



**United
Nations**

Department of
Economic and
Social Affairs

Population

Demographic-economic accounting: **Building on existing practices**

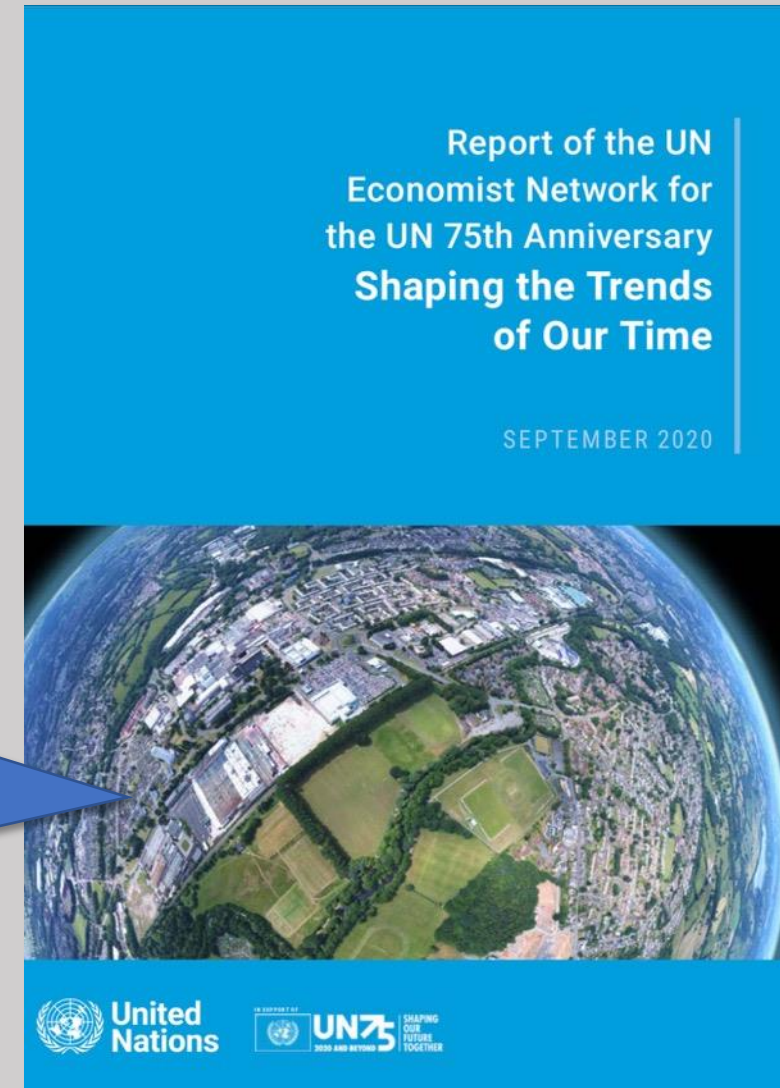
Tim Miller
Global Advisor on Population and Development
UN DESA
tim.miller@un.org

Beyond GDP Webinar
Priorities in measuring wellbeing, cohesion, and sustainability in African and Arab countries
Thursday, 1 December 2022

Like climate change, demographic shifts are a megatrend impacting sustainable development

UN Economist Network identified 5 megatrends impacting sustainable development:

climate change;
demographic shifts, particularly population ageing;
urbanization;
the emergence of digital technologies;
and inequalities.



Population Change -> Inclusive and Sustainable Development

Population age structure is changing rapidly around the world

$p(x,t)$

Many economic activities vary by age and gender, and these age and gender differences are changing, too.

consumption, labor earnings, savings, unpaid care work, use of health care and education services, etc.

$s(x,t)$

These changes have important implications for:

- Economic growth;
- Sustainability of systems of financial support from the family, the state, and financial markets.
- Inequality by age, gender, socioeconomic group, and generation.

