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STILL MORE WELFARE THROUGH GROWTH OF ECONOMICS?

Starting point, subject, and aim

Starting point of these comments is the press release of the Federal Statistical Office (FSO) in Wiesbaden that the German economy in the year 2017 had a strong growth, too. That press release was presented on the press conference of the FSO at 11th January 2018 between 14:00 and 17:30 in the House of German Economy in Berlin by a statement of Albert Braakmann, Head of Department D (System of National Account, Prices) of FSO, it was deepened by three technical papers with written hand-outs, and it was discussed with invited guests. From this press release wecite:

“Die konjunkturelle Lage in Deutschland war im Jahr 2017 gekennzeichnet durch ein kräftiges Wirtschaftswachstum. Das preisbereinigte Bruttoinlandsprodukt (BIP) war nach ersten Berechnungen des Statistischen Bundesamtes (Destatis) im Jahr 2017 um 2,2% höher als im Vorjahr. Die deutsche Wirtschaft ist damit das achte Jahr in Folge gewachsen. Im Vergleich zu den Vorjahren konnte das Tempo nochmals erhöht werden. Im Jahr 2016 war das BIP bereits deutlich um 1,9% und 2015 um 1,7% gestiegen. Eine längerfristige Betrachtung zeigt, dass das deutsche Wirtschaftswachstum im Jahr 2017 fast einen Prozentpunkt über dem Durchschnittswert der letzten 10 Jahre von +1,3% lag.”

Translation by the author: “The economic situation in year 2017 in Germany was marked by a strong growth of economics. The Gross Domestic Product (GDP) adjusted for price due to a first account of FSO was in 2017 by 2,2% higher as in the previous year. By this the German economy grew the eight’s year in series. Compared with previous years the speed could be raised once more. In 2016 the GDP increased already clearly by 1,9% and 2015 by 1,7%. A long-term view shows that the GDP in the year 2017 was nearly one percent point over the mean of the last 10 years of +1,3%”.

Furthermore this release notes that the domestic demand was growth engine, that the Gross value added GVA increased in nearly all sectors of economy, that a new maximum of nearly 44.3 million people was achieved with the number of workforce with workplace in Germany in yearly average, that the state households achieved a record spill-over of 38.4 billion (the 4th time in series a spill-over), and that, measured by the GDP at current prices, in 2017 was a spill-over rate of the state of 1,2%.

The following contributions on GDP and business cycle in 2017 by Stefan Hauf, on employment market 2017 by Christoph-Martin Mai, and on state finances 2017 by Jens Grütz deepened and confirmed this result with many graphs (Statistisches Bundesamt, 2018d).

In a distributed appendix (Statistisches Bundesamt, 2018c, p. 45–46) it is explained that the GDP according mandatory rules of the European System of National Account of 2010 (ESNA, 2010) includes scores of activities of shadow economy, however there is no separate estimation of those. For purpose of registration of those difficultly to

calculate activities, the German SNA firstly arranges additions for undercoverage in basic statistics, for missing coverage because of dispensation of the obligation to report (for instance small enterprises), for not or incomplete proved in-house efforts with building construction for instance, or for tips. Secondly the German SNA records these activities implicitly by selection of a different method of estimation, so the agricultural production is estimated by the area under cultivation and average yields, and the rents for dwellings are estimated by the dwelling stock, subdivided after size and other characteristics as well as the current rent per square meter. Yet it is not known whether those activities recorded by these instruments are included in annual tax declarations. Thirdly, throughout European Union according ESNA 2010 all relevant illegal activities are to include into the calculation of the GDP in order to get a better comparison of the data between the member states of EU; within the European context they include prostitution, drug trade and drug production, and smuggling of tobacco and alcohol; cite:

“Die Berücksichtigung von Drogen und Zigarettenschmuggel erhöht das Niveau nur um etwa 0,1%”. Translation by the author: Regarding drugs and tobacco smuggling increases the level only by 0,1% approximately.

Furthermore, this appendix explains that within European Union the Gross Domestic Product and the Gross National Income (GNI) are used for administrative purposes: The GNI is assessment basis for the far biggest part of the contributions of the member states to the household of the European Union; the GDP is used for important characteristics within the international comparison, for the fiscal deficit ratio and for figuring the debt level within the scope of monitoring state finances. Insofar the complete record of all economic activities is a central requirement of European Statistical Office (Eurostat). Referring to the measure of welfare by the GDP this appendix explains (Statistisches Bundesamt, 2018c, S. 47–48), cite:

