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Beyond GDP: Social Progress Indicators from the System of National Accounts

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Beyond "GDP": Social Progress Indicators from the System of National Accounts

Robert Johnston*

"How? Fulfilling the social progress agenda"
"What? Producing innovative actionable knowledge"
"For Whom? Reaching actors across the spectrum"
IPSP: Work Programme 2024-2027

Summary and introduction

Simon Kuznets launched the full quantification of J.M. Keynes's macro-economic framework and analysis first put forward in *The Economic Consequences of the Peace* (1920) in his report to Congress in 1934 on "national income" (Kuznets et al., 1934). However, notwithstanding Kuznets's report's title, both studies were focused largely on industrial production, not income. This foundation was strengthened when the systematic measurement of industrial production became instrumental in organizing both the United Kingdom and United States mobilization in World War II, and was firmly fixed in place with the rebuilding of Europe that followed the war, reaching its full impact with the "golden age" of economic growth in the 1950s and '60s (United Nations Secretary-General, 1965, United Nations Statistical Office, 1964, Organisation for Economic Co-operation and Development, 1970).

Yet, caution against interpreting the national accounts aggregates "national income" or "national product" as a measure of welfare, or "progress," was introduced even with the first accounts in Kuznets's letter of transmittal to Congress and a steady drumbeat of criticisms has emerged in recent decades, mainly focused on "quality of life," inequality, "diseconomies" (the term is from Lewis, 1968), environment and sustainability concerns (see the second part of the References below). The general term "Beyond GDP" has gained attention as an umbrella term for all these kinds of criticisms but as used here refers to the obsession in media, economics and national policy making with the single national accounts production aggregate "GDP" as a measure of "progress." The present paper avoids most of the extremes taken up in the criticisms and instead looks behind this single number to show that the underlying accounts can provide a rich foundation for economic indicators focused on social progress, mainly indicators on household income and consumption, and a solid foundation for accounts of the greenhouse gas emissions behind climate change, a significant factor in social progress.

Specifically, it proposes:

a) "GDP" as the de facto primary indicator of national economic welfare be complemented in common usage by the new 2025 SNA aggregate "disposable income adjusted for social transfers in kind";

b) The ratio of the top 50 per cent of income households to the bottom 50 per cent be adopted as a preferred indicator of inequality (comprehensive data for nearly all countries are available);

c) "Social protection" (welfare) transfers from government for pregnancy, childbirth,

childcare and home care be reclassified in the national accounts from transfers to primary (wage) income;

d) The international classifications of industry and final consumption expenditure data in the national accounts be integrated with GHGs data to establish "greenhouse gas emissions accounts," that is, total emissions classified with value added in each branch of economic activity and according to final consumption expenditures.

Table 3 in the Concluding notes summarizes the discussed indicators. An Addendum details the evolution of recommended household income and consumption definitions in the SNA recommendations from the first comprehensive international recommendations in 1968 up to the latest version, now in press. An Annex reproduces for reference the main sections of the international classifications of industry (branches of economic activity) and of final consumption, which are fundamental to the structure of the accounts and analysis of the data.

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I. Household economic well-being

This section considers the development of household economic well-being indicators within the national accounts framework. This is now possible with the addition of a household income aggregate to the 2025 SNA recommendations and building on the addition of government and non-profit services to households in the household consumption aggregate in the 2008 SNA.1/

Household income and consumption

National accounts pioneer Kuznets prefaced his 1934 report to Congress on "national income" with a clear caution, "The welfare of a nation can … scarcely be inferred from a measurement of national income as defined above" (Kuznets et al. 1934).2/ From then to now, debate has raged about whether "national income" should be used as virtually a measure, or even a proxy measure, of "progress," and what should be included or excluded (see, for example, Coyle, 2025, pp. 12-16, and the second part of the References, below), but there can be no doubt that household income is a major component of household welfare. The United States Federal Reserve judiciously refers to "household *economic* well-being" (emphasis added) in its household survey program, avoiding addressing some of the more qualitative aspects of household and individual welfare (United States Federal Reserve, 2024), and this seems a more accurate term. Still, if we look inside gross domestic product, household income and consumption correspond closely to economic measures of household economic welfare, but in most economic references, these series are little used compared to the emphasis among economists, policy analysts and media on GDP per capita.3/

