THE WEALTH OF NATIONS – AN APPROACH BASED ON THE INTERNATIONAL VALUATION STANDARDS

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Abstract

The paper proposes a new approach to the valuation of the efficiency of a national economy by using the corrected net asset method (ANC) recommended by the international valuation standards. The author starts by noticing that the main statistical indicator currently used for assessing a country's economic status, namely gross domestic product (GDP), is an indicator of the value of the produced output, without really reflecting the patrimonial status of the subject. Unlike states, companies are required by law to present two basic documents: a balance sheet, with assets and liabilities, and a profit and loss account, which reflects the revenues and expenditures generated. Should a balance sheet-type document be presented by the state, reflecting both assets and liabilities, a corrected net asset value (ANC) could be calculated. The evolution of a national economy could be traced by following this indicator over a period of time (ANC_n - ANC_{n-1}). As a consequence, when assessing, for example, the evolution of the national economy, we will compare not only GDP_{2018} with GDP_{1989}, but also the evolution of the net asset position of the Romanian state over the same period, i.e. ANC_{2018} with ANC_{1989}.

Keywords: *valuations of national economies, net asset value, Gross Domestic Product, asset based valuations, national assets.*

JEL Classification: H83, H87, K23, K33

1. Introduction

Financial Statements. The international financial reporting standards (IFRS) set a very rigid frame for the way that economic agents present their financial statements. These entities, private or state owned corporations, banks, investment funds etc. are bound by law to present annual financial statements in a standardized synthetic nature, and if they reach a certain dimension, to audit them by chartered specialist.

The main financial statements presented by economic agents are the balance sheet and the profit and loss account. Without citing the IFRS definitions we will synthetically state that the balance presents the situation of the companies' assets and liabilities in a certain year (let's say year n, be it 2018) in comparison with the situation of the previous year (n-1). By comparing the two moments, n and n-1, a conclusion can be reached regarding the evolution of the assets value (land, buildings, industrial equipment, financial assets etc.). A similar conclusion can be reached by observing the evolution of the liabilities.

Unlike the balance sheet, which captures the assets and liabilities of a company at a given point in time (that is, it has a static character), the profit and loss account seeks to identify the economic activity generated over the same period of time. In general terms, the profit and loss account shows the income and expenses incurred by the economic agent, i.e. the economic activity generated using the patrimony photographed through the balance sheet. Therefore, we can say that the financial statement identified in the profit and loss account has dynamic nature. The difference between the philosophy and the goals of the two types of financial statements can be conceptualized by imagining a trading company with significant, unused, preserved assets. This firm would present significant amounts in the balance sheet but would have an insignificant impact on the profit and loss account.

Approaches to business valuations. According to international valuation standards (GEV 600 - Enterprise Evaluation), business valuation is based on the two types of financial statements presented. ANEVAR assessment standards taking on GEV 600 recommendations indicate "The value must attach particular importance to the financial statements of the enterprise subject to the valuation. There are three purposes of financial analysis and financial statement adjustments:

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a. Understanding the relationship between the items in the profit and loss account and the balance sheet, including the trends that have occurred over time, to assess the risks inherent in the business, as well as future financial perspectives;
b. Comparison with similar businesses to establish key factors that could influence value;
c. Adjustment of historical financial statements to reflect the future performance and prospects of the enterprise"[2].

The same international standards regulate the **three types of approaches to valuations**: the market approach, the income approach and the asset approach.

According to C15, SEV 200, "**the market approach** compares the subject company to similar entities, with companies having similar participations in the market, as well as any relevant transactions with shares of the subject company"[3].

Income-based approaches attempt to estimate the value of a company based on its ability to generate profit over a predictable period of time. The present value of projected profits is calculated based on various criteria, mainly the cost of capital and the risk factors. ANEVAR standards specify: "The income approach estimates the value of an enterprise or equity by calculating the present value of future economic benefits. The two common approaches to income approach are: the capitalization of economic benefits and the updated cash flow method"[4].