“Unstrittig ist, dass die im BIP erfasste Güterversorgung einen wesentlichen Beitrag zum materiellen Wohlstand liefert, andererseits aber eine Betrachtung der materiellen Lage allein nicht ausreicht, um Wohlfahrt zu messen. Ein Mehr an BIP ist nicht zwangsläufig ein Mehr an Wohlfahrt. Ein wesentlicher Kritikpunkt am BIP als Wohlfahrtsindikator ist, dass positiv zur gesellschaftlichen Wohlfahrt beitragende Tätigkeiten, wie etwa die Hausarbeit oder ehrenamtliche Aktivitäten, im BIP nicht erfasst sind. Einbezogen werden jedoch die Kosten zur Beseitigung negativer Begleiterscheinungen des Wachstums für die Umwelt oder die Lebensbedingungen, beispielsweise in Form von Ausgaben für umweltbedingte Erkrankungen. Zudem vernachlässigt das BIP, wie sich Einkommen und Vermögen in der Bevölkerung verteilen. Auch bleiben mit der Fokussierung auf das BIP die nicht-materiellen Seiten der Lebensqualität sowie die ökologische Nachhaltigkeit des Wirtschaftens ausgeblendet.”

Translation by the author: “Non-controversionally is that the supply of products included in the GDP is an essential part of the material welfare, however on the other hand the consideration of the material situation only is not sufficient to measure welfare. A more with GDP is not necessarily a more with welfare. An essential point of criticism with GDP as indicator for welfare is that activities with a positive contribution to the social welfare like house work or voluntary activities are not included into the GDP. However, included are costs for removal of negative impacts of the growth on the environment or on the conditions of living, for instance by expenses for illnesses caused by environment. Furthermore, the GDP neglects the distribution of income and assets within the population. By focusing the GDP the non-material aspects of quality of life and the ecological sustainability of economic activities are turned off as well”.

In this context it is referred to other initiatives to measure welfare, quality of life, and social progress: to the proposals of the Stiglitz-Sen-Fitoussi-Commission of 2009

(Braakmann 2010), to the set of indicators of the Organization of Economic Co-operation and Development (OECD) of 2011 (OECD, 2015), and to the ten leading indicators of the Enquete-Kommission appointed by the German Parliament (Deutscher Bundestag, 2013), which make also use of statistical indicators.

Subject of these comments are three aspects: firstly and centrally the measure of welfare by the GDP itself, secondly the influence of money policy of the European Central bank (ECB) on the growth of German economy in 2017, and thirdly the measure of inflation by Eurostat; the latter ones result from questions during discussion. Their common aim is to evaluate them in the mirror of the real economic system of the natural world, and to propose the incorporation of the leading indicators (of biological production and reproduction) of this up to now ignored system — which are known and statistically documented! — into a “System of National Account 5.0”, short notation “SNA 5.0”. Referring to the abbreviation “I 4.0” which stands for new challenges of industry by digitalization and the abbreviation “SNA 4.0” (in German “VGR 4.0”) used by Stefan Hauf in his prospect (chart 34) on the equivalent challenges within the general reshaping of European SNA in year 2024, the term “SNA 5.0” is consciously chosen just like this. It shall express that a general qualitative reshaping of the European SNA concerning this matter accepts this new challenge by the confirmation of the existence of a real economic system in the natural world and the ecosystem of the earth, respectively; and due to Hegel’s overall picture of economic production in human society (predominantly material) and environment (predominantly biological) aims at a consistent measure of leading indicators of both systems, presents it, and uses it as basis for assessment with administration and international comparisons in long-term.

Note, main research aim of Leontief-Institute in Berlin is to uncover the real economic system of the natural world (referring to all populations and species including man) and its impacts on human society, to describe them (see drawing and text on cover page 2), and project its existence and importance into the awareness of leading people from politics and administration, in order to work against ignorance coming across there even 15 years after starting this project. In addition to journal *Werkstattheft aus Statistik und Ökonometrie* (workshop booklets from statistics and econometrics) since end of year 2016 the journal *Sozialpolitische Werkstattheft* (Sociopolitical workshop booklets) is published; cite from the foreword of the first issue (Maier 2017, English version):

“Cause of this additional orientation of Leontief-Institute is simply that economic policy within the ecosystem of the earth — transferred to human society — primarily is social policy. The dissolution of this paradoxical appearing conclusion lies in the cognition that the biomass of creatures and species whose growth and conservation within the ecosystem of the earth counts primarily, and material capital is subordinate. Simply spoken, the ecosystem is dominated by “bio-capitalism” which is superior to the “material capitalism” of human society because “bio-capital” (humans for instance) is able to reproduce itself und “material capital” (a car for instance) is not. Therefore decisive economic indicators of human society are not those of the System of National Account SNA (growth of economics, employment, income, etc.); rather they are social and biometric indicators (number of population, net rate of reproduction, birthrate, etc.). Worldwide migrations from developing countries to developed countries and the demographic change in wealthy capitalistic states confirm this cognition empirically. In this new series it is intended to describe and evaluate observable social phenomena and their political environment — like in a mirror — in the economic order of the ecosystem of the earth which since 2002 is lightened and confirmed by Hegel’s philosophy theoretically and by observations empirically.”

Comment on measuring welfare

Yet parallel to the papers of the speakers and afterwards on way home the author, participant of this expert talk put himself the question whether this indisputable positive message about the economic development in Germany in 2017 (and since the financial crisis in 2008) means a “still more” of welfare in Germany, too; and he brought his own *micro-observations* into his mind.

