

Building a Comparable Measure of Consumption: Concepts and Measurement Challenges Faced by Emerging and Advanced Economics

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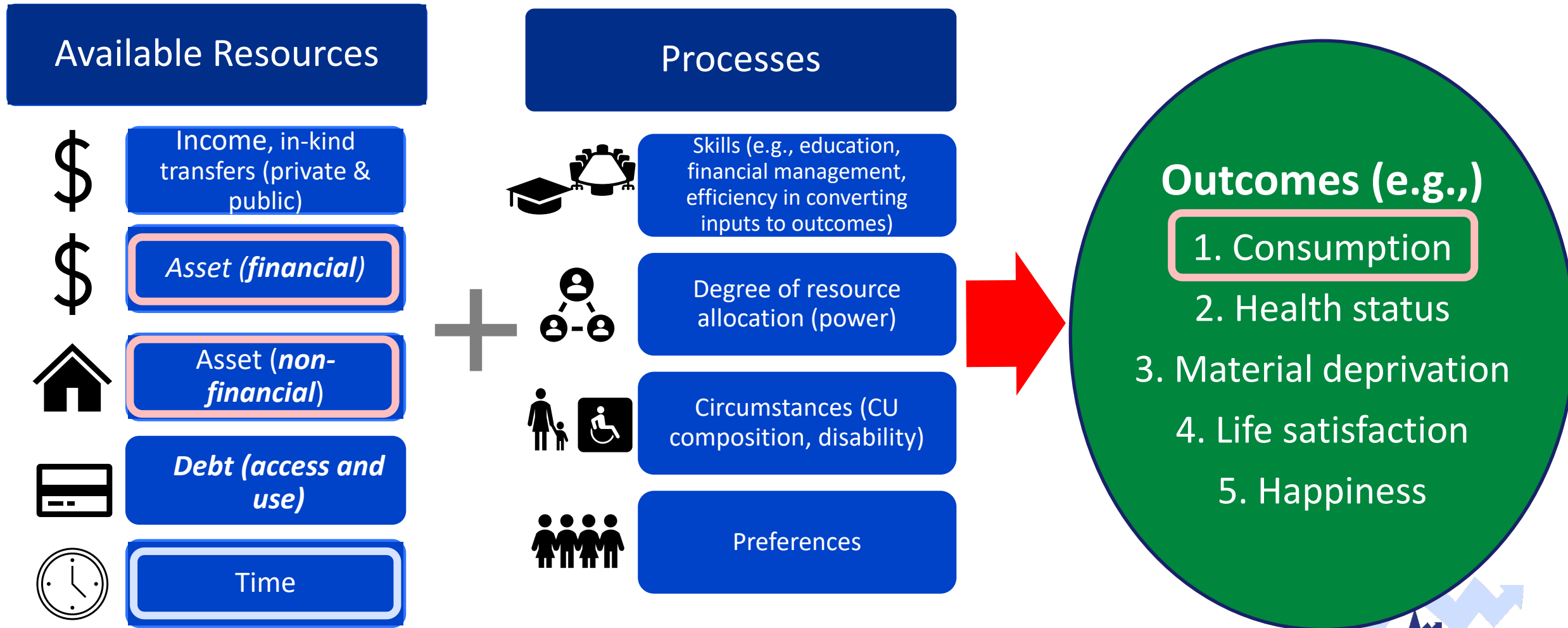
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Consumption as a Well-being Outcome: A Function of Resources and Processes



Objectives of this Study

- Expand our understanding of consumption versus consumption expenditures
- Take stock of differences across countries and cross-national household survey data
 - ▶ Conceptual elements of consumption as defined and applied in emerging and advanced countries
 - ▶ Data collection efforts based on household surveys
- Refine current conceptual frameworks for defining a comparable consumption-based well-being concept
- Provide an empirical - descriptive & distributional - analysis by components and demographic groups across countries with case studies
 - ▶ Low income: Mali
 - ▶ Lower Middle Income: Laos and Palestine
 - ▶ Upper Middle Income: Peru and Georgia
 - ▶ High Income: Italy, France, United Kingdom, and United States (US)
- ❖ First cross-national analysis of consumption patterns across these groups of countries

