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ABSTRACT

Among the many explanations of the deep transformational recession in the post-communist economies during the transition from a centrally planned economy to market economy in the 1990s there is one that considers this recession as a statistical fiction: the elimination of "unneeded under a less wasteful economic system" output, such as defense goods and statues of Lenin, did not lead to the reduction of welfare. If adjustment is made for this kind of "redundant output", there was probably no recession at all or it was very mild.

This paper argues that the attempts to exclude some economic activities from a country's GDP are counterproductive – the mere principle of statistical registration in this case is undermined. Unfortunately, we cannot agree on what type of economic activity is good for welfare and what type is bad. Slave trade and weapons for colonial wars, statues of Lenin and Egyptian pyramids, cannot be regarded as value subtraction, but should be included into GDP creation activities.

The economic rationale for counting all activities as productive is that GDP is a measurement of production capacity, or economic potential of the country; it evaluates the ability of a nation to produce a particular amount of goods and services, no matter what is the exact nomenclature of these goods and services.

Keywords: calculation of GDP, transformational recession, welfare and GDP, centrally planned economies

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The best jokes are not only funny, but also carry a message. The following is one of the most famous jokes in economics, and helps to comprehend the important economic controversy over GDP:

> Two economic professors – one seasoned, another young – had exhausted all topics for conversation while walking over a deserted road. The older one sees a dead rat on the road and makes an offer to his young colleague: “if you eat it, he says, I’ll pay you $10,000”. The younger professor makes a quick cost-benefit analysis, figures that he is better off with $10,000 than without and eats the rat. As they walk further, the young professor suffers from the bad aftertaste and wants his senior colleague to experience the same. As he sees another dead rat on the road, he dares his older colleague to eat it, promising to pay him back the $10,000. The senior professor decides to get back his money and eats the rat.
>
> After several more hours of walking in silence and still experiencing the bad aftertaste, the younger professor finally speaks his mind: “Well, it looks like we were eating dead rats for free”! The older professor replies, “yes, my young colleague, but do not forget that the GDP increased by $20,000 dollars”.

So, did the GDP really increase? Some would say that this example fits the definition of GDP precisely – new goods and services produced and sold in the market. In this case a rat-eating performance for the benefit of the viewer. If taxes were paid from these two transactions, it is an increase in official GDP, if not – an increase in output of the shadow economy (unofficial GDP). But many would probably say that it is foolish to include these types of transactions into the calculation of GDP. Is it really?

What is GDP

Consider the real debates that are going on today. In the recent Report of the Club of Rome (2017) the authors point out ‘the paradoxical cases’: GDP increase due to oil spills because there is spending associated with the clean up, GDP increase due to diseases, disasters, and accidents, even though these events evidently reduce the welfare of the populous.