Result from his personal surrounding field:

One receive social welfare benefit in Berlin, few years over 50, academic educated, teacher of short duration, internship resigned by him/herself, active as writer, winner of a prize years ago abroad, now disabled, quite often ill, he/she willingly would have worked in a library but he/she has no chance for employment not even on a so-called one-Euro job (a minimum). One person below 50 years, in 2017 under the winners of the “Industry 4.0 Innovation Award” for his/her enterprise, each week uselessly spends a lot of hours on the road traffic because in 2017 the second time in series it was not possible to realize a dislocation of his/her spouse, teacher, from one province to a neighbored or at least close to the border. One person under 40 years being in year 2017 again in education and supported by his/her mother because he/she was resigned after one year work abroad; in Germany he/she is not recorded as unemployed, he/she sees the mistake “within the system”, and he/she is a follower of conspiracy theories. One person over 45 years who studied still in the age of 40 years, who spent a big part of his life in mental homes, and who in 2017 still has a “defective social behavior” (indication of his/her person in charge). But also that: one person below 25 years, studying, living with a male/female student with insignificant employment in a partnership, because of the premature birth of twins in 2016 many ten thousands of Euro were paid by the health insurance fund for the ten weeks lasting stay of those in a special department of a hospital, without trying to burden costs to other responsible persons forsupport.

Result from his home and working area:

With the collective of owners of the house where he lives and works breakings in the last years, even in January 2018 an attempt, not successful but damages and uncertainty exist. A smudgy front side to the street and smudgy facade to the neighbored piece of land, too, in January 2018 again; since years this collective of owners has cost to clear these graffiti. However, in 2017 there were no bricked tires with his (older) car after this occurred in total eight times in the years 2014 and 2015, and the regional Public Attorney’s Office in Berlin and southern Germany stopped the particularprocedures.

On the neighbored piece of land nearly standstill of building construction activities, the open area of a former corner house shall be covered with a building. This part of the former building was not rebuilt after the Second World War, and during the last decades it was used as a private playground for children. In the meanwhile a grand tree grew on this area. As the prices of land pieces in Berlin have reached unforeseen high levels the reconstruction in the old style pays off. However, now it goes on burden of aeration and the stock of trees because with the reconstruction after the war the principles of de-concentration and aeration were predominantly. The housing society which bought this corner piece of land from the land owner Berlin after 1989 told its neighbors already in August 2016 that building construction activities should begin in the spring term of 2017 and — together with a clearance of the existing building — should last 1½ years. The existing house was evicted, since over one year it is nearly empty. It happened in 2017: Until autumn the windows of this house were exchanged and interior work was done, during November it was schaffolded, in December the grand tree to the street was eliminated, even sooner a smaller one. Building worker were to be seen rather seldom

and if yet seldom it was spoken German, two times the author observed police men with controls. In February 2018 the reconstruction of the open area still did not start. The existing house is still schaffolded, insulation wall panels were installed at the inner facades during February and March 2018. The existing dwellings are still empty for the most part (without light) in spite of a big demand in Berlin.

At the conventional telephone network weekly unrequested calls although the regulatory authority was informed that he does not want advertising calls; even the “grand parent scam” occurred the aim of which is to obtain money by fraud — but it did not occur in 2017. In the meanwhile with telephone calls (at work or private) the author is used, to do not respond with his name but to say “hello” and hang up if the calling person does not say his/her name. At the PC in spite of the firewall attacks by viruses, via him also to his former department, so that to avoid bigger damages the password was changed in 2017, not to mention aggressive advertisement the elimination of which by suitable filters does not enable reading of electronic issues of daily newspapers via internet, for instance “Frankfurter Allgemeinen Zeitung” (FAZ). Passing people on the sideway in front of the house frequently do not speak to each other but via handy with third persons, several languages he does not understand. When the door-bell rings, not only sometimes a deliverer asks to receive a parcel (mostly from Amazon enterprise) instead of a neighbor he did not meet; this is good for him and the internet suppliers but at least not for the welfare of the author. And he remembers a sentence of an older neighbor in 2017: “Berlin is not any longer Germany like New York is not the USA” which he understood so that globalization and demographic change simply upset conventional behavior and local particularities, or even tear down them like the Berlin wall in 1989.

Summary of these micro-observations: More welfare by growth of economics? Rather “No”!

In order to test the weight of these micro-observations, and to broaden the basis the author referred to *macro-observations* on provincial, federal and level of European Union, result:

Provincial level Berlin

The airport Berlin-Tegel which should be closed-down already in 2012 is still open; by this fact the noise disturbance, don’t wanted, is still present. Reason is that the new airport Berlin-Brandenburg-International still is in construction, the completion of which after latest information shall be in 2021.

A story with continued increases of costs in billions of Euro and changes of persons in leading positions; surely, a don’t wanted high contribution to the growth of Gross Domestic Product but more welfare? Clearly “No”!

