World Bank

For the national wealth estimation method, the specialists of World Bank admitted the following basic hypothesis: the wealth represents the present value of the future consumption [2]. Consequently, the following wealth calculation relation was used (1):

\[ W_t = \int_{t}^{\infty} C(s) \times e^{-r(s-t)} ds \]

where:
- \( W_t \) = total national wealth in year \( t \)
- \( C(s) \) = consumption in year \( s \)
- \( r \) = social investments profitability rate
- \( e \) = Euler's number or Napier's constant (\( e \approx 2.7182818284 \ldots \))

As far as the produced capital is concerned, its stock was usually derived from the historical investments with the help of the perpetual inventory method (Perpetual Inventory Model - PIM), meaning that the stock level at a certain moment is determined by the initial stock where the capital inputs are added (gross investments) and from where the outputs are deducted (capital liquidation). The structure of the produced capital is the following: technological equipment and supplies, the economical understructure and the economic quality of the urban land (Urban Land). The produced capital results from the total value of these three constituting elements.

In the structure of the natural capital the following elements were included: protected natural areas (directly estimated at an opportunity cost); energetic resources (directly estimated at the present net value); mineral resources (directly estimated at the present net value); forest resources (directly estimated at the present net value); arable land (directly estimated at the present net value); pastures (directly estimated at the present net value); water resources (indirectly measured as a percentage of the aggregated value of the directly estimated elements); services ensured by ecosystems (indirectly measured as a percentage of the aggregated value of the directly estimated elements). The following elements of the natural capital were not included in the evaluation: fish growing and diamonds reserves. The determination of the actual value of the natural capital elements was based on their physical stock and on the revenue estimated to be obtained from their exploitation (the revenue was calculates as the difference between the world prices and local costs). The updating ratio used was 4%.

The national wealth calculating procedure implies taking the following steps:
- determination of the produced capital value;
- determination of the natural capital value;
- estimation of the total national wealth;
- establishment of the intangible capital value as a residual factor (2), respectively as a difference between the total national wealth and the sum of produced and natural capitals:

\[ \text{Intangible capital} = \text{Total national wealth} - (\text{Produced capital} + \text{Natural capital}) \]  

Upon agreement, the length of time calculated for the provisional estimation of the national wealth and its produced and natural elements was 25 years (from the year 2000 up...
to the year 2024). These are, basically, the main technical elements that form the methodology of the World Bank for the estimation of the national wealth.

3. The world wealth composition: Romania’s position

1) The national wealth of a country may have the following three sources or components: the produced or created capital, what countries generate in the productive processes and materializes in equipment and technical endowments, economic substructure and urban environment economic quality;

2) the natural capital, formed of elements like arable lands, energetic and mineral resources, protected natural areas, etc.

3) the intangible capital, difficult to estimate in monetary terms, but which represents the most prolific source of wealth and is based, among others, on the quality of the human resources, the consistency of the social capital, citizens trust in institutions.

In an exercise of quantification of these three dimensions of the national wealth, World Bank reached the conclusion that, according to the data available in the year 2000, 4% of the world wealth goes to the natural capital, 18% to the produced capital and 78% to intangible capital (table 1).

<table>
<thead>
<tr>
<th>Income group</th>
<th>Natural capital</th>
<th>Produced capital</th>
<th>Intangible capital</th>
<th>Total wealth</th>
<th>Natural capital share</th>
<th>Produced capital share</th>
<th>Intangible capital share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income countries</td>
<td>1925</td>
<td>1174</td>
<td>4434</td>
<td>7532</td>
<td>26%</td>
<td>16%</td>
<td>59%</td>
</tr>
<tr>
<td>Middle-income countries</td>
<td>3496</td>
<td>5347</td>
<td>18773</td>
<td>27616</td>
<td>13%</td>
<td>19%</td>
<td>68%</td>
</tr>
<tr>
<td>High-income OECD countries</td>
<td>9531</td>
<td>76193</td>
<td>353339</td>
<td>439063</td>
<td>2%</td>
<td>17%</td>
<td>80%</td>
</tr>
<tr>
<td>World</td>
<td>4011</td>
<td>16850</td>
<td>74998</td>
<td>95860</td>
<td>4%</td>
<td>18%</td>
<td>78%</td>
</tr>
<tr>
<td>Romania</td>
<td>4508</td>
<td>8495</td>
<td>16110</td>
<td>29113</td>
<td>15%</td>
<td>29%</td>
<td>56%</td>
</tr>
</tbody>
</table>