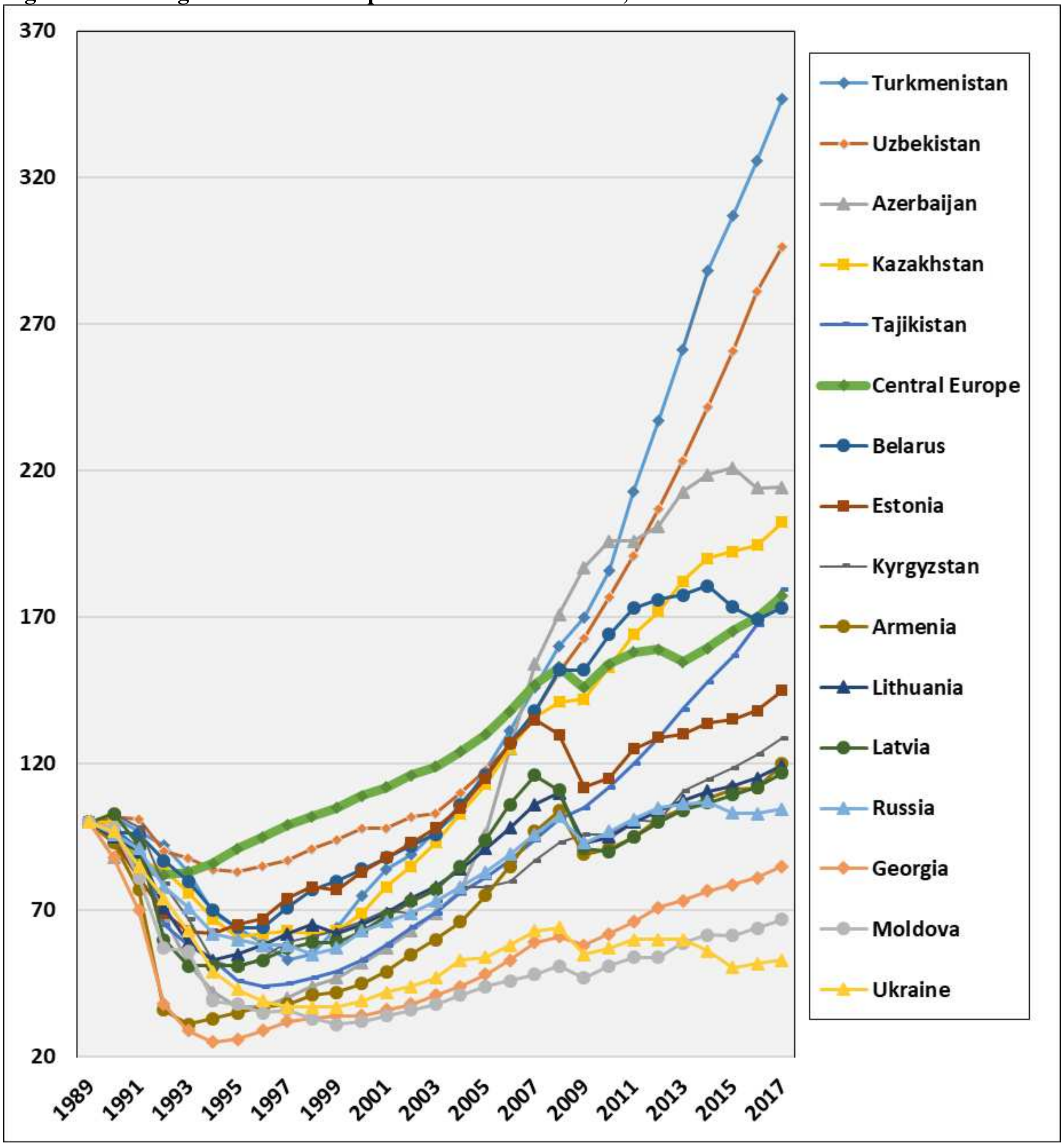
About three decades ago this argument was applied to the case of the ‘transformational recession’: a deep and protracted decline in output that occurred in the 1990s during the transition from a centrally planned economy to market economy in former communist countries. This decline was unprecedented in peacetime history: in Eastern Europe recession continued for several years and output fell by about 20 to 30%, in the former Soviet republics the decline lasted for nearly a decade and reached 50% on average and sometimes even 70% (fig. 1). Never before and nowhere else, there occurred such a dramatic decline in output, living standards and life expectancy without extraordinary circumstances, such as wars, epidemics, natural disasters.

Overall, for the three decades of the transition (1989-2019) in some countries affected by the armed conflicts the annual average growth rates were negative (Ukraine, Bosnia and Herzegovina, Moldova, Montenegro, Georgia, Serbia), so that their GDP in 2019 was below that of the pre-transition level of 1989 (fig. 2). This a is a greater GDP fall than during the Great Depression (1929-33), when GDP in Western countries fell on average by some 30% and by the end of the 1930s recovered to its pre-recession levels.

One of the popular explanations at a time was the reduction of ‘redundant output’, such as tanks or statues of Lenin, which did not affect the real welfare. If this “redundant output” is excluded from GDP, there was no decline at all or it was very marginal.

Winiecki (1991) claimed that the fall in output in the early stages of transition did not imply the fall in welfare, and that the most reasonable explanation of the output fall in early transition is the “elimination of the 'pure socialist production' of the past”, “unneeded under a less wasteful economic system” (Winiecki, 2002)[1].