The illegal sales of drug dealers in the Görlitzer Park and other places in Berlin 2017 according messages in daily newspapers among them rejected asylum seekers who cannot be deported: though they deliver a marginal contribution to the growth of GDP, irrecontrovertibly they cause non-marginal losses of welfare!

The houses in Rigaer Street (of district Friedrichshain) still in 2016 occupied as well as those houses in Potsdamerstraße 157–159 (of district Schöneberg) — according a label occupied since 25th March 1981! — also indicate a sustainable standstill and dissatisfaction of the citizens in 2017 but not at all “morewelfare”!

The quartering of refugees (even still in 2017) in public office buildings of town-hall Wilmersdorf at Fehrbelliner Platz and in buildings of closed airport Berlin-Tempelhof indicates emergency but no welfare. However, because this public measure causes cost it is a contribution to the growth of GDP!

Federal level

The election of the federal parliament of Germany at 29th September 2017 expressed dissatisfaction of the voters with the governing coalition of Christian Democratic Union

(CDU) and Social Democratic Party (SPD); indication is that only five months later a new government was elected, a novelty in the history of Federal Republic of Germany. Measured at the eight-year growth of economics of German economy such a result should not be expected. However, if we consider already happened and still upcoming losses of welfare by the refugee-policy of the German Federal Chancellor (Angela Merkel), also with the poorer part of population, then this election result is a significant signal against the ruling elites and their policy because “Barmherzigkeit schafft keinen Wohlstand” (translation by the author: Charity does not create welfare) due to priest Martin Rhonheimer (FAZ 19.02.2017). Similar holds for redistribution which distributes the existing welfare differently but does not increase its level.

Level of European Union (EU)

The dissatisfaction of the voters with ruling elites in present, accelerated by flows of migration and refugees from abroad of EU and their impacts in 2017 became obvious also with parliament elections in Austria and France. In Austria the right wing party Freiheitliche Partei Österreichs (FPÖ) became junior partner of the government Kurz (ÖVP, Austrian Population Party). In France candidate Macron forming a new vote initiative won against the established parties of left wing as well as against the right wing party Front National(FN).

In Spain the non-legal declaration of independence of province Catalonia in 2017 indicates that this more wealthy province seeks its welfare rather in an own state with EU-membership; the crisis concerning this matter is still not ended.

And the claim of the EU-Kommission with the European Court of Justice against the Visegrád-States (Poland, Czech Republic, Slovakia, Hungary) in 2017 because of missing solidarity with the acceptance of refugees indicates that these states fear significant losses of welfare but do not want to accept it.

Summary of the macro-observations: More welfare by growth of economics? Highly controversial, measured with the results of those elections surely “No”! The suspicion becomes confirmed that something is wrong with the measure of welfare by the Gross Domestic Product GDP, but what?

The general scientific answer of the author is: The economic system of the real world (equal natural world or ecosystem of earth), a theory based on observations and Hegel’s philosophy and tested as well as confirmed widely, is ignored. And his concrete answer is: The leading economic indicators of this system — which are social and biometric indicators, this is no contradiction! — are not included into the measure of welfare through the Gross Domestic ProductGDP.

Reason is that the GDP only includes material aspects (and related services for people) of human production and it excludes the biological self-production and reproduction within private households of human society. But the latter is the essential one within Nature’s economic system of all species and populations which easily can be confirmed by observation: cats produce cats, apple trees produce apple trees, snails produce snails and usually only one house, etc., and yes: humans produce humans!

This biological self-production of a nation is far more than only “unpaid housework“ of the private households, this self-production creates a national identity and a national culture what is shown by a view back into the history. And this self-production is essential because without a population there is no state and no political system. Growth of population reflects in the growth of the net reproduction rate, see Appendix C, and it does not reflect in the growth of GDP. That an efficient economic policy is possible by regulation of the net reproduction rate of population, P. R. China has shown sufficiently by its policy of the one-child-family over several decades of years until year 2015 with a far larger stock of human population (Maier, 2011).

In contrast to suggestions of the Stiglitz-Sen-Fitoussi-Commission of 2009, as well as to the set of indicators of OECD of 2011 and to the ten leading indicators of the Enquete-Commission of the German Parliament of 2013, all of which are based on measuring welfare and social progress by the GDP and accompanying indicators, author's proposal is to include the biological self-production of a state directly into the System of National Account SNA. Surely, not from today until tomorrow but as an aim for a "System of National Account 5.0" (short "SNA 5.0") as above introduced with the subject matter. How this works and where we start to built it up is shown with the example of an input-output table. The same correspondingly holds for production of the remaining ecosystem of the environment (but is not subject of this article). Such a completed System of National Account "SNA 5.0" equals Hegel's overall picture of the production inside the state borders. This "SNA 5.0" should be basis with transfers of welfare and balance of burdens inside the European Union, and it should not be the unilateral oriented GDP or GNP of present; this is proposed, too.