Contribution

- Updates and expands the literature on cross-national comparisons of household economic well-being focused on consumption/consumption expenditures
 - ▶ Builds on work of ILO, Eurostat, OECD, World Bank, UNICEF, and researchers therein (many of whom are here today)
 - ▶ Most relevant previous LIS-based research –Deaton and Zaidi (2002), Garner & Sierminska (2002) and Mancini & Vecchi (2022, 2023)

- Provides for an input in the production of joint distributions of income, consumption, and wealth studies
 - ▶ A better measure of economic well-being as opposed to single measures
 - ▶ Recommended in the report of Stiglitz, Sen and Fitoussi (2009)



Cross-national Work: Consumption/Consumption Expenditure “Databases”

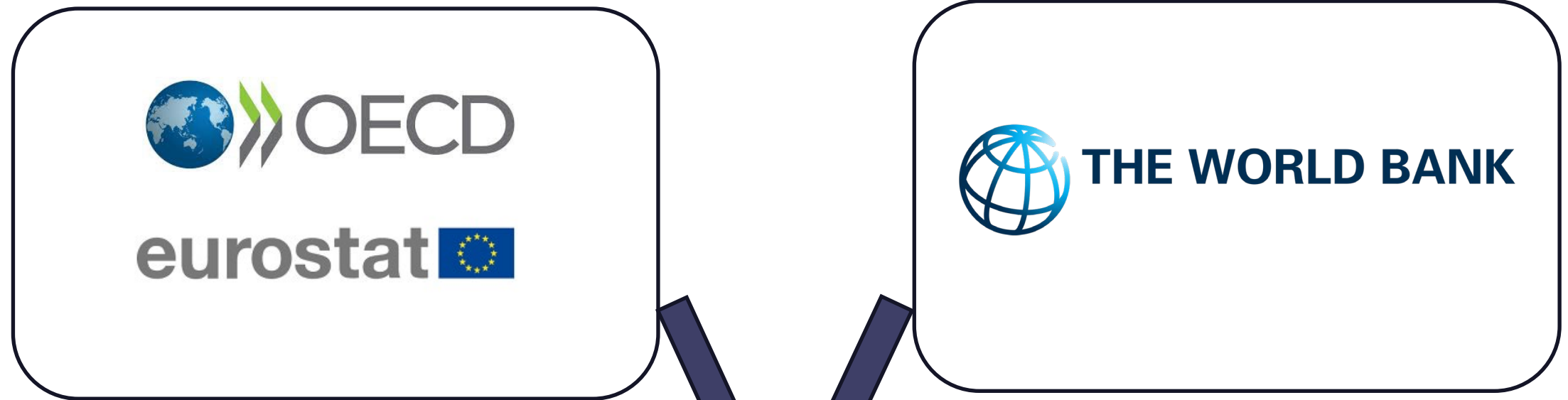
World Bank

- Long history of designing consumption surveys and analysis
- Global Consumption Database
 - ▶ International Comparison Program (ICP)
 - ▶ Households
 - ▶ Around 2010 –consumption/ consumption expenditures
 - ▶ Work done by World Bank staff

OECD/Eurostat

- Joint distribution Framework using 2013 COICOP
- Empirical analysis 2023
 - ▶ Households
 - ▶ Around 2015 – consumption expenditures
 - ▶ Work done by country representations or Eurostat

Build a New Cross-national Database with Comparable Consumption/Consumption Expenditure



Luxembourg Consumption Study (LCS)

Approach to Building a Luxembourg Consumption Study Database

- Expand the cross-national database coverage in the Luxembourg Income Study Program (LIS) beyond income and wealth, first pulling from household survey data currently in the LIS and adding to this
- Follow best practices in building cross-national databases, and utilize the extensive experience of national cross national statistical offices, and researchers
- Build a system of comparable
 - ▶ Variables
 - ▶ Aggregation plan
- Provide guidance to statistical office authorities in building a consumption-based economic well-being measure at the household level



LCS Criteria for Selection of Survey

- Consumption measure satisfies following conditions
 - ▶ Comprehensive
 - ▶ Relevant
 - ▶ Reflects consumption at market prices
- Operational comparability of measures
 - ▶ Measure includes the main consumption components
 - ▶ Regardless of any methodological differences in the estimation of these components e.g., owned shelter