$S(t) = \sum$

National Transfer Accounts provide the facts that link population to the economy



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$S(t) = \sum$

The NTA Balancing Flow Equation for Each Individual

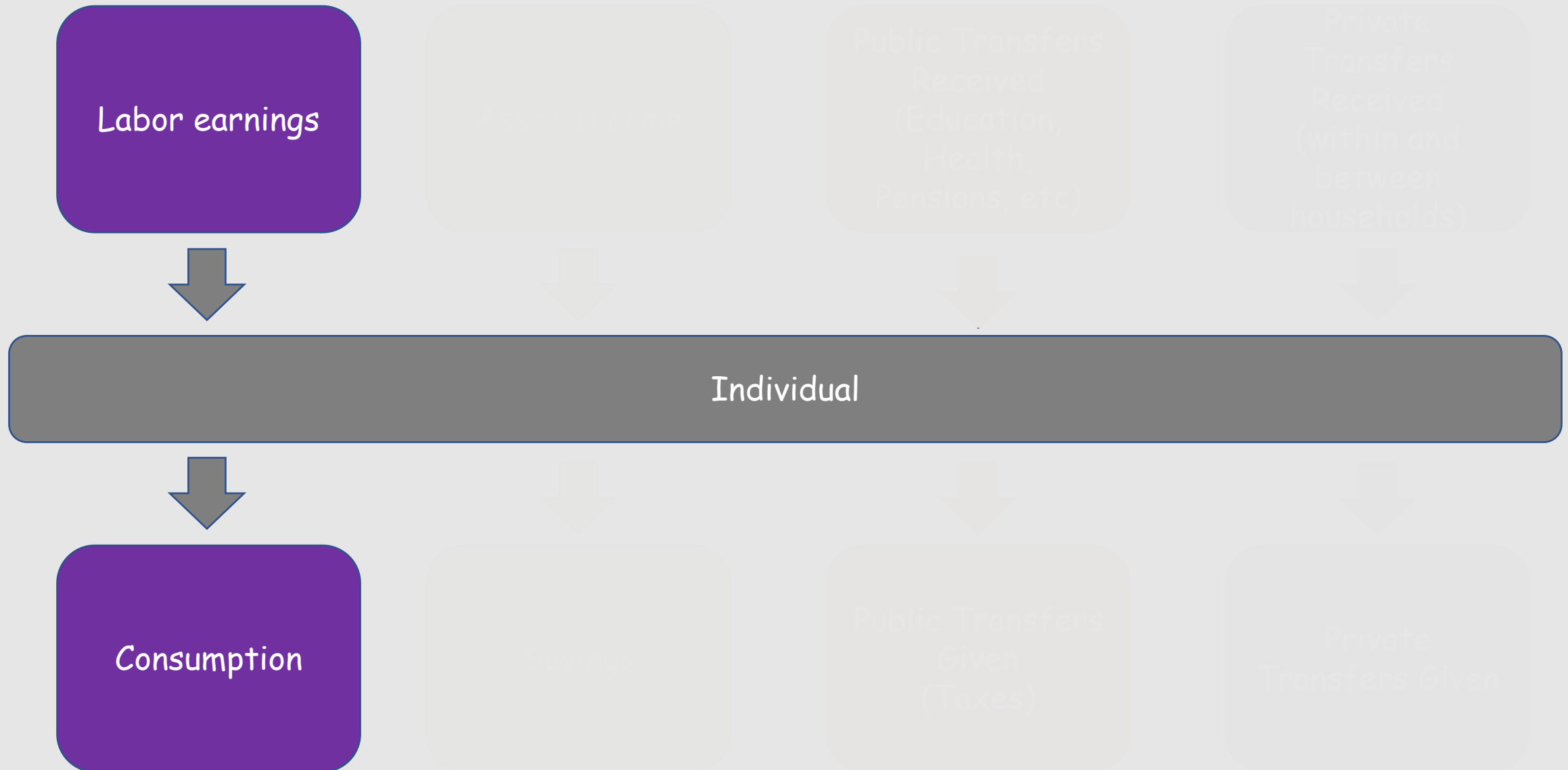
Inflows

```
graph TD; subgraph Inflows; direction TB; I1[Labor earnings]; I2[Asset Income]; I3["Public Transfers Received  
(Education, health, pensions, etc)"]; I4["Private Transfers Received  
(within and between households)"]; end; Individual[Individual]; subgraph Outflows; direction TB; O1[Consumption]; O2[Savings]; O3["Transfers Given  
(Taxes)"]; O4[Private Transfers Given]; end; I1 --> Individual; I2 --> Individual; I3 --> Individual; I4 --> Individual; Individual --> O1; Individual --> O2; Individual --> O3; Individual --> O4;
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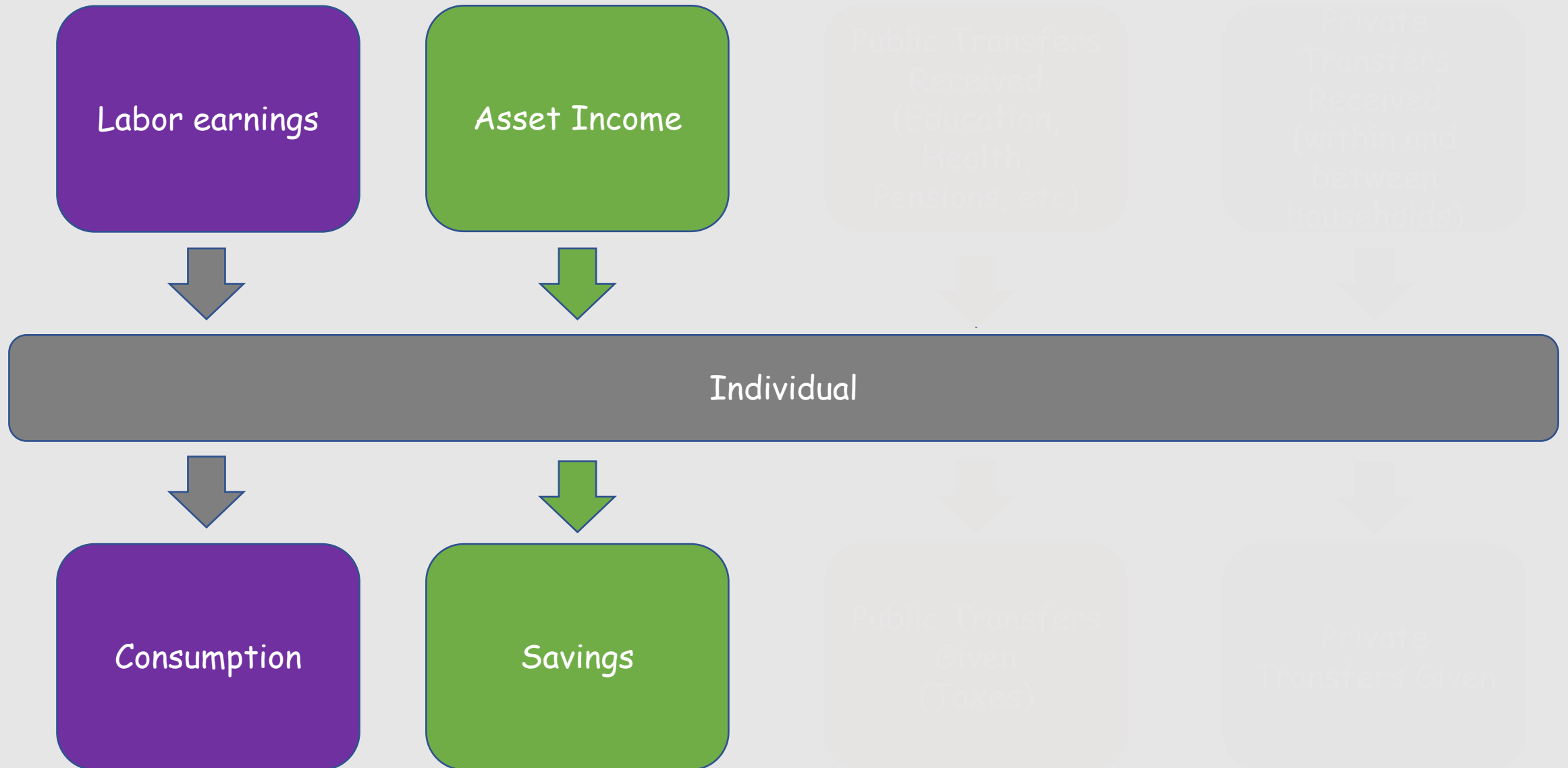
Individual

Outflows

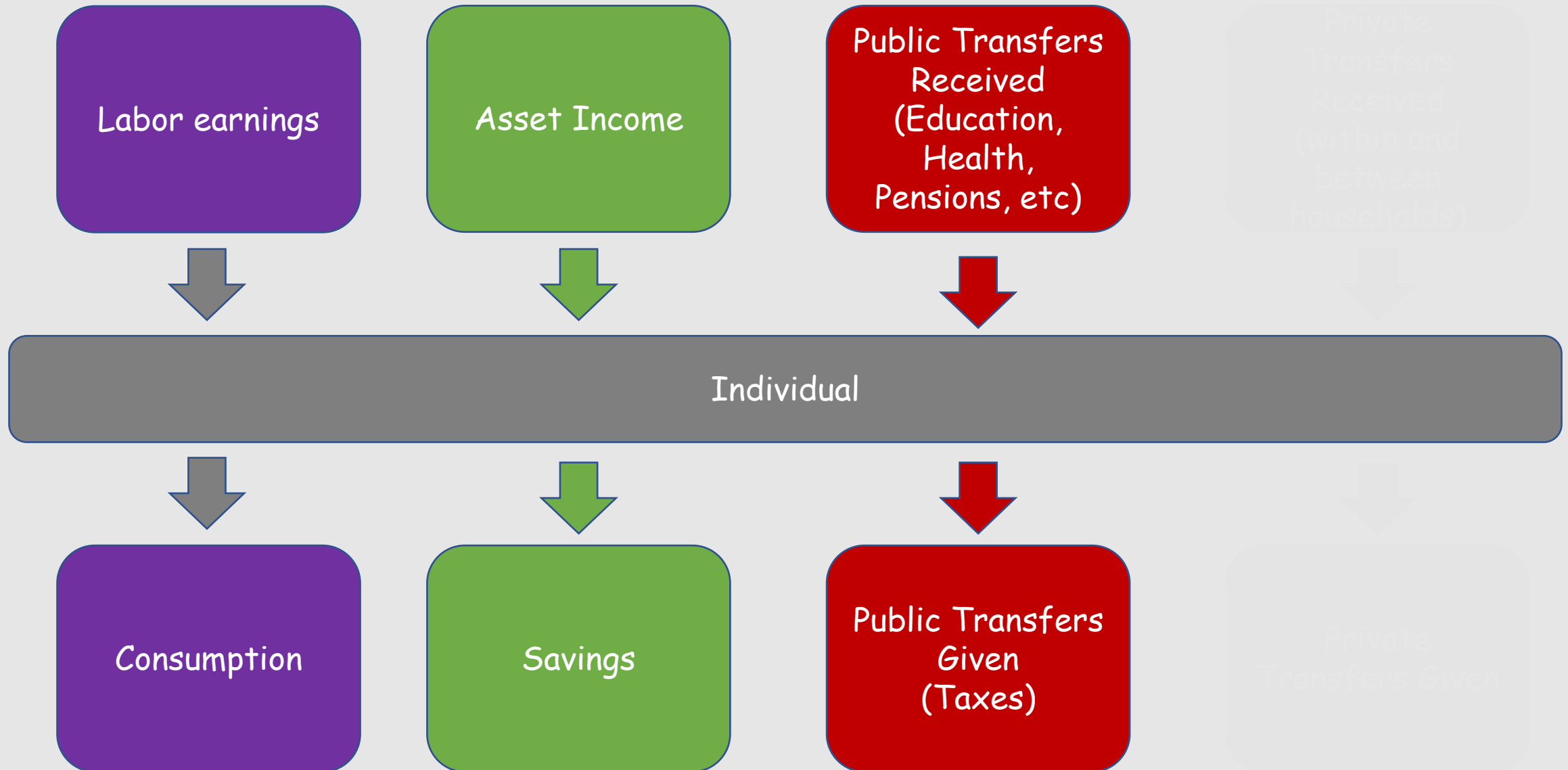