Note the equivalent of money, *energy*, of Nature's economic and financial system, was presented in 2003 on occasion of the 54th Session of the International Statistical Institute (ISI) in Berlin (Maier 2003). Continuously latest results and applications were presented for discussion not only on statistical conferences. For a condensed version of the achieved status of this theory based on economic principles and natural laws see Maier 2016. Yet access to Official Statistics or to politics the results of this research did not find until now. This confirms empirically how inelastically politicians and Official Statistics, too, handle innovative approaches. Disciplinary thinking and the legally mandated task — which is differently indeed! — are predominant. Hereby the integrity of the staff of federal Statistical Office, well established political economists, is out of doubt. But the idea to introduce the biological self-production into the System of National Account seems to be visionary and infeasible. Reversely, this attitude is motivation for the author to continue patiently but toughly, and to show its feasibility because Leontief's idea to model the economic cycle by means of empiric input-output tables wastaken seriously after represented such a table with the example of USA and the year 1935 and not before. And the reality in present that illegal prostitution is referred with the SNA of EU but not the biological self-production, in opinion of the author is not compatible with ethics in statistics. That social indicators are important to measure welfare (and living standard) was already subject of discussion in the 1970th (Inaugural-Diss. Maier, 1973). As for the contra productivity of the refugee policy of European Union which is associated see (Maier, 2017).

Comment on money policy of European Union

The question of the author whether the influence of money policy of European Central Bank (ECB) on the economic growth of Germany in 2017 can be quantified was responded by Albert Braakmann by a clear "No". Surely, there is an influence because the policy of zero-interest of the ECB devaluates revenues from savings but equally it favors investments; however this influence is not quantifiable. Hint: In the real economic order of the natural world there is an interest (in terms of energy), too; but there is no policy of zero-interest (Maier, 2007).

Comment on measuring inflation

After the question of another participant on measuring inflation Albert Braakmann explicated that the Statistical Office of European Union (Eurostat) excludes commodity groups "Agricultural products" and "Energy" with the measure of the core inflation.

As reason for the first he nominated that the prices of agricultural goods depend from the climate; and for the second that they depend from the rates of exchange (to US \$). However, the Federal Statistical Office of Germany would execute both measures, with and without those commodity groups. Remark: in the real economic order of the natural world this containment on the core inflation is not understandable; impact is underestimation of the real inflation because of in 2017 prices of food and mobility (energy) increased significantly. The latter is confirmed amongst others by the documentation of expenditures of a single household running since years at Leontief-Institute in Berlin. Within Nature's ecosystem agricultural products (of fauna and flora) are the most important source of food. And "energy" is not a commodity like others which Frederick Soddy (1877–1956) mentioned already, rather "energy" is the real means of payment accepted between creatures with the exchange of goods and services on the dual markets in the natural world. The latter was uncovered by exploring Nature's real economy and by this it confirmed Soddy's cognition.

Proposal of a System of National Account "SNA 5.0"

How to implement the biological self-production of a national population into a "SNA 5.0"? Where are the connecting points? We use data of the Input-output table 2006 of Federal Republic of Germany (Statistisches Bundesamt 2010, S. 654–655) with prices at work and 12 commodity groups and sectors of productions (R12), respectively to explain the answers, see Appendix A. In this table we have to include additional positions for cost and yield of activities of the domestic population which up to now are not considered as economic ones. In principle, these answers can be explained with the calculation of the GDP and GNP as well.

Starting point is the thought that the social being "man" has a limited life expectation which can be identified as a depreciation period in economics. Hence "man" — like any other creature — is subjected to a depreciation in value during time which has to be balanced by yearly reserves in order to maintain the population stock sustainably. Thus we identify as connecting point the cost position depreciation with the production input (row 19) and the supply side, respectively, of this table; this position is part of the consumption of the Gross value added (GVA). So far only depreciations of material goods used for production are recorded. Here we need an additional row for depreciation of biological and social goods, respectively, used for production which we call nationals. This new row is marked (greenish) and it includes still queries instead of data.

However, in principle the missing data with the production input exists in social statistics, or it can be estimated. For this it must be found out in which private households how many domestic workforces and/or domestic employees have given birth to children in 2006 and/or parented. The nonpaid labor input of those is to measure and to evaluate in money, and it is to balance with state benefits like child and parent allowance, and also tax benefits.