Thus, it pays to take a closer look behind the GDP aggregate number for measures that may more properly serve the purpose of measuring the impact of general, national, economic "progress" on people. Fundamental for this purpose, in economic terms, are measures of household income and consumption, as stated in the 2025 SNA: "Other than GDP, there is a wide

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1/ The development of social indicators at OECD and United Nations from the early 1970s suggested an alternative or complementary approach to measuring social welfare progress as it focused on "outcome" measures of well-being, not intermediate programs and economic activities (Organisation for Economic Cooperation and Development, 1972, 1982, United Nations Statistical Office, 1977, 1978, 1989). This approach was fundamental to the development of the Millennium Development Goals indicators following the United Nations Millennium Summit in 2000 (United Nations Secretary-General, 2001, and United Nations General Assembly, 2002, Johnston, 2023).

2/ Meanwhile, President Franklin Roosevelt's Secretary of Labor from 1933 to 1945 Francis Perkins took a more direct view of social progress, designing and implementing an avalanche of labor and social protection legislation, complementing the New Deal industrial policies (Perkins, 1946).

3/ For example, *The New York Times* runs a daily set of charts "What Is Happening in Other Markets and the Economy". None of these charts relates to aggregate household income and consumption.

range of data and aggregate measures contained within the SNA's integrated framework that can be used to inform the discussion of well-being and sustainability. These include measures of household disposable income, consumption, saving and net worth" (para. 2.5, United Nations Intersecretariat Working Group on National Accounts, 2025).

The Addendum below outlines the development of aggregate measures of household income and expenditure in the international national accounts recommendations since the United Nations *A System of National Accounts* was published by the United Nations Statistical Office in 1968, in the midst of the booming industrial prosperity of the 1960s (OECD, 1970). It set out systematically sources and methods of accounting for production and consumption but income was treated superficially as an intermediate process and household income was neglected altogether. Soon the main aggregate of the SNA, GDP, became the world's prime measure of economic development, growth and prosperity, despite the long-standing caution that GDP was not an appropriate measure of "welfare" or "well-being."

Recognizing the limited treatment of income in the 1968 SNA, the Statistical Office prepared and published the *Provisional Guidelines on Statistics of Income, Consumption and Accumulation of Households* (United Nations Statistical Office, 1977). Within the framework of national accounting, it recommended household income as the main aggregate measure of household economics from a welfare standpoint, a series which had not appeared in the 1968 SNA and to this day is not included in the comprehensive international national accounts databases of the United Nations Statistics Division and World Bank Development Indicators. A close counterpart to household income is "final consumption expenditure of households" (1968 SNA, pars. 6.79 ff.), which is reported in the United Nations and World Bank databases but seldom if ever cited as a measure of household economic level of living, and it actually overlooks some principal components of household welfare as it does not include government and non-profit services directly consumed by households. More comprehensive series are described in the *Provisional Guidelines* to include:

> "Income due to free or reduced cost services furnished by government and private institutions and industries and due to government subsidies" (Table 2.1.C, and paras. 2.11 and 5.7-5.9).

In the *Guidelines*, this consumption expenditure is added to "final consumption expenditure of households" to calculate "total available household income" (*Provisional Guidelines,* Table II.1 C).

While the *Provisional Guidelines* were not officially endorsed by the United Nations Statistical Commission, a comparable measure of consumption is included in the 2008 SNA as "Household actual final consumption expenditure" (paras.9.16-9.17 and 9.81-9.83) including "social transfers in kind" from government and non-profit institutions serving households. Still, while "social transfers in kind" was included in "Actual final consumption of households" in the 2008 SNA (United Nations et al. 2009), it was not included in any income measure.

However, the more comprehensive series is now recommended in the 2025 SNA, "Disposable income adjusted for social transfers in kind" (pars. 9.149-9.152, 10.101-10.102 and 10.105, see also the Addendum below). Government and non-profit "social transfers in kind" is described in the 2025 SNA as follows (pars. 9.148 and 9.150):

"Social transfers in kind consist of goods and services provided to households by government and NPISHs either free or at prices that are not economically significant. [emphasis in the original]. … [They] consist of final consumption expenditure undertaken by governments and NPISHs on behalf of households."