Labor earnings do not meet the consumption needs of most individuals. (E.g., children and older persons)



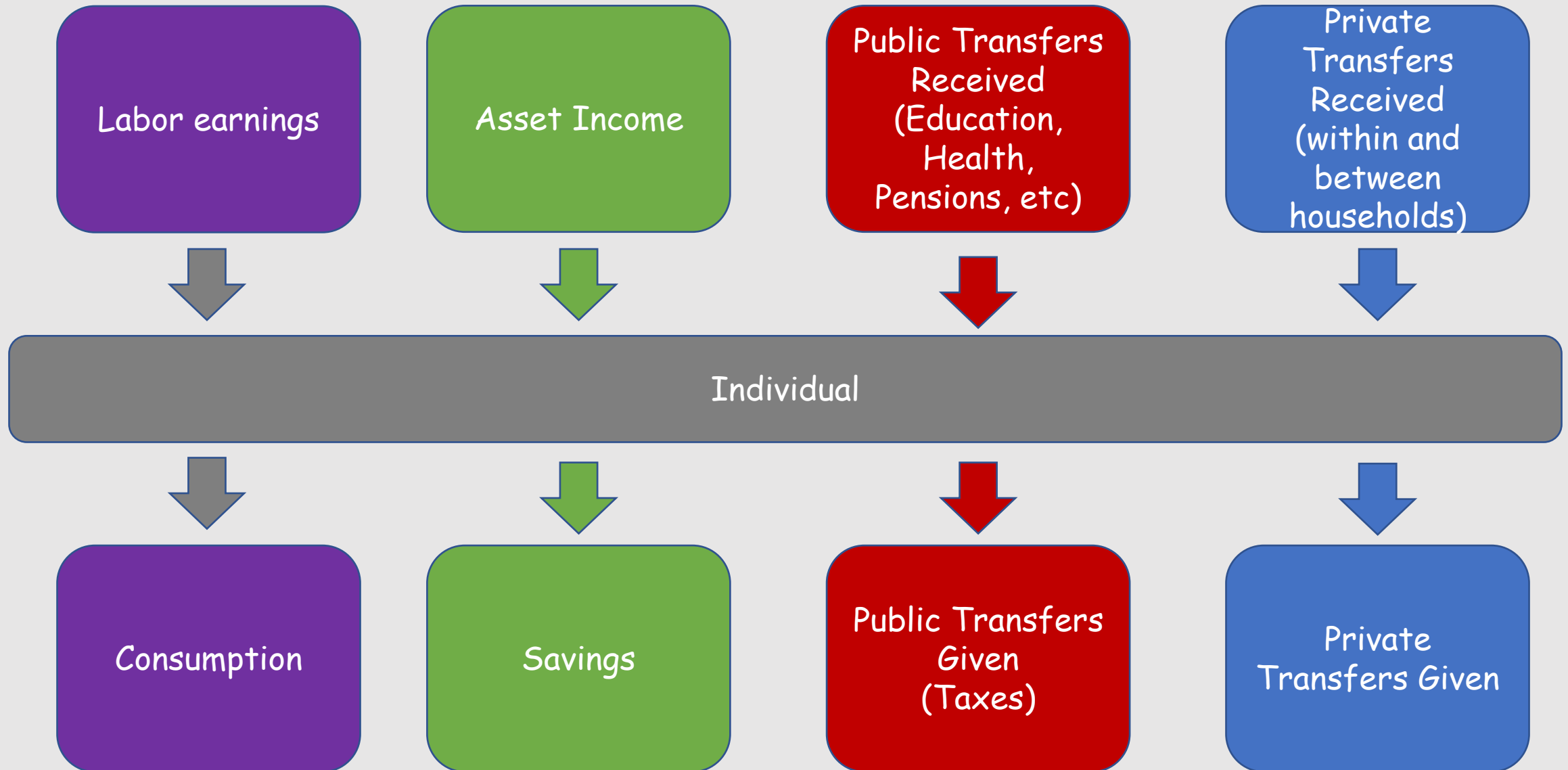
Financial Markets: saving for retirement



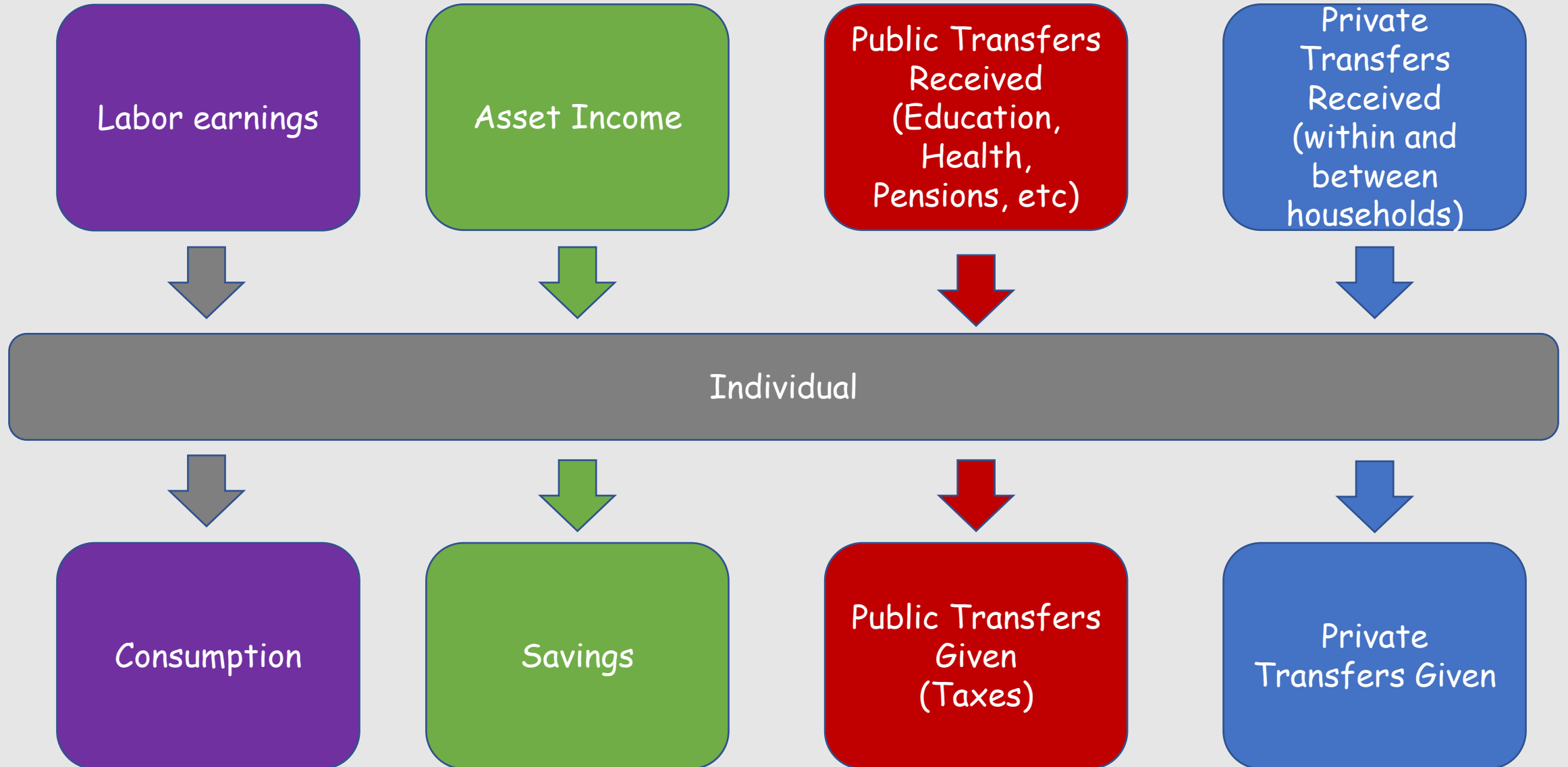
Public transfers: Government-provided benefits and taxes that support them.



Private transfers: Within and between households



NTA Balancing Flow Equation for Each Individual



Deriving **NTA** from SNA

1

$$C + S = Y^l + Y^k + Y^p + \tau$$

Consumption + Savings = Primary Income + Transfers

2

$$C(x) + S(x) = Y^l(x) + Y^k(x) + Y^p(x) + \tau(x)$$

Disaggregate by age

3

$$C(x) - Y^l(x) = [Y^k(x) + Y^p(x) - S] + \tau^g(x) + \tau^f(x)$$

Life cycle deficit = Asset-based reallocations + Public Transfers + **Private Transfers**



Key features of National Transfer Accounts (NTA)

- National Transfer Accounts (NTA) provide a comprehensive accounting framework to measure **the economic life cycle**: how children, youth, adults, and older persons support themselves and each another through financial markets, family transfers, and government transfers.