No matter the income level in the countries analyzed in the study of the World Bank, the weight of the produced capital is almost the same in all countries, being comprised between 16% and 19% (of course, significant differences appear when comparing the per capita absolute values). In exchange, things are not the same when speaking of the natural capital. In countries with a low income level, natural resources represent a significant part of the national wealth (26%), evidentiating an emphasized dependency of those countries on this capital, while in countries with a high income level the natural capital represents only 2% as an average. Although the intangible capital of the countries analyzed represents the highest part of their national wealth, in countries with a high income level this capital provides an average of 80% of the wealth, in countries cu
average and low income only 68% and respectively 59%. According to the World Bank data, rich countries are richer due to the aptitudes and capabilities of the population and to the efficiency of the institutions that support the economic activity. In other words, the intangible capital stimulates the economic efficiency and the income generation potential of the produced capital and of the natural capital, having as a main effect a greater wealth. The weight of the intangible capital grows with the country’s income, retroactively feeding their level and functioning as a main „engine“ of the development. This is the main conclusion drawn by the annalists of the World Bank.

Where does Romania stand in the context of the resultants obtained by the World Bank? The evidences cannot be contested: Romania offers a odd cocktail of figures that place it somewhere between the average and low income level countries.

Following this line, Romania’s total national wealth (per capita) represents 29113$, respectively 105,42% compared to the average level of the specific average income level countries (27616$). Yet, compared to the world average, the national wealth of Romania constitutes only 30,37% and only 6,63% compared to the level of the countries with a high income level. The natural capital of Romania, with 4508$ per capita and 15% of the total national wealth, sets the country slightly above the levels recorded in the average levels group (3496$ per capita and 13% in total).

The produced capital of Romania owns 29% of the total national wealth, a weight that is much higher than the world average (18%), countries with average income level (19%) and countries with a high income level (17%). And yet, if we compare the per capita values, the produced capital accumulated by Romania (8495$) is only higher than the level of the average income level countries (5347$), representing only 50,41% of the average world level and 11,15% of the average level specific to the countries with a high income level.

But the figures related to the intangible capital bring Romania close to the countries with a low income level: the intangible wealth of Romania only represents 56% of the total national wealth, even a bit less than the average level (59%) observed in countries with a low income level and much below the level of the average income countries (68%), the world average (78%) and the level of the countries with a high income level (80%).

The comparison is even more shocking if it is made on the basis of the absolute values calculated per capita: thus, the intangible capital per capita (16110$) of Romania, constitutes only 85,81% of that observed in average income countries (18773$), 21,48% of the world level (74998$) and only 4,56% of that characteristic to the countries with a high income level (353339$).

The results of the comparisons made suggest that Romania has an anachronistic structure of the national wealth. This structure does not offer the best conditions for simultaneously ensuring economic, social and ecologic consistency of the development, respectively of its sustainability.

The deficit mentioned is explained by an absolutely unsatisfying level of the accumulation and profitability of the intangible capital of Romania, which at present constitutes by far the main source of the national wealth of the countries. The disparities are deeper and deeper if Romania is compared to the first 10 countries in the world classification of the national wealth (table 2).
Table 2 Total wealth: Top 10 countries and Romania, 2000