Key Issues Related to Measurement Preference

- Reference unit: household
- Main household economic well-being measures
 - ▶ Consumption expenditures
 - Consumption
- Reference period: annual
- Valuation: country specific currency
- Real versus nominal consumption: nominal
- Future: within year temporal inflation and spatial price difference:
 - ▶ Dependent upon whether hyper inflation
 - ▶ Dependent upon major difference across geographic areas within country
- Treatment of lumpy expenditures (“special occasion”) dependent on country and data availability



LCS Framework: Components and Aggregate

- Start with OECD framework for the joint distribution of income, consumption, and wealth (ICW) using Classification of Individual Consumption According to Purpose (COICOPs, UN 2018)
- For most components, consumption proxied by expenditures on goods and services purchased for final use by the household (“acquisitions approach” as opposed to use or payments)
- Estimated or imputed value for non-monetary goods and services
 - ▶ Flow of services from shelter and durables
 - ▶ Goods and services produced and consumed including domestic services by the same household
 - ▶ Inter-household sales/transfers of goods and services (sale, barter, in-kind, gifts)
- ❖ Out of scope: Social transfer in-Kind (StiK) public/general health and education services (“collective”)

LCS Household Consumption: Main Components

■ Non-durable consumption

- ▶ Follows COICOP 2018
- ▶ Food and alcoholic beverages
 - Purchased
 - Home produced
 - Gifts, subsidies, rations
- ▶ Non-food and other non-durables

■ Housing

- ▶ Follows COICOPs 2018
- ▶ Owned and rented (imputed rent)
 - Purchased
 - Home produced
 - Gifts, subsidies, rations
- ▶ Possible departure from COICOP for maintenance and repairs
- Consumption flows from durables

■ Excludes

- ▶ Purchase of durables
- ▶ Out-of-pocket spending on owned shelter and health
- ▶ Non consumption expenditures like allocations to pensions, child support payments

Availability and Valuation of Non-monetary-1

■ Flow of services from shelter

- ▶ Renters living rent-free or at paying less than market rent
- ▶ Owned shelter

■ Options to impute value

- ▶ Regression based models
 - Is market rental housing “like” other rental housing?
 - In similar neighborhoods?
 - Concentrated in rural versus urban areas?
- ▶ Rental equivalence or self-assessed market rent good proxy for flow of services
 - Knowledge of owner regarding local rents?
 - If not local rental market, knowledge of user costs?

Availability and Valuation of Non-monetary - 2

■ Flow of services of durable goods

- ▶ Cars, trucks, furniture, appliances, musical instruments, communication and information equipment
- ▶ What about when durable good can also be used for family business? (e.g., “tuk-tuks” used for transport of persons and goods for business purposes as well as for private use)
- ▶ Options
 - User costs: depreciation value over the period, opportunity costs of fixed capital, and owner’s expenses
 - Rental equivalence or rental value of comparable durable (e.g., rent of furniture)

■ Home production for own consumption – very, very important

- ▶ Domestic services: little or no data available for any of the countries
- ▶ Home-grown food: not available for more developed countries



Health and Education: Framework versus Empirical

- Researchers recommend excluding health
 - ▶ Greater expenditures not equal to greater well-being
 - ▶ Different provision of health care across countries
- More controversial, exclude education from consumption
 - ▶ Consumption or investment in human capital so more like investment
 - ▶ Different provision of education across countries
- *Our choice for empirical analysis*
 - Include out-of-pocket education expenditures
 - Include ONLY out-of-pocket health insurance premiums

Other Choices for Empirical Analysis

➤ *Include*

- Reported rental equivalence for owned shelter (widely available in our countries with exception of Laos and U.K.)
- Home-grown food
- Gifts, subsidies, and rations, e.g., for food and rent
- Shelter “minor” maintenance and repairs only if renters expected to have these
- For other insurance, out-of-pocket full premium paid

➤ *Exclude*

- Purchase and flow of services from durables (cars, trucks, furniture, appliances, communications equipment, recreation equipment)
- “Major” maintenance and repairs and capital improvements
- Other home production like for domestic services (e.g., childcare, lawn care)

Empirical Analysis



Distribution of Population (sqrt eq scale)

Person Characteristics	Mali 20		Laos 12		Georgia 21		U.S. 22	
	Q1	Q5	Q1	Q5	Q1	Q5	Q1	Q5
Consumption Quintile	Q1	Q5	Q1	Q5	Q1	Q5	Q1	Q5
Children (below 18 years of age)	21%	19%	24%	16%	22%	20%	29%	12%
Elderly (65 in years or above)	21%	21%	20%	20%	22%	14%	16%	24%