Finally, the **asset based approaches** attempt to assess the value of a company at a given moment through the difference between the assets of the company and its debts. This approach is also called the **net asset approach** because it is summing the values of the company's assets and liabilities.[5] The document underlying asset-based assessments is the balance sheet of the company: "In applying the asset approach, the balance sheet prepared in accordance with the accounting policies adopted by the enterprise is adjusted to reflect all tangible, intangible and financial assets, and all liabilities, at market value or at an appropriate value"[6]. By applying these adjustments, the company's net assets become net-corrected assets (ANC), hence the most used name of this patrimonial valuation methodology, the "**ANC method**".

The main national economic indicators. Unlike the corporations whose economic activity is strictly monitored and measured through the extremely rigid frameworks of the balance sheet and the profit and loss account, the measurement of the economic activity of a state is carried out through a heterogeneous mixture of main economic indicators. The Economist[7] identifies the following basic categories:

- indicators for measuring economic activity (production, expenses and income);
- Economic growth indicators (primarily GDP Gross Domestic Product);
- population, employment and unemployment indicators;
- fiscal indicators (public expenditures, government revenues, deficits);
- consumption indicators (personal income, consumption and personal expenses, savings);
- indicators of industry and trade;
- external balance of payments;
- exchange rates;
- Monetary and financial markets (M0 ... M5, money, interest rates);
- prices and wages (inflation, etc.).

A comparison between the financial statements presented by the companies and which offer the basis for their valuation, and the way that national economies are presented and valuated, shows fundamental differences:

[2] ANEVAR, *Standardele de Evaluare*, Bucharest, 2018, p. 159
[3] *Idem*, p. 161
[4] *Idem*, p. 163
[5] According to ANEVAR standards: "the individual value of assets and liabilities arises from the application of one or more of the main valuation methods as described by SEV 100, before being summed up". ANEVAR, *Standardele de Evaluare*, Bucharest, 2018, p. 165
[6] *Ibidem*.
[7] The Economist - *Guide to Economic Indicators*, London, Profile Books, 2006.

First of all, it is noticed that the economic performance of the states is not valued on a balance sheet basis. States do not present a balance sheet. The indicators of the national economy are more about the dynamics of industrial activity (GDP), prices (inflation), the use of industrial and labor capacities (unemployment) and the cost of credit (interest). In other words, the economic indicators of the states (we will continue to show why we prefer this terminology to the national economic indicators) focus rather on the dynamics of the economic activity, similar to the second type of financial situation presented by the companies, corresponding to the account profit and loss account.

Of course, as an important element of national accounting, states have consolidated general budgets, but they are also corresponding to income and expense statements, not balance sheets. Among the patrimonial elements reflected by the main economic indicators, government debt offers the highest degree of transparency (corresponding to a balance sheet liability position).

As there is no state balance sheet, there is no standardized way of presenting state assets. One of the documents that aims to present some of the assets of the state is the Statistical Yearbook compiled by the National Institute of Statistics. This is in no way an equivalent of the companies' balance sheet, as it doesn't offer the same level of information synthesis, value quantification and standardization. By using its own methodology, it offers a heterogeneous set of data ranging from the length of rivers and lakes, population structure, various production and financial indicators, etc.

In the absence of a balance sheet, the state is unable to present a net asset. But is this really impossible? Moreover, does this absence have real effects on assessing the economic performance of a state?

2. Patrimonial valuations and state assets

The following assets are reflected in the balance sheet of an economic agent:

A. Fixed Assets with Subcategories

I. Intangible assets
II. Tangible assets (land and buildings, technical installations and machinery, real estate investments, tangible fixed assets, productive biological assets, etc.)
III. Financial assets (equity, loans, etc.)

B. Current assets

I. Stocks (raw materials and finished products, production in progress)
II. Receivables (trade receivables, cash receipts etc)
III. Short-term investments
IV. Cash & Bank

Debts in turn are structured according to the remaining maturity period into two categories:

C. Short-term debts (bonds, amounts owed to credit institutions, advances received, tax and related commercial debts, etc.)