Now we turn to the consumption and use side, respectively, of this input-output table. The question arises which yields (and which column) are in opposition to that additional cost of reproduction and biological/social depreciations thereby the total use of goods (equal total production output) of any included commodity group is of same amount as the amount of the corresponding sector of production with total production input. Where is here the connecting point? As giving birth to children and parent children are unpaid services, position and column 12, "Services of public administration, defense, social insurance, churches, culture, private households etc.", is out of consideration. However, thinking of the so-called contract of generations and realizing that the cost

of reproduction of the population (in present) serve the social security of these private households (in future) when they are no longer workforce or employee but receive social transfers (if at all), we find it: the biological reproduction of the state population equals a real social insurance; hence it is a social investment into the future. By this cognition we identify column 16 within the final use of products (equal final demand for products) as connecting point in which gross fixed investments are recorded — which mean material investments. Beside these “immobile” gross fixed investments we have to consider biological and social, respectively, gross investments which in contrast are “mobile”, namely the adolescent succeeding generation. Insofar we include under position and column 16 an additional column, and we denote it “Biological or social investments into the future” (also marked greenish). The amounts of those become efficient only in future; within Leontief’s input-output calculus, the amount of any commodity group must equal the reserves to ensure the stock of biological and social goods of production in row 19; hence we have not to estimate them again.

What is impact of the implementation of these additional social depreciations (in row 19) and social investments into the future (in column 16) within this exemplary input-output table? The concerned rows and columns of this table including the reporting rows on workforce and employees are marked (yellowish). Viewing the production (equal production input) these are the gross value added (row 21), the total production input (row 22), the number of domestic workforce (row 24), and the number of employees (row 25); viewing the use side of production those are the total final use (column 19) and the total use of goods (equal total production output, column 20). Result is: The gross value added (row 21) and the total production input (row 22) will be increased by the amount of the depreciations for biological/social goods, in each sector of production and in total. Likewise the total final use (column 19) and the total use of goods (column 20) will be increased by the (same) amount of biological/social investments into the future, in each commodity group and in total. However, there is no impact on the number of domestic workforce (row 24) and employees (row 25) because there are recorded paid activities, only.

And what would be impact if this “SNA 5.0” would be implemented into the European SNA with their member states? Answer: The total value of domestic production, as well as the Gross value added GVA would be increased in each member state; hence also the Gross Domestic Product GDP which serves the core aim of the European Union to record all economic activities. Those increases would be differently because they depend from the level of the net reproduction rate of a concerned member state. Member states with a higher net reproduction rate (France for instance) would have a stronger increase than member states with a lower one (FRG for instance). We expect a change of payment flows within European Union. But we are not able to quantify it without resilient data (for the queries in this input-output table). However, as for the Gross National Income GNI which is basis for the biggest part of contributions of member states to the household of the European Union, as long as giving birth to children and parent them remains unpaid, we expect no change because it refers to income of employees, of net operating and of investment, and it does not include depreciations. As the Gross Domestic Product GDP within international comparisons is an important characteristic and used for calculation of the budget deficit ratio and the debt level, there would be changes as well. But these changes are due to the social justice who cannot and must not exclude required social investments into the future if the state population shall exist sustainably — and it is not aimed at unilateral migration from abroad like in present. Note, migrations can be also recorded by this approach, immigration by considering both material and social imports (row 14 of this input-output table), and emigration by considering both material and social exports (column 18); but this is not subject of this article.

And finally: What would be impact if this “SNA 5.0” would be integral part of the System of National Account (SNA) of United Nations? Overall answer: Within international transfers the wealth of population of many developing countries, measured by the net reproduction rate, would be balanced with their economic poverty, measured by the GDP. In the end they would not be graded as needy as in present, and they would not get the same transfers as in present. Obviously, those countries, in the majority with United Nations, will not be interested in such a “SNA 5.0”. But thinking of Hegel’s overall picture of human material and biological/social production, the missing interest of developing countries (and other states) is not a substantial argument against the recording and monitoring of the total material and biological/social production of humans proposed and shown in this article.