"Disposable income adjusted for social transfers in kind" is based on the classifications of final consumption expenditure of general government and non-profit institutions serving households, which are currently recommended in the new reference Classification of Expenditure According to Purpose 2018 "COICOP" (United Nations Statistical Division, 2023, see also Annex A below). That is:

14.1, 15.1 Housing
14.2, 15.2 Health
14.3, 15.3 Recreation and culture
14.4, 14.4 Education
15.4, 15.5 Social protection

Here, it would also be important to include section 07.3 of the classification, "Passenger transport services" (public transport support).

Using these series, important indicators would be:

a) Value of free and subsidized goods and services to households ("social transfers in kind") as a percentage of "actual final consumption" of households;

b) Value of free and subsidized goods and services to households as a percentage of "disposable income including adjustments for social transfers in kind";

c) Value of free and subsidized goods and services provided by general government to households as a percentage of total government expenditures.

These aggregates would provide significant measures of household economic welfare for monitoring, policy analysis, and for public understanding and for international comparisons of population economic well-being, instead of GDP as it is now commonly used. They also provide measures of governments' provision of actual goods and services to households, as distinct from transfers.

Indicators of poverty, inequality and a decent wage

Clearly household economic welfare is also very much influenced by the work circumstances of household members. Thus the International Labour Organization has developed the concept "decent work," which goes back to the Treaty of Versailles endorsement of "a living wage" (Reynaud, 2017). In the Sustainable Development Goals indicators, decent work in Goals 8 and 10 is seen in terms of average hourly earnings of employees, unemployment, child labor, occupational injuries, compliance with national and international labor rights instruments, while in relation to the national accounts the SDG/ILO indicator 1.1.1 is especially important:

a) "Working poverty rate (percentage of employed below US$2.15 PPP)(%)";

Also valuable would be:

b) SDG indicator 10.2.1 "Proportion of people living below 50% of median income": and

c) Median household earned income as a proportion of the national poverty line;

d) Median household earned income as a proportion of national mean disposable income.

From an equalitarian point of view, obviously a dollar spent on food and clothing by a very poor household has a completely different importance to the household than a dollar spent on a hundred-dollar dinner in a restaurant for the ten per cent. Many measures have been proposed and debated to capture this difference. The indicator agreed for the SDGs was:

> Indicator 1.1.1. Growth rates of household expenditure or income per capita among the bottom 40 % of the total population (United Nations General Assembly, 2017).

However, data are available for this indicator for relatively few countries (United Nations Statistics Division, 2026). Two simple indicators, intuitively clear and with readily available data for most countries in the World Inequality Database are:

a) Ratio of the disposable income of the top ten per cent to the lower 50 per cent.

This is a good measure to capture this inequality as the popular Gini coefficient is strongly influenced by the well-offness of the 50-20 per cent;

b) Ratio of the disposable income of the top 50 per cent of the household income distribution to that of the lower 50 per cent.

For Example:	2024	Ratio top 10 to bottom 50 per cent	Ratio top 50 to bottom 50
China		3.2	6.4
France		1.7	3.9
India		4.4	6.5
Mexico		7.7	12.0
United States		3.5	6.5

Source: "World Indicators Database," wid.world, updated March 24, 2026.

A decent wage and recognizing women's work in the national accounts

The concept of "decent wage" should also be applied to pregnancy and childbearing, and to childcare and home care in the household, as socially significant "work". Currently such support from governments is classified as social protection expenditure, or "welfare" transfers, but should be reconsidered in the national accounts as primary (wages) income. This would not change the total GDP but change the narrative from unproductive, redistributive "social welfare" to socially important household production and encourage a conceptually sounder analysis of women's contribution to economic activity, responding to long-standing arguments for including women's work at home as economic activity (Brooks, 2025, Callaci, 2025, "International Wages for Homework Campaign", Wikipedia, 2025, Ruppanner, 2025).

II. GDP, sustainability and climate change

The more extreme critics of GDP call for abandoning GDP growth as a social objective or even for opting for "degrowth" (for example, Cohen, Daly, Kahloon, Pilling, Saito, Susskind) and clearly, according to nearly every indicator we have of sustainability in the SDGs, economic growth as measured by GDP is unsustainable but with unclear specificities and time frame. (Global Footprint Network, 2024, IPBES, 2026, Richardson, 2023, Wilson, 2017, World Wildlife Fund, 2024).