- These accounts are designed to complement the UN System of National Accounts.

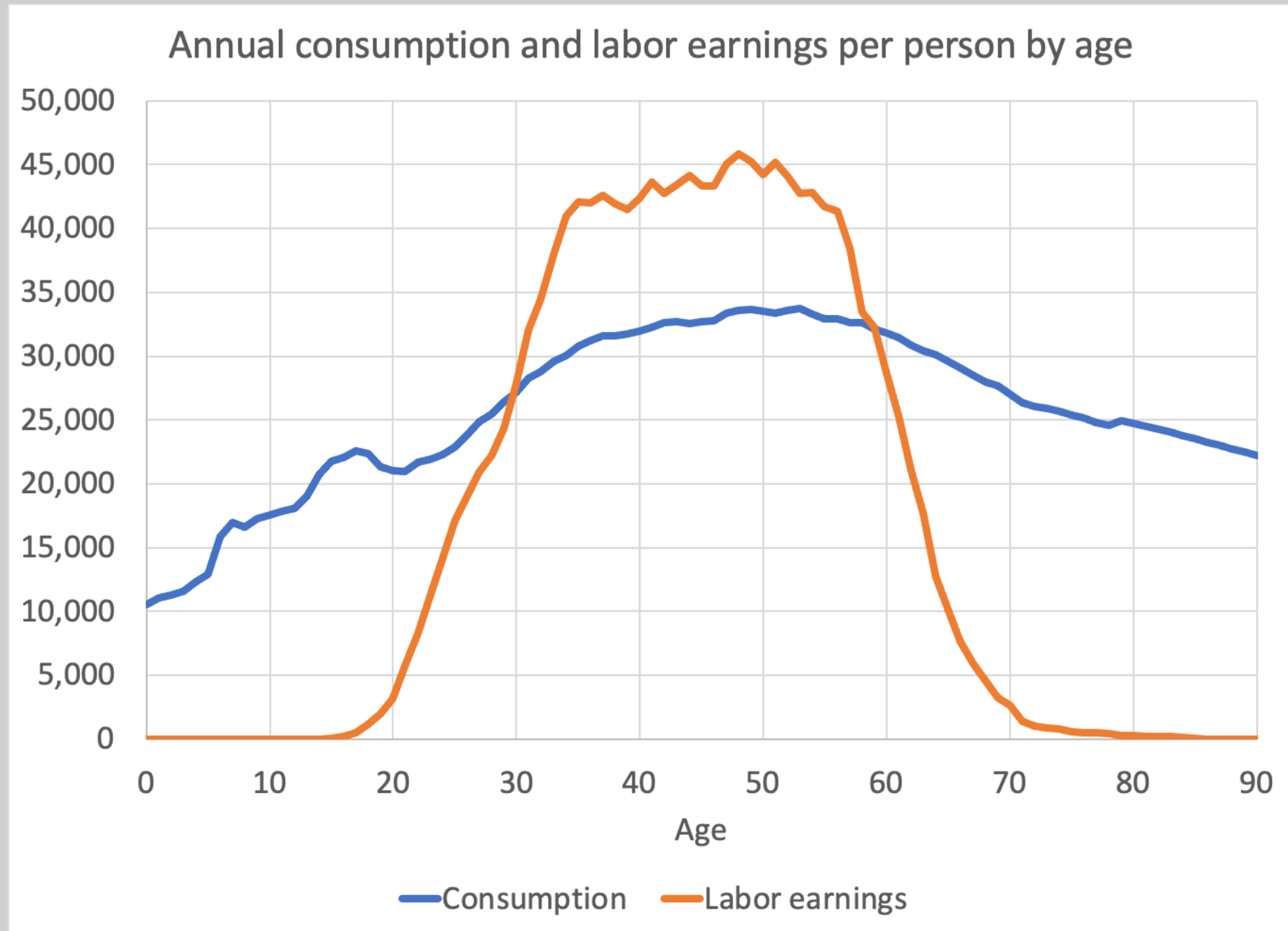


Key features of National Transfer Accounts (NTA)

- By focusing on individuals = **life cycle perspective** and by linking to population projections a **long-run perspective**.
- NTA measures the **market economy** (using household income and expenditure surveys + administrative data).
- NNTA adds the production, consumption, and transfers of **unpaid care work** by age and gender (time-use surveys).
- NTA implemented in 82 countries and NNTA in 20 countries in all world regions.
International comparisons!

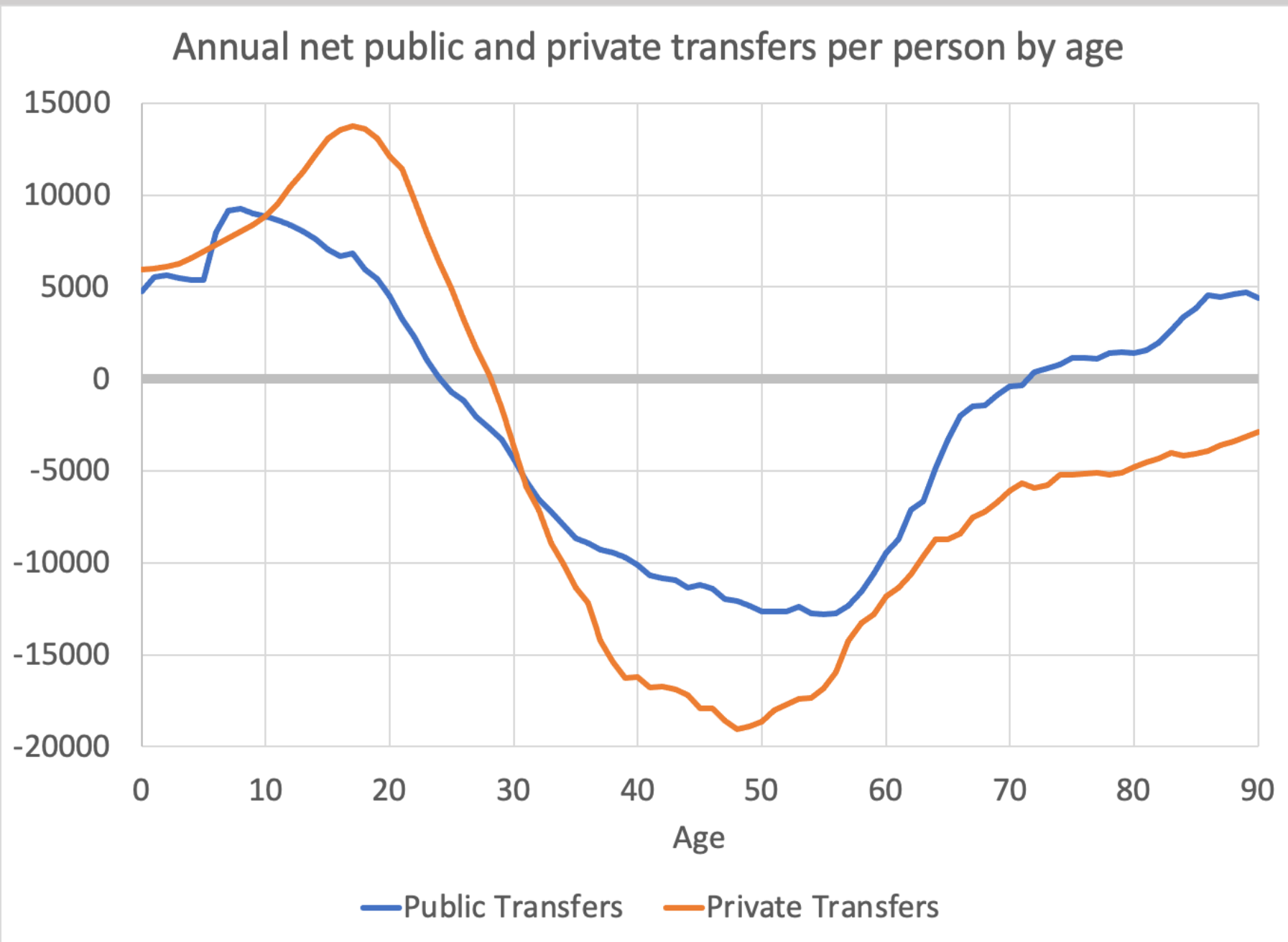
Consumption and labor earning per person by age in South Africa, 2005

Source: Morné Oosthuizen, University of Cape Town, NTA, South Africa, 2005.



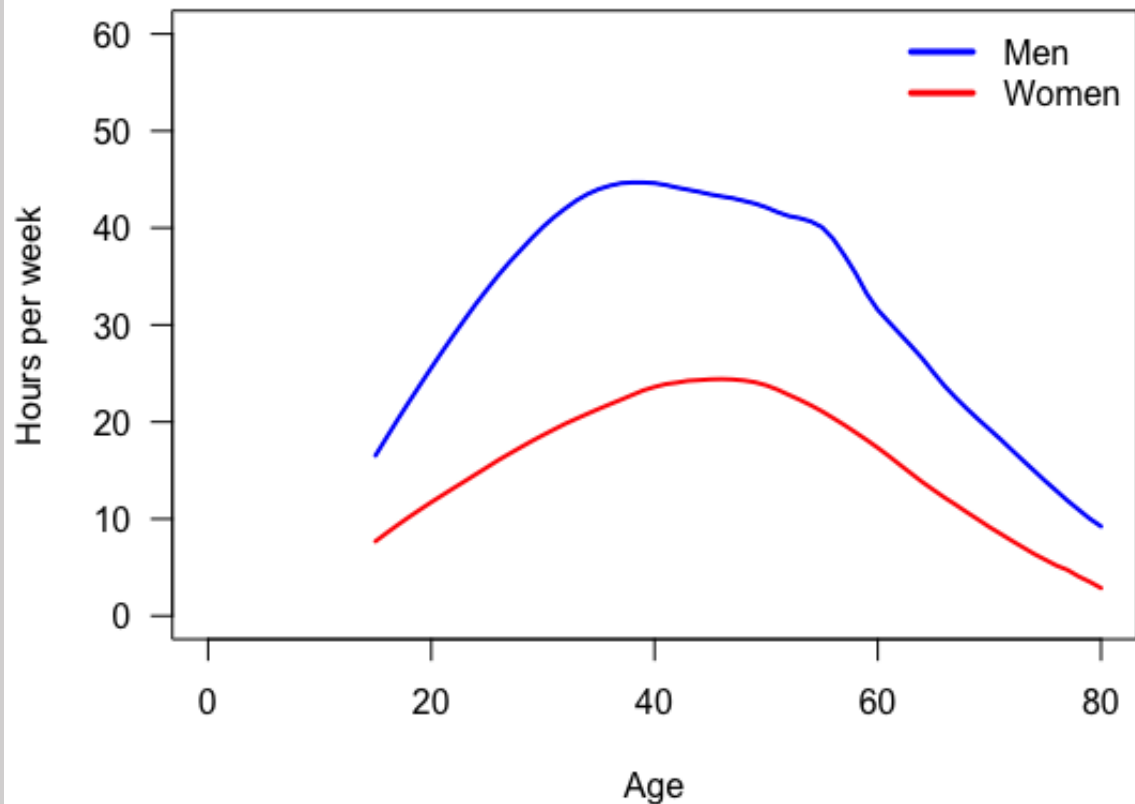