Acknowledgement

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Appendix A

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	No
4	0,4	1,3	2,3	80,1	51,4	1,3	0,8	8,7	2,1	0,3	0,6	0,6	149,9	2,8	-	10,4	-3,9	86,3	95,7	245,5	4
5	1,0	4,2	3,8	3,7	166,6	1,3	1,1	9,7	10,3	1,6	2,2	4,4	209,9	48,4	2,1	83,5	1,3	371,5	506,8	716,6	5
6	0,2	0,4	3,4	2,6	7,1	31,1	2,5	5,0	7,3	7,3	3,3	2,6	72,7	40,5	0,1	8,6	-7,1	58,3	100,3	172,9	6
7	2,8	-	0,8	-	-	0,0	23,0	0,0	7,3	0,0	3,5	0,9	38,4	76,3	0,2	-	2,0	30,6	109,1	147,5	7
8	0,3	1,3	0,8	0,7	1,2	0,6	0,4	6,0	3,6	18,7	3,6	3,5	40,7	3,6	-	157,4	-	0,1	161,1	201,9	8
9	3,1	4,8	16,6	12,7	37,6	14,1	15,6	12,3	132,7	10,5	11,6	10,6	282,2	329,3	15,2	19,6	-2,4	103,4	465,1	747,3	9
10	7,4	10,0	30,4	12,4	66,2	17,8	18,4	30,8	105,6	236,6	29,5	24,9	589,8	315,6	6,9	34,7	-	52,1	409,3	999,1	10
11	0,8	0,6	3,2	1,2	1,6	1,1	0,9	0,7	6,0	6,8	17,8	4,1	44,8	100,3	220,3	-	-	-	320,7	365,5	11
12	0,3	4,8	1,9	0,8	3,8	3,7	1,3	1,6	6,7	18,1	4,0	23,5	70,6	75,0	164,7	4,3	0,4	2,5	246,9	317,5	12
13	27,5	47,9	161,1	126,4	361,0	84,3	91,3	99,9	299,9	305	84,3	80,8	1769,4	1065,5	415,1	322,8	-20,6	863,9	2646,7	4416,0	13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	No	
Intermediate outputs to sectors of production (column 1 to 12) and final use of production (column 14 to 18) from foreign production (imports)																						
14	4,4	16,0	97,1	51,7	140,5	29,7	20,6	16,4	50,9	36,2	13,6	13,0	489,9	126,2	6,6	70,4	?	7,9	167,2	378,4	868,3	14
15	1,1	1,7	2,0	1,4	3,4	1,6	2,3	1,5	10,4	13,4	10,7	10,0	59,6	134,4	4,6	29,6	?	-	-0,2	168,4	227,9	15
Intermediate outputs to sectors of production (column 1 to 12) and final use of production (column 14 to 18) at purchase prices																						
16	33,0	65,7	260,1	179,4	504,9	115,5	114,2	117,8	361,4	354,6	108,6	103,7	2318,8	1326,1	426,3	422,8	?	-12,7	1031,0	3193,4	5512,3	16
17	7,8	19,5	48,1	41,3	157,0	33,5	21,6	51,2	241,7	197	182,8	148,3	1149,3	x	x	x	x	x	x	x	x	17
18	-7,3	-0,2	2,2	1,5	2,9	1,3	0,6	0,9	10,9	17,2	-4,8	-0,3	24,9	x	x	x	x	x	x	x	x	18
19	7,2	12,9	12,3	7,2	24,3	8,4	5,1	4,8	44,9	150,8	33,1	32,4	343,4	x	x	x	x	x	x	x	x	19
Depreciations (of biological or social products)	?	?	?	?	?	?	?	?	?	?	?	?	?	x	x	x	x	x	x	x	x	
20	9,5	14,9	16,3	16,1	27,6	14,3	6,0	27,2	89,0	279,6	45,8	33,4	579,7	x	x	x	x	x	x	x	x	20
21	17,2	47,1	78,9	66,1	211,8	57,4	33,4	84,1	385,9	644,6	256,9	213,8	2097,2	x	x	x	x	x	x	x	x	21
22	50,2	112,8	339,0	245,5	716,6	172,9	147,5	201,9	747,3	999,1	365,5	317,5	4416,0	x	x	x	x	x	x	x	x	22
23	6,0	6,6	52,6	48,4	24,2	5,3	4,8	-	-	-	-	-	148,0	x	x	x	x	x	x	x	x	23
24	825	330	950	1056	2755	1183	898	2183	10247	6807	6515	5326	39075	x	x	x	x	x	x	x	x	24
25	473	329	926	980	2700	1085	818	1730	9005	5836	5974	4878	34684	x	x	x	x	x	x	x	x	25
Design of an input-output table "SNA 5.0" including biological self-production, prices at work	Data source: Input-Output Tabelle 2006 zu Herstellungspreisen, Inländische Produktion, Statistisches Bundesamt, Statistisches Jahrbuch 2010, p.654-655.																					
	Draft: Leontief-Institute for Economic Analysis Berlin, oekonom@hwr-berlin.de, April/May 2018																					

Appendix B

Gross Domestic Product, Gross National Income, and National Income

	2014	2015	2016	2018
Changes compared with previous year in %				
At current prices				
Private consumption	1,9	2,3	2,7	3,8
State consumption	3,9	4,1	4,8	3,7
Gross fixed investments	5,4	3,0	4,3	4,9
Domestic use	2,7	2,6	3,3	4,2
Exports	4,5	6,4	1,6	6,4
Imports	2,0	4,1	1,4	7,9
Gross Domestic Product (GDP)	3,8	3,8	3,3	3,8
Gross National Income	3,5	3,7	3,1	4,0
National Income	3,7	3,8	3,2	4,1
Income of employees	3,9	3,9	3,8	4,3
Net operating and investment income	3,3	3,8	2,1	3,9
Disposable income of private households	2,4	2,6	2,9	3,9
Adjusted for price, interlinked				
Private consumption	1,0	1,7	2,1	2,0
State consumption	1,5	2,9	3,7	1,4
Gross fixed investments under it:	3,7	1,5	3,1	3,0
Equipment investments	5,9	3,9	2,2	3,5
Building investments	2,3	-1,4	2,7	2,6
Domestic use	1,3	1,6	2,4	2,2
Exports	4,6	5,2	2,6	4,7
Imports	3,6	5,6	3,9	5,2
Gross Domestic Product (GDP)	1,9	1,7	1,9	2,2
GDP per workforce	1,1	0,8	0,6	0,8
GDP per workhour	0,8	0,7	1,3	1,0
Gross value added altogether under it:	1,9	1,5	1,9	2,2
Processing industry	5,8	1,9	2,1	2,7
Contributions to growth of GDP adjusted for price in percent points				
Private consumption	0,5	0,9	1,1	1,1
State consumption	0,3	0,6	0,7	0,3
Gross fixed investments under it:	0,7	0,3	0,6	0,6
Equipment investments	0,4	0,3	0,1	0,2
Building investments	0,2	-0,1	0,3	0,3
Stock changes and the like	-0,3	-0,3	-0,2	0,1
Domestic use	1,2	1,5	2,2	2,1
Net export	0,7	0,2	-0,3	0,2
<i>Source: Press release of Federal Statistical Office, Germany, 11th January 2018, 11/18, p. 4.</i>				