Several types of response to this unsustainability of GDP as a driver of GHGs and climate change have been proposed: (a) convert GDP to carbon-light services, (b) decarbonize our material production and consumption with a combination of renewable energy and more carbon-efficient production processes, (c) more controversially as to its practicalities, decarbonize our environment with carbon removal and geo-engineering, and (d) change lifestyles to emphasize "qualitative" aspects over economically measurable ones. In order to break analyze the relation of GDP sustainability, we can take a clue from SDG indicator 7.3.1 "Energy intensity measured in terms of primary energy and GDP" (United Nations General Assembly, 2017) and suggest a program to calculate greenhouse gas emissions per unit of value-added in each of the sections of the International Classification of Economic Activities and in each category of final consumption expenditure (see these classifications in the Annex). This would begin to tell us where the problems and possibilities lie in both services and goods production, leading to fact-based policy development to address climate change seriously and to policy analysis and revisions of the SD Goals and targets. Such accounts would require mapping available source data onto the United Nations economic classifications.

There are currently several published breakdowns of greenhouse gases emissions by "sector" (for example United States Environmental Protection Agency, 2026, United Nations Intergovernmental Panel on Climate Change, 2022) but these do not correspond to the United Nations classification of economic activity (2025) and do not attempt any analysis of intensity in terms of economic output or value added. The national accounts could be linked with greenhouse gases by disaggregating emissions according to kind of economic activity and by final consumption expenditure in the domestic market. Thus a column would be added to national accounts tables of GDP classified according to the International Standard Classification of All Economic Activities, Revision 5 (United Nations Statistics Division, 2025), and the Classification of Individual Consumption According to Purpose 2018 COICOP (United Nations Statistics Division, 2023). Summaries of these two fundamental classifications are shown in the Annex below. This would extend to a comprehensive framework the work of the OECD on energy and carbon intensity in industry (OECD, 2024 and 2025).

Table 1. GDP and GHGs by kind of economic activity

	Value added	GHGs in value-added
A. Agriculture, forestry and fishing		
…		
U. Activities of extraterritorial organizations and bodies		

Table 2. GHGs by final consumption expenditures

	Total expenditure	GHGs
01 Food and non-alcoholic beverages		
…		
15 Individual consumption expenditure of general government.		

Concluding notes

"Beyond GDP" can mean many things and many alternative or modified GDP measures, methods and indexes have been suggested, though none actually proposes revisions to the national accounts in any technical detail. The construction of alternative sets of accounts could certainly yield very significant results but would involve considerable resources and highly specialized expertise, a time-frame to ensure continuity over time (one of the major advantages of official statistics is significant continuity in personnel and methods), and numerous contentious decisions on what to count, how to count it and what to call it. The latest revision of the SNA recommendations (2025 SNA, in press; the last revision was the 2008 SNA) discusses many of these concerns at length but hardly makes any fundamental changes in the central recommendations, except in household income and consumption, as discussed here.

The strong conclusion of sustainability measurement is that current GDP and GDP growth are fundamentally unsustainable in their present form (see, for example, Richardson, 2023, and Global Footprint Network, 2024). This is hardly new or surprising but SNA branch of industry and final consumption expenditure GHG accounts could contribute to a much better understanding of where improvements could be made in statistics and analysis on climate change through calculating GHGs per unit of value-added in the standard industrial branches and in consumption expenditures (see Annex). Present accounting frameworks for analysing GHGs have proven seriously inadequate or disregarded in practice (carbon pricing, "net zero," corporate ESG accounting, country reporting under the Paris Agreement) for lack of standards, any generally accepted responsible international oversight and biased self-reporting, but the standard national accounts framework and standard classifications could provide a solid foundation for undertaking such analyses on a step-by-step basis and ensuring that ghg accounts cover all emissions.

Table 3: Summary: What we value and indicators from national accounts

Household economic well-being

1. Household disposable income (2025 SNA)
2. Public goods and services provided to households in kind: "Transfers in kind," SNA 2025 and Individual consumption expenditure of general government and non-profit institutions serving households (2023 Classification of Individual Consumption)
3. Disposable income adjusted for transfers in kind (2025 SNA)
4. Value of free and subsidized goods and services provided by general government to households as a percentage of total government expenditures

Less income inequality for the top ten per cent and the bottom 50 per cent

5. Ratio of the disposable income of the top ten per cent of the household income distribution to the lower 50 per cent
6. Ratio of the disposable income of the top 50 per cent of the household income distribution to that of the lower 50 per cent

Comprehensive time series for these indicators are available for most countries in wid.world.