Net public transfers (benefits less taxes) and private transfers in South Africa.

Source: Morné Oosthuizen, University of Cape Town, NTA, South Africa, 2005.

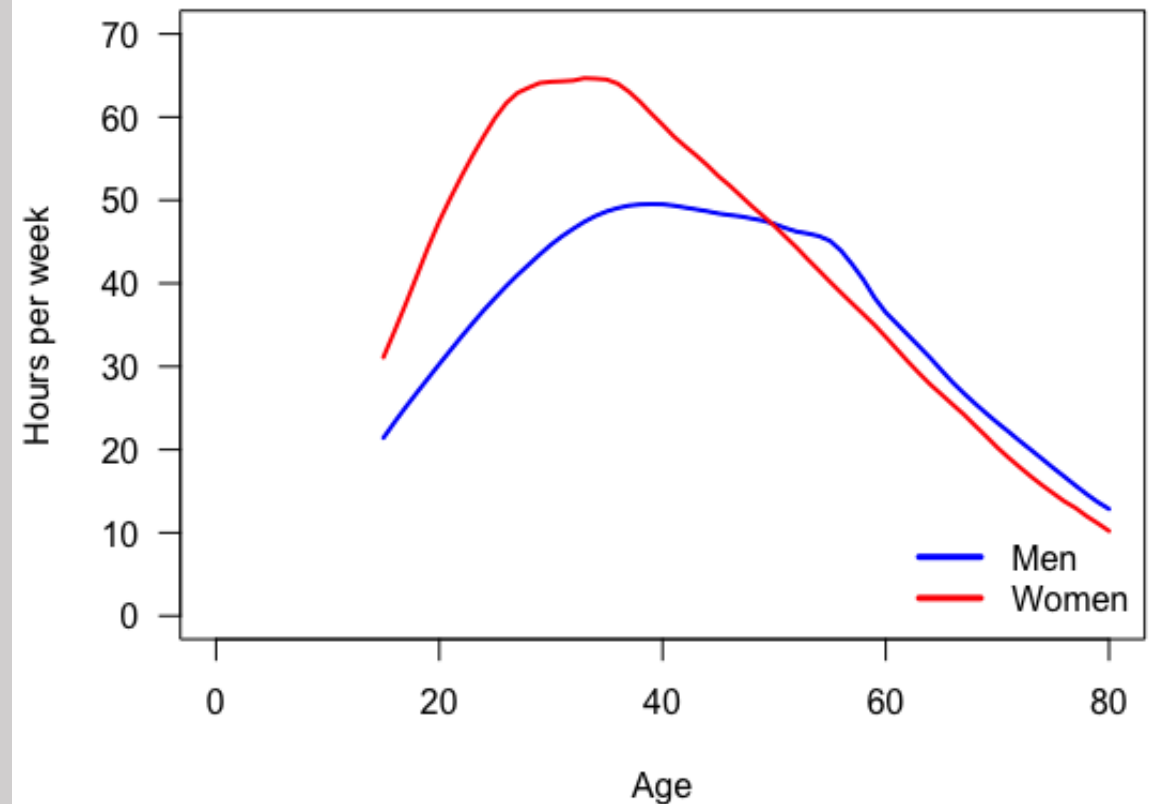


National **Time** Transfer Accounts (NTTA) ... in Senegal, 2016.

Market-based Work



Work (Market-based and Unpaid Care)



NTA Network

200+ Individuals

82 Country Teams



NTA Network

200+ Individuals

82 Country Teams

22 are led or co-led by national government;

2 NSOs have instituted NTA as part of official national statistics: Colombia and Rep. of Korea.

AFRICA

Benin
Botswana
Burkina Faso
Cabo Verde - Cameroon
Central African Republic
Chad – Congo
Cote d'Ivoire
Egypt
Equatorial Guinea
Eswanti - Gabon
Gambia
Ghana
Guinea Conakry
Guinea-Bissau
Kenya
Liberia
Mali
Mauritania
Mozambique
Niger
Nigeria
Sao Tome and Principe
Senegal
South Africa
Togo

ASIA AND PACIFIC

Australia
Azerbaijan
Bangladesh
Cambodia
China
India
Indonesia
Iran
Israel
Japan
Kyrgyzstan
Lao PDR