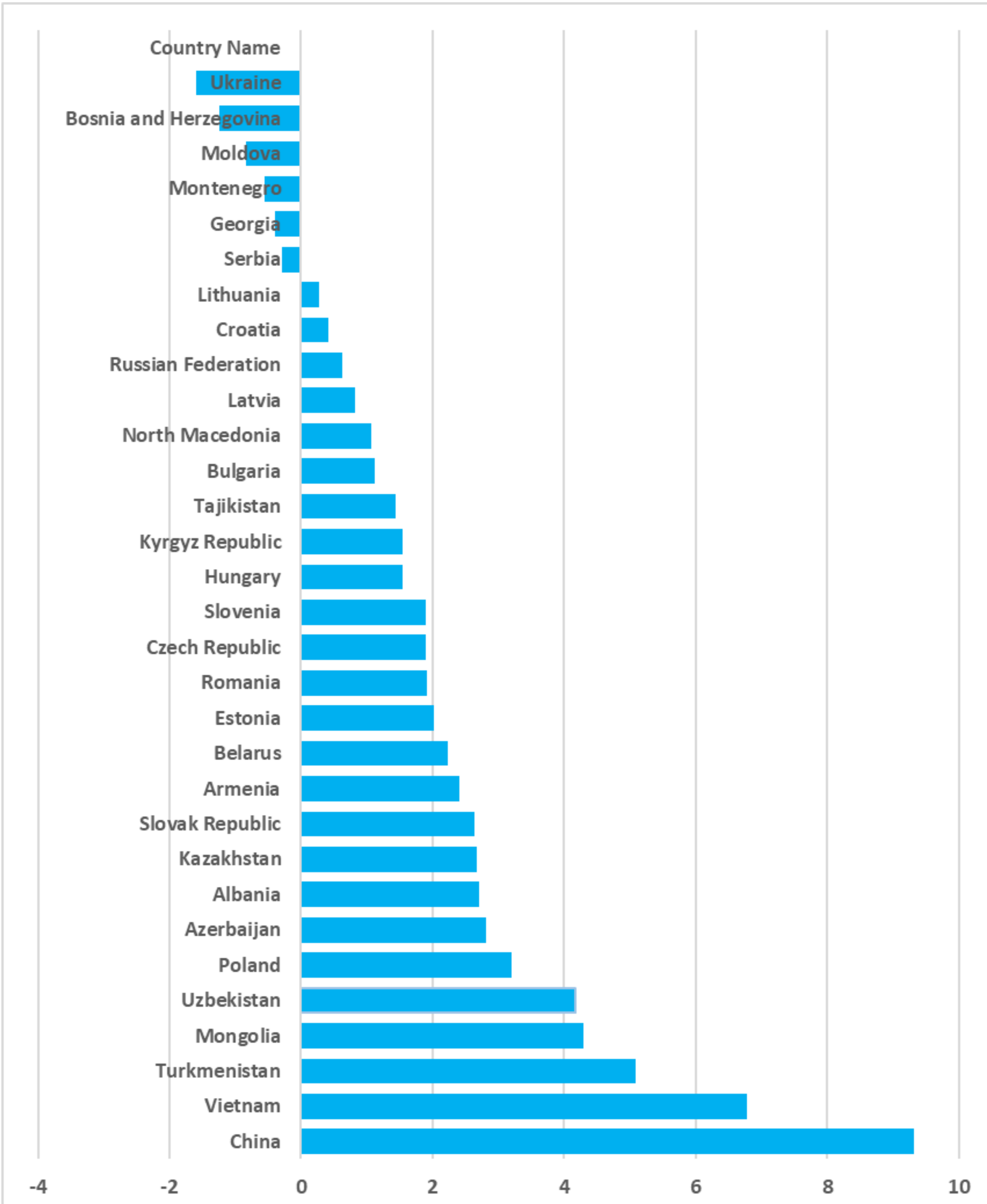
Fig. 1. GDP change in Central Europe and in FSU economies, 1989 = 100%



Source: EBRD Transition Report.

[1] “Excessive inputs, excessive investments, excessive armaments, as well as some other excesses disappeared in the early phase of a shift to the market (and democracy). Likewise, disappeared trade with the former 'fraternal' countries, which also began restoring economic sanity and did not need 'pure socialist production' anymore” (Winiecki, 2002).

Fig. 2. Average growth rate in transition economies in 1990- 2019, %



Source: *World Development Indicators (WDI)* database. For Baltic states (Estonia, Latvia, Lithuania), Moldova and 4 former Yugoslav republics (Bosnia and Herzegovina, Montenegro, Croatia, Serbia) comparable *WDI* data for 1990-94/97 are missing, so the data are taken from *Transition Report EBRD, 1995-2002*. GDP growth rate for Serbia and Montenegro are assumed to be that of Yugoslavia and FR Yugoslavia before 1997. For Bosnia and Herzegovina, it is assumed that GDP fell by 90% in 1990-95 (*Wikipedia*).