Decent wages for pregnancy, childbirth, childcare and home care

7. General government payments to households for pregnancy, childbirth, childcare and home care (reclassifies government transfers as wages (primary income)

Addressing climate change

Greenhouse gas emissions

8. By branch of economic activity
   Per unit of value added
9. By object of final consumption expenditure
   Per currency unit of expenditure

Addendum

Household income and consumption aggregates as measures of household economic welfare in the national accounts recommendations, 1968-2025

1968 SNA (United Nations Statistical Office, 1968)

"Final consumption expenditure of households," paras. 6.69 ff.

No household income aggregate is specified.

Preliminary Guidelines on Household Income, Consumption and Accumulation (United Nations Statistical Office,1977)

"Final consumption expenditure of households" (same as 1968 SNA)

"Total available household income," Table 6 II.1A, para. 2.72

Adding "Income due to free or reduced cost services furnished by government and non-profit services directly consumed by households to final consumption expenditure of households and total available household income" gives us:

"Total consumption of the *population*" and

"Total available income of the *population*," paras. 2.10-2.11 and Table II.1C (emphases added).

2008 SNA (United Nations et al., 2009)*

(a) "Household final consumption expenditure," paras. 9.56-9.80.

Adding "social transfers in kind" from government and non-profits serving household (as recommended in the *Provisional Guidelines)* gives us:

(b) "Household *actual* final consumption," paras. 9.81-9.83 (italics added).20

No household income aggregate is specified.

*Within "Actual final consumption of general government," the 2008 SNA refers to "expenditure on individual goods or services provided as social transfers in kind to households" (par. 9.103) but does not consider it as part of household income.

2018 The *Classification of Individual Consumption According to Purpose (COICOP),* (United Nations Statistics Division, 2018)

adds for the first time (summarized below):

14 Individual consumption expenditure of Non-profit Institutions Serving Households

15 Individual consumption expenditure of general government

"2025 System of National Accounts" (United Nations Intersecretariat Working Group, 2025, publication in press), paras. 2.5 and 2.58, and Tables 3.3 and 3.7. Here, the SNA recommendations add for the first time a household income aggregate and include the *Classification of Individual Consumption* sections 14 and 15 shown above:

(a) "Household disposable income";

(b) "Disposable income adjusted for transfers in kind"

(2008 SNA, para. 7.2, and 2025 SNA, Table 3.3).

Annexes

A. *Classification of Individual Consumption According to Purpose (COICOP) 2018* (United Nations Statistics Division, 2018)*

01 Food and non-alcoholic beverages
02 Alcoholic beverages, tobacco, etc.
03 Clothing and footwear
04 Housing, water and fuel
05 Furnishings, household equipment
06 Health
07 Transport
07.3 Passenger transport services
08 Communication
09 Recreation and culture
10 Education
11 Restaurants and hotels
12 Social protection
13 Miscellaneous goods and services
14 Individual consumption expenditure of non-profit institutions serving households (NPISHS)
14.1 Housing
14.2 Health
14.3 Recreation and culture
14.4 Education
14.5 Social protection
14.6 Other services

15 Individual consumption expenditure of general government

- 15.1 Housing
- 15.2 Health
- 15.3 Recreation and culture
- 15.4 Education
- 15.5Social protection

*"5. In the SNA, the individual consumption expenditures of both NPISH and general government are termed *social transfers in kind"* and are added to the individual consumption expenditures of households to obtain aggregate called *actual final consumption of households* (or *actual individual consumption). ...* 6. COICOP is an integral part of the SNA, but is intended for use in several other statistical areas. … " (emphases in original).

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B. *International Standard Industrial Classification of All Economic Activities, Rev. 5* (United Nations Statistics Division, 2025)

Section	**Title**
A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade
H	Transportation and storage
I	Accommodation and food service activities
J	Publishing, broadcasting, and content production and distribution activities
K	Telecommunications, computer programming, consultancy, computing infrastructure, and other inform service activities
L	Financial and insurance activities
M	Real estate activities
N	Professional, scientific and technical activities
O	Administrative and support service activities

P	Public administration and defence; compulsory social security
Q	Education
R	Human health and social work activities
S	Arts, sports and recreation
T	Other service activities
U	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
V	Activities of extraterritorial organizations and bodies

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