Malaysia
Maldives
Mongolia
Nepal
Pakistan
Philippines
Singapore
*** Rep. of Korea ***
Sri Lanka
Thailand
Vietnam

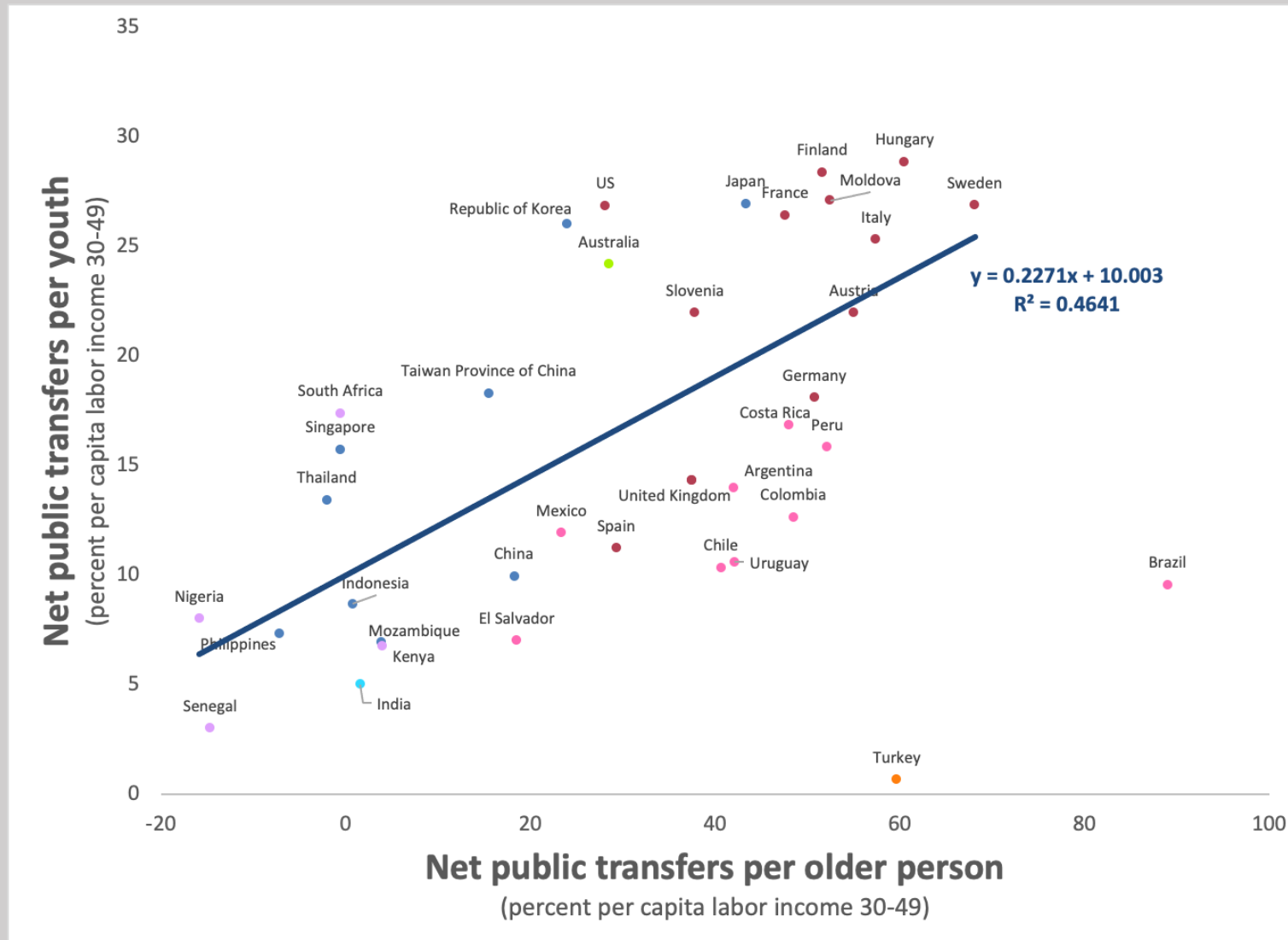
EUROPE and NORTHERN AMERICA

Austria
Canada
Finland
France
Germany
Hungary
Italy
Luxembourg
Moldova
Netherlands
Poland
Russian Federation
Slovenia
Spain
Sweden
Turkey
United Kingdom
United States

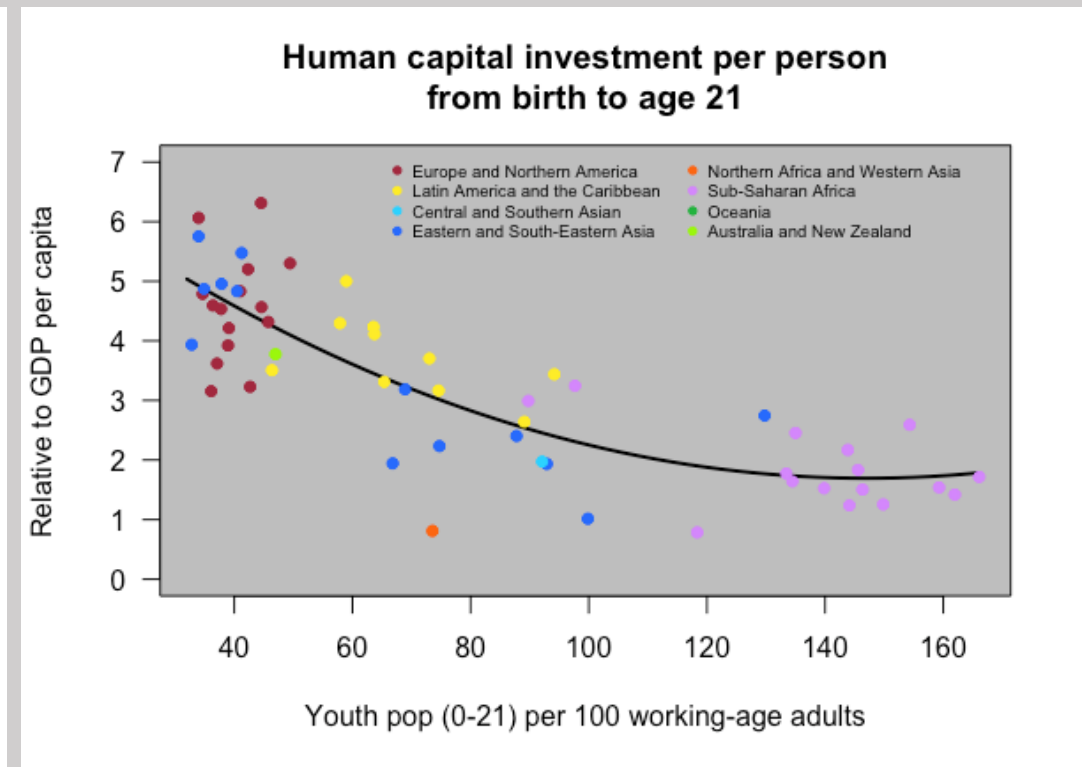
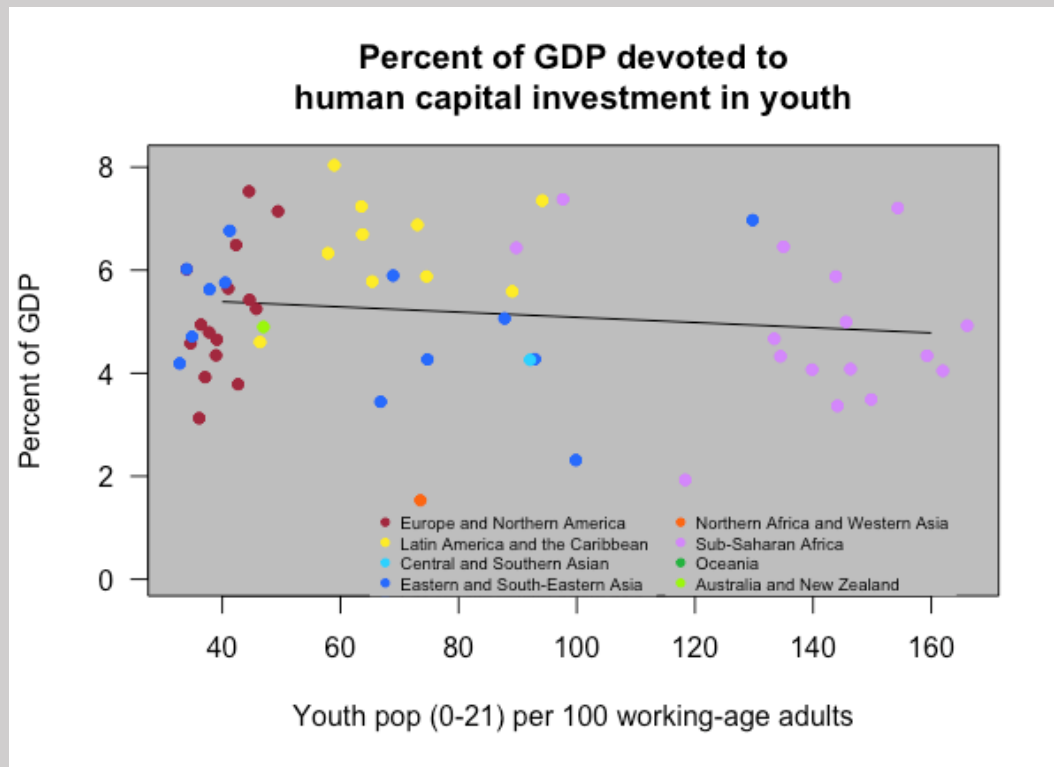
LATIN AMERICA and CARIBBEAN

Argentina
Bolivia
Brazil
Chile
*** Colombia ***
Costa Rica
Ecuador
El Salvador
Guatemala
Jamaica
Mexico
Paraguay
Uruguay

NTA is a unique data source for international comparisons: Government transfers to youth vs. older persons.



NTA is a unique data source for international comparisons: Public + Private human capital investments in youth



Regional efforts in NTA and NTTA



Regional Partnerships



For more information:
Prof. Latif Dramani
Université de Thiès
Président Coordonnateur du
Consortium Régional pour la