Åslund (2001) argued that the actual decline in output has been much smaller than perceived. "Socialism", he wrote, "was a system of waste. Soviet production usually needed three times more inputs than a Western factory since costs were irrelevant to managers. Some of these losses represented inefficiency, others theft … The investment that was sheer waste should preferably be deducted from GDP".

He also claimed that the fall in output during the transformational recession was "a myth" in part due to the unusually high share of defense spending in many socialist countries (about 15% to 17% of GDP in the USSR in the 1980s) and the reduction of this share afterwards. After the transition period this share fell to an "internationally normal level of about 3 percent of GDP". So, he suggested to deduct 10% of GDP from the statistically recorded output loss during the transformational recession (Åslund, 2001).

Gaddy and Ickes (2001) insisted that "we need to know whether measured GDP is accurately reflecting true value produced in the economy" and that "value added can rise in the economy even as domestic consumption, investment, and standards of living appear to decline". They also made an argument that a fall in output caused by a reduction of defense expenditure is in fact a welfare gain: "This is an output fall, but welfare is certainly higher with lower defense production given that the CPSU [Communist Party of the Soviet Union] is no longer the measure of value".

Today GDP as a measure of economic and social progress is criticised by virtually everyone on many grounds: it does not take into account other dimensions of development (education, health, crime, inequality, human rights, etc.), it does not capture the depletion of resources and damage to the environment that needs to be compensated to ensure sustainable development. This criticism is often constructive and leads to the development of other indicators of economic and social progress that are increasingly accepted in research and the statistical practices of national governments and international organisations. Examples include the Human Development Index, computed since 1990 by UNDP, and the Genuine Progress Indicator developed by researchers and certain national and regional governments.

But the attempts to exclude some economic activities from a country's GDP are counterproductive – the mere principle of statistical registration in this case is undermined. Unfortunately, we cannot agree on what type of economic activity is good for welfare and what type is bad. Statues of Lenin that were produced in the former Soviet Union can be regarded as value subtraction by some, but as value added by the others. Communist memorabilia and weapons designed and produced during the Soviet period turned out to be among the few internationally competitive goods of new independent states and clearly have market value.

If we start to exclude particular economic activities when calculating GDP, it would be impossible to determine the criteria for what to include or exclude. Defence spending was always counted as part of GDP, no matter whether the country was an aggressor or a victim. The share of defence expenditure in the GDP of the US was 40% in 1945 (World War II), 15% in 1953 (Korean War) and 10% in 1968 (Vietnam War). Shall we exclude the 'excess' over "the internationally normal level of about 3 percent of GDP" from total output or shall we accept the newly recommended threshold of 2% of GDP for NATO countries?

What about the slave trade that created a considerable portion of GDP in many countries? And what about the 'whites only' or 'colored' signs that were still produced in the US during the segregation era just over 70 years ago, and in South Africa – just 30 years ago? And the public burnings during the Inquisition, the electrical chairs and the injections of "sweet death" used in countries that still exercise capital punishments?

Some would have a problem recognising activities of clerics and fortune-tellers as value adding, others would question whether criminal activities create value in the shadow economy and in the official economy, if these activities are legalised (even more so that drugs, prostitution, pornography, and other such activities are legal in some countries, but not in others).

It is worth mentioning that socialist centrally planned economies used the material product system (MPS) as opposed to the system of national accounts (SNA) in Western countries: the general measure of economic activity was not GDP, but the national income that excluded depreciation of fixed capital stock and all non-material production, i.e. service sector. The rationale was that industries like finance, trade, education, health care and other services do not create value added, so the salaries and profits in these industries result from redistribution of value added created in the sphere of material production.

In a sense, the "redundant output" argument about GDP is the upside down version non-productive industries story under capitalism. The attempts to exclude the "redundant output" from the computation of GDP are similar to the socialist statistics exclusion of service sector from the creation of value process.

In short, it is impossible to agree on 'good' and 'bad' activities, so the economic definition of GDP avoids this issue by counting all activities, good and bad, as GDP creation. All government consumption counts as GDP, no matter whether the government is democratic or authoritarian and whether it protects or violates human rights. Similarly, investment, net exports and personal consumption are counted as demand components of GDP, no matter whether this demand is for weapons, drugs, Egyptian pyramids or construction of concentration camps.