Appendix C

Net reproduction rate in selected countries *)

Country \ Year	1955/50 1970/65 1985/80 2000/1995 2015/2010				
	1	2			
Europe					
Germany	0,85	1,02	0,70	0,64	0,63
Belgium	1,06	1,10	0,76	0,75	0,71
Denmark	1,19	1,04	0,69	0,83	0,78
Estonia	0,93	0,95	0,98	0,59	0,61
Finland	1,37	0,98	0,81	0,83	0,74
France	1,26	1,23	0,90	0,83	0,89
Greece	1,02	1,07	0,91	0,62	0,60
Italy	1,09	1,15	0,74	0,58	0,59
Latvia	0,90	0,85	0,94	0,53	0,56
Lithuania	1,20	1,07	0,97	0,66	0,57
The Netherlands	1,41	1,30	0,73	0,74	0,73
Poland	1,52	1,05	1,11	0,70	0,63
Portugal	1,24	1,27	0,93	0,70	0,69
Romania	1,27	1,35	1,06	0,62	0,65
Russian Federation	1,25	0,95	0,96	0,58	0,56
Sweden	1,04	0,99	0,79	0,73	0,65
Spain	1,17	1,34	0,84	0,55	0,54
Turkey	2,29	2,12	1,74	1,23	0,99
United Kingdom	1,02	1,20	0,87	0,82	0,77
Africa					
Egypt	2,07	2,28	1,95	1,52	0,99
Algeria	2,30	2,73	2,69	1,45	0,98
Cameroon	1,57	1,95	2,35	1,87	1,54
Kenya	2,32	2,87	2,97	1,77	1,30
Nigeria	1,90	2,12	2,36	2,16	1,76
South Africa	2,10	2,32	1,94	1,30	0,84
Tunisia	2,21	2,50	2,05	1,05	0,99
Uganda	2,09	2,40	2,45	2,33	2,50
America					
Argentina	1,37	1,37	1,47	1,24	1,05
Brazil	2,27	2,16	1,60	1,05	0,98

Appendix C

1	2				
Costa Rica	2,68	2,53	1,65	1,35	1,16
Jamaica	1,72	2,50	1,68	1,18	1,00
Canada	1,74	1,20	0,78	0,77	0,79
Colombia	2,44	2,56	1,65	1,30	1,12
Mexico	2,49	2,81	1,92	1,28	1,04
Panama	2,22	2,43	1,62	1,23	1,03
Paraguay	2,76	2,75	2,36	1,91	1,51
United States	1,60	1,20	0,87	0,98	0,92
Asia					
Afghanistan	1,76	2,01	2,09	2,07	2,03
Bangladesh	1,81	2,16	1,89	1,54	1,28
China ¹⁾	1,85	2,44	1,12	0,80	0,88
India	1,63	1,87	1,68	1,38	1,01
Indonesia	1,56	1,88	1,65	1,16	0,99
Japan	1,19	0,97	0,85	0,68	0,69
Dem, People's Rep, Korea	1,22	1,91	1,31	0,92	0,97
Republic of Korea	1,79	1,83	1,10	0,70	0,79
Pakistan	1,80	2,05	2,27	2,17	1,77
Philippines	2,51	2,57	2,11	1,67	1,10
Thailand	2,41	2,48	1,37	0,99	0,89
Australia ²⁾	1,48	1,35	0,93	0,85	0,86
New Zealand	1,63	1,51	0,93	0,94	0,90

*Data of United Nations, medial variant; Revision 2000. The net reproduction rate informs to which extent a generation of women is replaced by daughters born by these women under certain birth and mortality conditions. A rate of 0.64 for example means that there were born 36% less daughters to replace the full female population.

¹⁾ Without data of Hong Kong, Macao, and Taiwan.

²⁾ Including Christmas islands, Cocos islands, Norfolk islands.

Source: World Population Prospects, UN, New York. Taken from: Statistisches Bundesamt, Statistisches Jahrbuch 2002 für das Ausland, p. 200; Maier, 2016.

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