D. Long term debts.

From the revaluation of the assets and liabilities a corrected balance sheet can be calculated, and by their subsequent summation, results a net corrected asset ANC, where ANC = $\text{Assets}_{\text{Corrected}}$ +/- $\text{Debts}_{\text{Corrected}}$. The corrected term relates in fact to the correction between the book value and the fair value, preferably a market value, of the balance sheet items.

Is it possible to present the state patrimony in the form of the abovementioned balance sheet, and if so, is it possible to calculate a net asset of the state? Would this allow a more complete picture of its economic situation?

We will begin our approach with the observation that the main indicator of a country's economic activity, namely Gross Domestic Product (GDP), is unable to replicate major changes in the state's patrimonial situation. For example, if oil resources in the size of Saudi Arabia were discovered in Romania in 2018, this would remain completely unidentified in GDP, an indicator that would not change in any way. The same would happen in the case of an unwanted earthquake or a serious environmental accident at a mining operation. Paradoxically, however, the reconstruction of the population's flats or the subsequent greening, generating expenses, would trigger an increase in the GDP indicator.

GDP, ironically described by The Economist as "Gross deceiving product"[8], only takes into account the annual production, It is computed either by summing to the added value produced by every economic agent, the total expenditures or the total revenues generated. According to *The Economist*: "Total economic activity may be measured in three different but equivalent ways. Perhaps the most obvious approach is to add up the value of all goods and services produced in a given period of time, such as one year. Money values may be imputed for services such as health care which do not change hands for cash. Since the output of one business (for example, steel) can be the input of another (for example, automobiles), double counting is avoided by combining only "value added", which for any one activity is the total value of production less the cost of inputs such as raw materials and components valued elsewhere. A second approach is to add up the expenditure which takes place when the output is sold. Since all spending is received as incomes, a third option is to value producers' incomes. Thus output = expenditure = incomes"[9].

GDP is therefore a dynamic indicator, it is trying to reflect **what is being produced in a national economy** over a period of time in the currency of that state, hence the main difficulty of comparing national economies denominated in different currencies**. It does not reflect what the state possesses, but only its ability to produce and sell**. Another major shortage of GDP is its inability to reflect self-consumption. For example, a fruit produced and consumed in one's own household is not taken into account, but it becomes a GDP generator and "economic growth" if bought from a supermarket. But if self-consumption can be considered to be below a threshold of statistical materiality in contemporary economies, events such as the discovery of immense natural resources or fundamental systemic economic changes such as those suffered by Eastern European countries in the 1990s through the privatization of state property, are certainly major economic events not reflected in the main economic indicator used in assessing national economies.

Let's see how Romania's economic picture would change if we try to appreciate economic developments based on a net corrected asset (ANC).

Assets$_{1989}$	**Debts $_{1989}$**
Fixed Assets	Debts of the Romanian state$_{1989}$
Identified natural resources$_{1989}$	Debts guaranteed by the state$_{1989}$
Land$_{1989}$	
Buildings$_{1989}$	
Other fixed assets$_{1989}$	
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Financial assets	
Shares at state owned companies$_{1989}$	
Receivables from other states$_{1989}$	
Cash & Bank$_{1989}$	
Other assets	
Total/Working age population/$_{1989}$	
Intangible assets$_{1989}$	

Romania's net asset value in 1989 was ANC$_{1989}$ = Assets$_{1989}$ – Debts$_{1989}$. The debts of the Romanian state in 1989 were virtually nil or negligible, hence the net asset was virtually equal to the sum of state assets.

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[8] *Idem*, p. 28.

[9] *Ibidem*.