This non-ideological approach has an important economic rationale. GDP is the measurement of production capacity, or economic potential of the country; it allows for the evaluation of the ability of a nation to produce a particular amount of goods and services, no matter what is the exact nomenclature of these goods and services.

If a country produces all the 'bad' goods, like opium, armaments, and sex for sale, valued at $1 billion, this is quite informative. It actually tells us that with the same amount of capital, land, labour, and technological level, it can produce roughly the same amount of 'good' outputs, like food and machinery. It will take some time and effort to carry out the conversion of 'bad' production activities into 'good' ones, and there is likely to be a transformational recession during this transition, but eventually the country will restore its previous level of output.

Beyond GDP

Gross National Product (GDP) started to be calculated by the statistical offices in the US and Europe only after the Second World War[3], and it is criticized virtually since the moment of its inception into the statistical practice. In an often cited speech of senator Robert Kennedy in the University of Kansas on March 18, 1968, he claimed that GDP "measures everything, except that which makes life worthwhile"[4].

In 1990 the UNDP started the publication of Human Development Report, where the Human Development Index (HDI) was calculated. It was a simple non-weighted average of three normalized indicators – life expectancy, educational level and PPP GDP per capita. In recent years HDI is adjusted for inequality. In the list of countries with the highest HDI we find the usual suspects from the Western world (Scandinavian countries, Germany, the Netherlands, Austria, Switzerland, Australia, France, Luxembourg, Belgium, Canada, UK, US), but also Ireland, Slovenia, Czech Republic, Slovakia, which are nowhere near the top in the per capita GDP list of countries.

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[3] USSR was the first country to introduce a system of the national accounts in the 1920s and computed national income indicator. It differed from GDP (it did not include depreciation of the fixed capital stock and value added in service industries), but national accounts contained all the necessary information for the computation of GDP.

[4] "Too much and for too long, we seemed to have surrendered personal excellence and community values in the mere accumulation of material things. Our Gross National Product, now, is over $800 billion dollars a year, but that Gross National Product - if we judge the United States of America by that - that Gross National Product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage.

It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl.

It counts napalm and counts nuclear warheads and armoured cars for the police to fight the riots in our cities. It counts Whitman's rifle and Speck's knife, and the television programs which glorify violence in order to sell toys to our children.

Yet the gross national product does not allow for the health of our children, the quality of their education or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials.

It measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to our country, it measures everything in short, except that which makes life worthwhile.

And it can tell us everything about America except why we are proud that we are Americans.

If this is true here at home, so it is true elsewhere in world" (https://en.wikipedia.org/wiki/Robert_F._Kennedy%27s_remarks_at_the_University_of_Kansas).

As the jubilee (50 years' anniversary) report of the Club of Rome stated, "measuring our success on GDP growth has proven inadequate to the task and it also masks a growth in inequality between rich and poor. New indicators such as a Genuine Progress Indicator could more accurately measure economic welfare (Club of Rome, 2017). This Genuine Progress Indicator is supposed to take into account the damage done by the depletion of resources and pollution of the environment, as well as social achievements.

The commission that included five Nobel laureates in economics concluded in 2009 that "the time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people's well-being" (Stiglitz, Sen, and Fitoussi, 2009). It recommended to consider several dimensions of wellbeing: i. Material living standards (income, consumption and wealth); ii. Health; iii. Education; iv. Personal activities including work v. Political voice and governance; vi. Social connections and relationships; vii. Environment (present and future conditions); viii. Insecurity, of an economic as well as a physical nature.

Bhutan started to conduct nationwide Gross National Happiness (GNH) surveys in 2008. In 2012, Bhutan and United Nations convened the *High Level Meeting: Well-being and Happiness: Defining a New Economic Paradigm* to encourage the spread of Bhutan's GNH philosophy. The first World Happiness Report was issued in 2012; since 2016, it has been issued on an annual basis.

Today there is a large literature on shortcomings of GDP and a lot of proposals for alternative indicators of economic and social progress (McDaniel and Berry, 2017), but the proposals to exclude "redundant" and "value subtracting" activities from GDP computation come mostly in connection with socialist centrally planned economies and their transition to market and democracy. They are driven by ideological consideration and contradict economic logic.

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