Percentage Household Consumption Shares

Component	Mali 20	Laos 12	Palestine 17	Peru 19	Georgia 21	Italy 16	France 10	U.K. 21	U.S. 22
Food	69.3	56.5	33.6	41.8	20.8	20.2	18.6	18.3	12.0
Alcohol	0.3	3.6	5.9	0.2	1.7	2.0	3.0	3.0	1.1
Clothing	6.4	2.6	5.7	4.7	6.0	5.4	4.9	4.7	3.2
Household furnishings	2.2	2.8	2.1	3.7	1.8	3.2	3.2	3.5	2.3
Transport	4.7	11.0	10.8	7.5	16.9	9.4	9.1	10.0	9.3
Communications	2.5	1.7	3.0	4.2	7.8	2.8	4.6	6.5	4.4
Recreation	0.5	6.1	2.1	3.6	1.5	5.1	5.8	11.1	4.1
Education	0.4	1.7	4.2	5.0	2.5	0.8	0.7	0.1	2.2
Restaurants and hotels	0.2	3.9	0.4	0.5	0.2	5.7	6.0	10.3	8.2
Insurance	0.1	0.2	4.2	0.2	1.5	3.3	8.1	5.3	8.6
Personal care	2.4	4.2	2.7	5.8	8.2	4.8	5.9	5.0	2.4
Housing	11.0	5.6	25.3	22.8	31.2	37.1	30.2	22.1	42.1
Household consumption (excluding durables)	100	100	100	100	100	100	100	100	100.0

Gini Index Consumption and Income (sqrt eq scale)

Measure	Mali	Laos	Palestine	Peru	Georgia	Italy	France	U.K.	U.S.
Household consumption	0.317	0.378	0.32	0.331	0.271	0.279	0.257	0.284	0.288
	(4)	(1)	(3)	(2)	(8)	(7)	(9)	(6)	(5)
Disposable household income	0.365	.	0.426	0.439	0.346	.	0.292	0.282	0.404
	(4)	.	(2)	(1)	(5)	.	(6)	(7)	(3)



% Contribution of Component to Inequality (Gini)

Component	Mali 20	Laos 12	Palestine 17	Peru 19	Georgia 21	Italy 16	France 10	U.K. 21	U.S. 22
Food	65.5	32.2	27.0	26.4	13.4	13.6	17.3	10.1	5.7
Alcohol	0.2	4.8	8.0	0.2	1.9	1.8	2.8	3.0	0.7
Clothing	6.2	3.7	7.2	4.3	8.4	7.0	4.8	6.3	2.8
Furnishings	1.9	4.1	2.2	4.4	2.6	4.1	5.7	4.2	3.4
Transport	6.1	18.2	15.6	9.3	29.5	11.0	11.3	11.6	10.0
Communications	3.6	2.4	3.4	5.8	7.0	2.2	2.3	2.2	2.4
Recreation	0.6	12.7	2.8	4.3	3.3	8.3	9.1	18.1	5.8
Education	0.9	3.4	6.9	9.6	6.6	1.1	1.1	0.2	4.7
Restaurants and hotels	0.1	6.0	0.7	0.4	0.4	9.9	9.6	17.1	10.5
Insurance	0.1	0.3	5.8	0.5	2.6	3.2	4.8	4.3	7.5
Personal care	2.5	7.6	2.3	6.1	6.9	7.5	9.2	7.5	2.8
Housing	12.3	4.5	18.0	28.8	17.4	30.2	21.8	15.6	43.7



Conclusion

- Aim of research thus far to clarify framework for building a comparable household economic well-being microdata base
- Build on
 - ▶ World Bank
 - ▶ OECD/Eurostat
 - ▶ Mancini and Vecchi (2023) foundation
- Expertise
 - ▶ LIS team contributes long-standing experience in cross-national harmonization
 - ▶ BLS team's rich expertise in defining conceptual borders of consumption versus expenditures in U.S. and advanced countries in general
- What we learned
 - ▶ Challenges regarding what to include versus exclude (e.g., minor versus major repairs), insurance
 - ▶ Critical to understand nuances of the data and country situations (e.g., structure of economy)

Invite You to be Part of Building LCS

❖ *Critical to have close cooperation with country partners*

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