<table>
<thead>
<tr>
<th>Countries (in descending the total wealth)</th>
<th>Total wealth per capita ($)</th>
<th>Natural capital (%)</th>
<th>Produced capital (%)</th>
<th>Intangible capital (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>648241</td>
<td>1</td>
<td>15</td>
<td>84</td>
</tr>
<tr>
<td>Denmark</td>
<td>575138</td>
<td>2</td>
<td>14</td>
<td>84</td>
</tr>
<tr>
<td>Sweden</td>
<td>513424</td>
<td>2</td>
<td>11</td>
<td>87</td>
</tr>
<tr>
<td>United States</td>
<td>512612</td>
<td>3</td>
<td>16</td>
<td>82</td>
</tr>
<tr>
<td>Germany</td>
<td>496447</td>
<td>1</td>
<td>14</td>
<td>85</td>
</tr>
<tr>
<td>Japan</td>
<td>493241</td>
<td>0</td>
<td>30</td>
<td>69</td>
</tr>
<tr>
<td>Austria</td>
<td>493080</td>
<td>1</td>
<td>15</td>
<td>84</td>
</tr>
<tr>
<td>Norway</td>
<td>473708</td>
<td>12</td>
<td>25</td>
<td>63</td>
</tr>
<tr>
<td>France</td>
<td>468024</td>
<td>1</td>
<td>12</td>
<td>86</td>
</tr>
<tr>
<td>Belgium-Luxembourg</td>
<td>451714</td>
<td>1</td>
<td>13</td>
<td>86</td>
</tr>
<tr>
<td>Romania</td>
<td>29113</td>
<td>15</td>
<td>29</td>
<td>56</td>
</tr>
</tbody>
</table>


The results regarding the national wealth of the 10 richest countries in the world are somehow surprising. Switzerland leads the classification, being the best performing country among the OECD members. Denmark and Sweden – both from Scandinavia and both European Union members – are also on top of the list, followed by United States and Japan. The national wealth composition is highly consistent, no matter the country, except Norway and Japan. The natural capital of Norway, due to the petrol and gas reserves in North Sea, amounts to 12% of the national wealth of the country. Japan is different due to a very high weight of the produced capital – 30% of the total national wealth. On the other hand, the case of Japan proves that a country can also sustain its development without natural capital, only counting on the produced capital and on the intangible capital. As a matter of fact, in all countries in the classification (except Norway) the weight of the natural capital is between 0 and maximum 3%. In exchange, in most countries in the classification the weight of the intangible capital is higher than 80%, the highest weight being observed in Sweden – 87%. The relatively low level of the intangible capital in Japan and Norway (69% and 63%), is compensated by a solid produced capital (30% and 25%), the fact that both countries reached a very high degree of industrialization and they are both net exporters of manufactured products being well known.

4. Conclusions

Considering the empiric proofs presented, the resemblance between the structure of the national wealth of Romania and the composition of the national wealth of Norway and partially that of Japan is only apparent. It is enough to compare the per capita wealth of the three countries: 493241$ for Japan, 473708$ for Norway and only 29113$ for Romania, which means that Romania’s national wealth per capita is 5.9% of that of Japan and 6.1% of that of Norway. The differences are even greater if the comparison is made with the first three countries in the classification – Switzerland, Denmark and Sweden: 4.49%, 5.06%
and 5.67%. At the same time, the huge difference between the development degree of the intangible capital of Romania (only 56% of the national wealth) and the participation of this capital in the formation of the national wealth of the richest countries on the globe (more than 80%) is obvious. As we have already presented, this gap is the direct expression of the limited potential of Romania to ensure a long lasting, equilibrated development. The insufficient level of the intangible capital of the country does not facilitate the superior use of the material and natural potential. In the conditions of an inconsistent intangible capital, any economic growth process in Romania not only shall have a low sustainable character, but it will also be fragile, subject to an increased sensitivity to the numerous internal and external risks. It is well known that the intangible assets of a company or of a country have as an essential characteristic the high volatility – the natural disposition towards a fast depreciation [3]. If Romania shall not succeed in accumulating in a relatively short historical period a critical mass of intangible capital, through an investing effort and adequate institutional construction, the country risks suffering a substantial deterioration of the small intangible capital it has. The evolutions observed during the last decade, culminating with the disastrous effects produced by the world economic crisis, seem to confirm these pessimistic conjectures.

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