Recherche en Economie
Générationnelle (CREG)



For more information:
Edouard Talnan & Gilena Andrade
for West and Central Africa
Angela Baschieri
for Eastern and Southern Africa

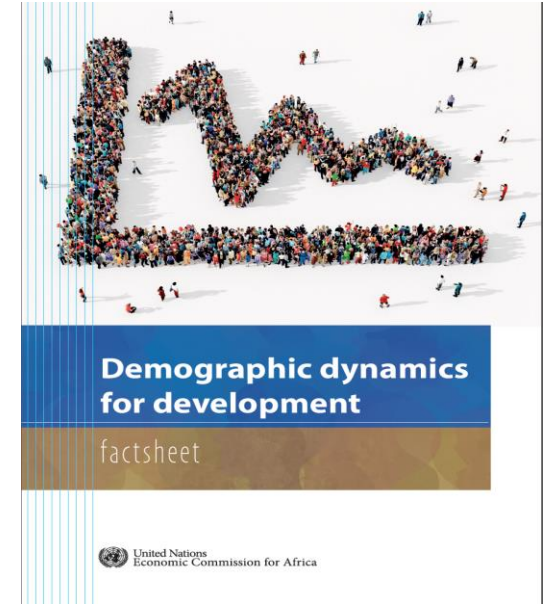
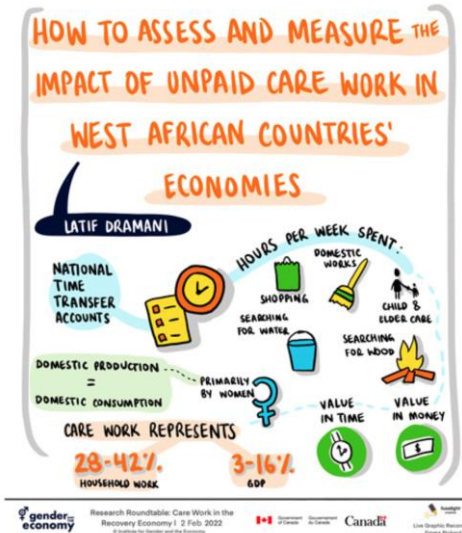
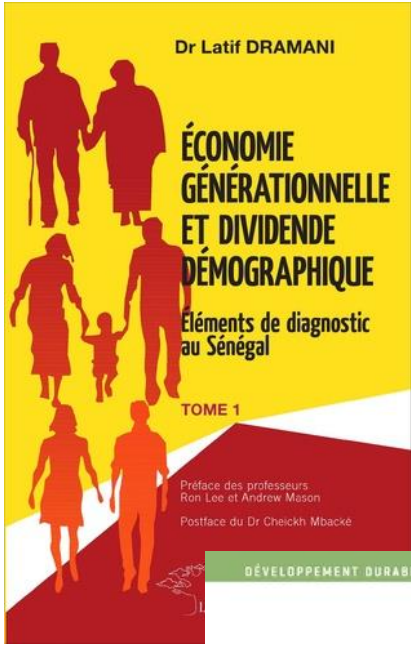


For more information:
Bakary Dosso
Senior Economic Affairs Officer
Chief, Demographic Dynamics
for Development Center

- NTA Regional and National Conferences and Workshops:
 - Second NTA Africa Conference, October 27-29, 2021, in Somone, Senegal
 - Think tanks and Expert Group Meeting on the Generational Economy, Nov 24-25, 2020.
- Demographic Dividend Observatories
- Harnessing Demographic Dividend: African Union Roadmap; National Policy Declarations; Demographic Dividend Sensitive Budgeting (DDSB) for 9 countries in West Africa



Publications



DÉVELOPPEMENT DURABLE ET ÉCONOMIE GÉNÉRATIONNELLE
Sous la direction de Latif DRAMANI