For the moment, we are setting aside the quantification problems and think of a balance sheet in physical units. At 30 years of difference, in 2019, a balance sheet of the Romanian state's patrimony would be shown in the following way. Assets:

$Assets_{2019}$
Fixed Assets Identified natural $resources_{2019}$ $Land_{2019}$ = $Land_{1989}$ – land sold/privatized/ given back + land acquired by the state $Buildings_{2019}$ = $Buildings_{1989}$ – apartments sold to population, buildings returned to previous owners, sold + new state owned buildings ….. **Financial assets** Shares at state owned companies $_{2019}$ = Shares at state owned $companies_{1989}$ (-privatized companies/ sold/liquidated + new state companies and state participation) Receivables from other $states_{2019}$ Cash & $Bank_{2019}$ …. **Other assets** Total/Working age population/$_{1989}$ Intangible $assets_{1989}$

The liability side of the balance sheet is much easier to quantify[10]:

Debts $_{2019}$
Long term external $debt_{2019}$ = 34,424 mld Euro Debt guaranteed by the $state_{2019}$= 0,341 mld Euro Private debt not guaranteed by the $state_{2019}$ = 30,257 mld Euro Short term $debt_{2019}$ = 31,357 mld Euro

The corrected net asset value in 2019 is ANC_{2019} = $Assets_{2019}$ – $Debts_{2019}$.

It is not the objective of this study to enter into the details needed to propose in extenso a new national accounting system. However, it is sufficient to point out that the difficulty of evaluating patrimonial elements and possible approximations do not invalidate the merits of such an approach. As far as we are concerned, we would like to point out a few elements that we consider important. Among the assets held by the Romanian state during the studied period were substantially diminished:

- land (through sales and retrocessions);
- buildings (through sales of apartments to the population, retrocessions, etc.)
- participations in affiliates (through privatization/liquidation)
- claims on other states, etc.

A special case is the loss of population, as far as we consider, at least the working population, as a national asset.

At the same time, both state and state guaranteed debt, as well as private debt, increased significantly.

A whole series of discussions can be initiated on how to reflect/quantify the national patrimony in the balance sheet asset. For example, if we propose a current balance sheet, it would be quite difficult to quantify the value of the land owned by the Romanian state at a market value.

[10] According to statistics published by the Romanian National Bank: https://www.bnr.ro/Datoria-externa---BPM6-11333.aspx (last accessed 06.04.2019).

Even more complicated it is to evaluate at a market value of the past (1989 for example), for the same asset positions, due to the absence of a real market at that time. The same is true for construction and, of course, for state owned companies. However, the valuation methodology provides solutions to such problems: buildings and businesses can be valued at non-market values, for example, the value of the reconstruction depreciated accordingly, etc.

The difficulties of presenting a net corrected asset, i.e. a synthetic patrimonial situation, are not necessarily higher than those related to the calculation of GDP. The same can be affirmed about the inaccuracies it generates. The imprecision inherent in comparing the patrimonial situation of the state between 2019 and 1989 is not bigger than the inaccuracy of comparing GDP over the same period of time. I would say quite the contrary.

We also note that a patrimonial valuation of the state's net assets manages to capture important macroeconomic changes such as the discovery of new natural resources, the impact of major natural disasters, etc., systemic changes not captured by the GDP.

3. Economic efficiency as net asset difference

In the economic doctrine there are two guidelines for calculating economic efficiency over a certain period of time. First, it follows the evolution of profitability: $\text{Profit}_N = \text{Income}_N - \text{Expenses}_N$. Another perspective is the evolution of shareholder equity, that is to say, of the net asset, over the same period of time.

From the perspective of a property valuation, the increase in value over a period of time is given by the net asset gap between the beginning and the end of the analysis period.

$$\textbf{Economic Gain/Loss} = \Delta\textbf{ANC} = \textbf{ANC}_{\textbf{N}} - \textbf{ANC}_{\textbf{N-X}}$$

For example, the benefit of the Romanian state in the "transition period" from 1989 to 2019 is the equivalent of its "equity" evolution, ie the difference between the net asset in 2019 and the 1989 net asset.

$$\textbf{Economic Gain/Loss}_{\textbf{1989-2019}} = \Delta\textbf{ANC} = \textbf{ANC}_{\textbf{2019}} - \textbf{ANC}_{\textbf{1989}}$$

Following the evolution of the net asset over a period of time and the calculation of a net asset difference, ΔANC, actually simplifies the problems related to the quantitative valuation of physical indicators, because the units of measurments are identical.In the example given:

$$\textbf{Economic Gain/Loss}_{\textbf{2019-1989}} = \Delta\textbf{ANC} = \textbf{ANC}_{\textbf{2019}} - \textbf{ANC}_{\textbf{1989}} = \textbf{Assets}_{\textbf{2019}} - \textbf{Assets}_{\textbf{1989}} + (\textbf{Debts}_{\textbf{2019}} - \textbf{Debts}_{\textbf{1989}}).$$

In other words, the "economic gain/loss" would be the sum between the public debt accumulated in this period and the value of the assets out of the state patrimony.

Obviously, in the case of the Romanian state, which had significant outflows to all assets (land and buildings restituted/sold, privatized/liquidated enterprises) and at the same time recorded a continuous increase in external debt, the net asset gap is negative.

It is our opinion that such a valuation approach is applicable and advisable to all economies, not only the Romanian one.

4. Possible extensions of the scope of analysis and the possible problems involved

If, in the previous example, the impact on the net assets of the state is clearly negative, with significant outflows from the assets list in parallel with a significant increase in debt, the degree of uncertainty of the analysis increases when we broaden the definition of the state by substituting it with the term “nation”.

A patrimonial valuation of the "nation" or "the wealth of the nation" to use Adam Smith's term would require a unitary methodology to deal with complicated issues such as:

a. the inclusion in the balance sheet of assets and liabilities of individuals' Romanian citizens;
b. treatment of assets and liabilities of legal entities registered in Romania;
c. the treatment of assets and liabilities held by Romanian citizens and Romanian registered companies abroad;
d. treatment of assets and liabilities held by foreign citizens and foreign registered companies in Romania.

Such a widening of the area of analysis, from the patrimony of the state in a narrow sense to the wider "nation", implies major difficulties. A wider definition of the nation and heritage may raise new questions, for example: by selling to the public at an undervalued price of state-owned apartments in the early 1990s, the state's net assets declined indisputably; but did the net asset of the nation also fall?

In the author's opinion special attention needs to be drawn to the national intangible assets. Although almost impossible to quantify in value, the intangible assets directly affect economic behavior and state patrimony. The attention given and the funds allocated to informational wars and the spreading of a cultural paradigm are at least equal the attention allocated towards current account deficits. Proof of this are the international relations at the end of the Cold War, as well as the current US-China relationship[11]. The American victory in the Cold War was primarily an informational one, and the adoption of the capitalist system and the "privatization" of the assets of Eastern European countries was achieved without a direct military confrontation.

5. Conclusion

The calculation of the net asset value is the main method of patrimonial valuation of a company. This valuation method is based on the valuation of balance sheet's assets and liabilities. The difference in net assets between two different time frames is likely to provide an overview of the economic efficiency of a company.

The principles defined by the International Valuation Standards in the valuation of commercial companies can also be applied to the States. Periodic disclosure in a synthetic balance sheet of a state's assets is not only desirable but also possible. Although some physical parameters may be difficult to quantify in value terms, simply tracking these indicators may provide a valuable synthetic picture of the health of a national economy.

Presenting the national assets and debts in a balance sheet form and the tracking of their evolution can provide valuable information about the state of a national economy, currently undetected by the main economic indicators. Among the information offered and processes detected are: the discovery of mineral resources, the sale of land and buildings from the state patrimony, the sale of state holdings, contracting of unsustainable debts, etc.

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[11] See the interview by senior US diplomat Evan Faigenbaum, vice president of the Carnegie Endowment for International Peace, to the Russian Komersant newspaper on March 28 - https://www.kommersant.ru/doc/3924018 (last accessed 08.05.2019).