DIVIDENDE DÉMOGRAPHIQUE ET DÉVELOPPEMENT DURABLE
FONDEMENTS THÉORIQUES ET MODÈLES NORMATIFS

TOME 01



Préface d'Andrew Mason et Ronald Lee
Postface de Mabinque Nigom



LIBERIA NATIONAL TRANSFER ACCOUNTS PROFILE

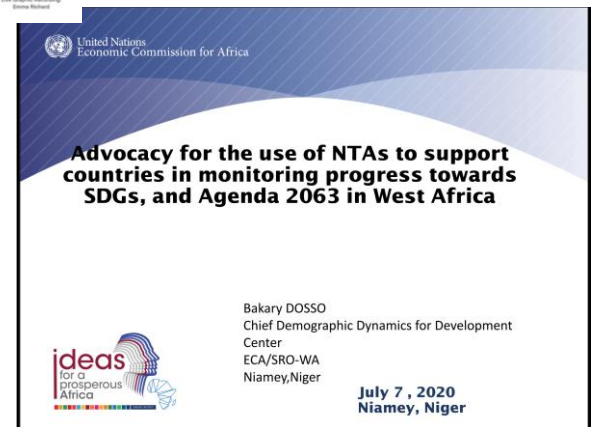
Harnessing the Generational Economy for a Dynamic Economy and a Resilient Population



United Nations Economic Commission for Africa



CREG



Bakary DOSSO
Chief Demographic Dynamics for Development
Center
ECA/SRO-WA
Niamey, Niger

July 7, 2020
Niamey, Niger

United Nations Capacity Development Support for National Transfer Accounts

UN Secretariat:

DESA
ECA
ESCAP
ECLAC
ESCWA

UNFPA

UNFPA Support for National Transfer Accounts

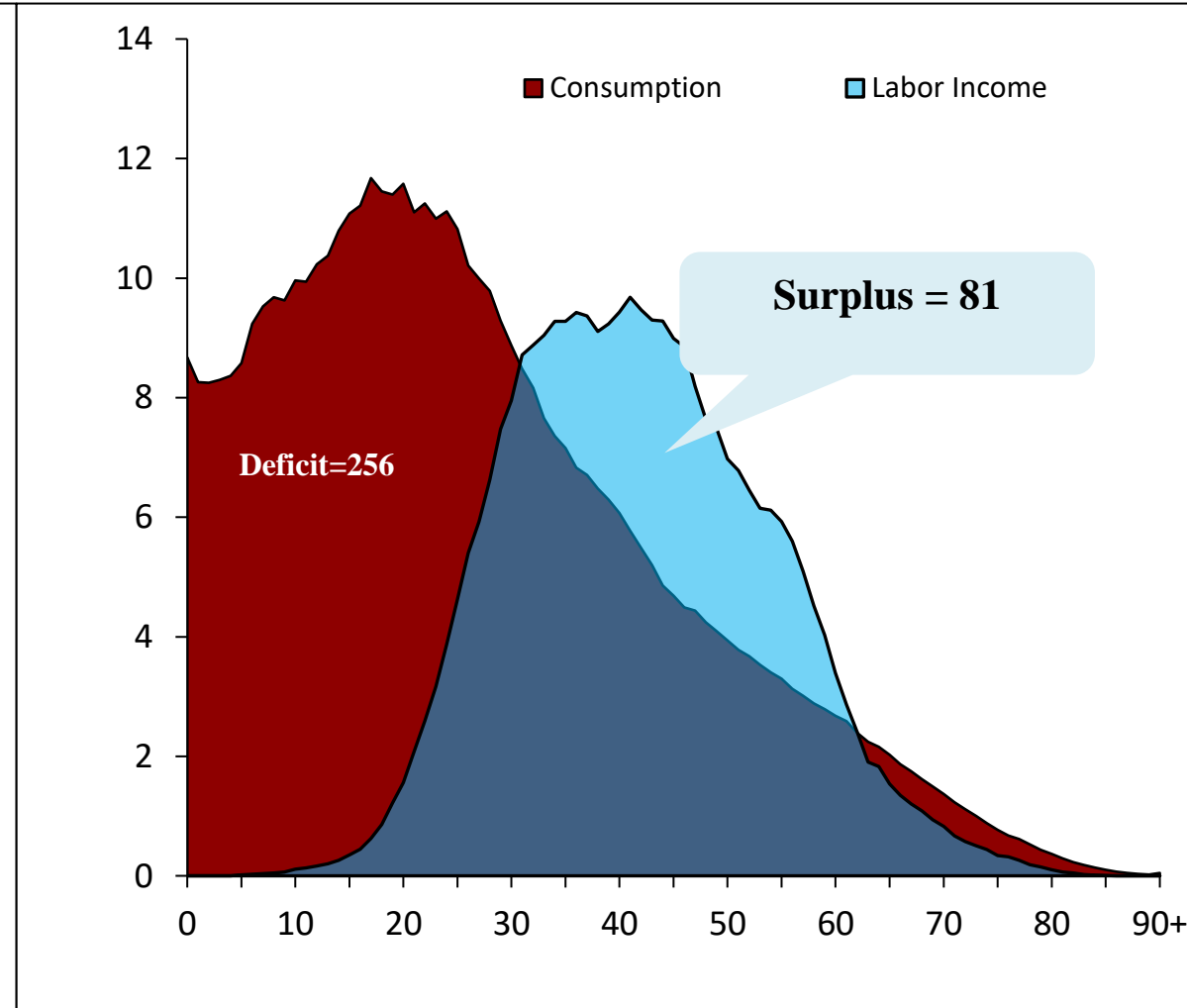
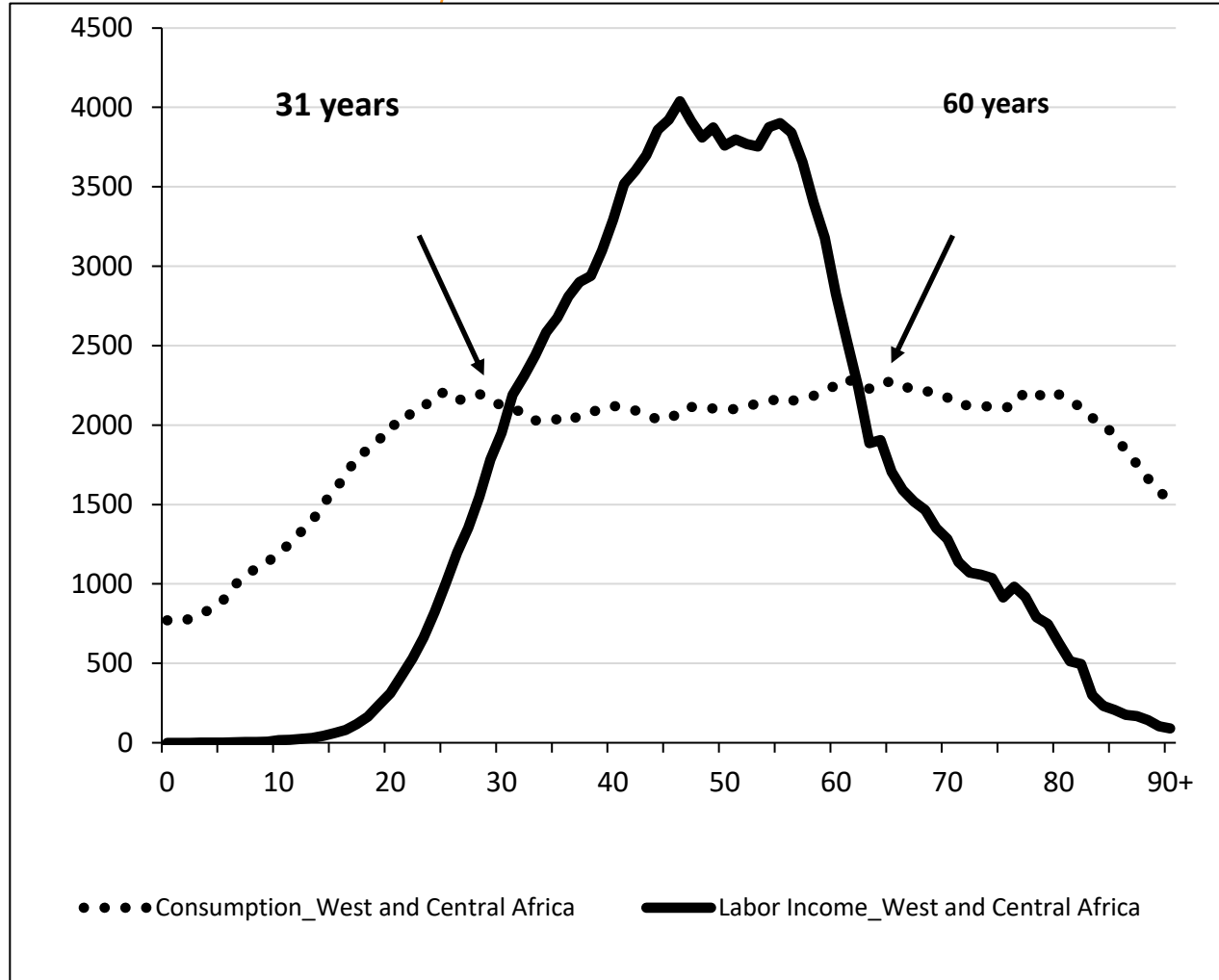
- Support for more than a decade
- Countries in Africa, Americas, Asia and Europe
- Western and Central Africa Regional Office
 - 22 national DD roadmaps, 433 national experts trained, 21 national profiles, Partnership with GIZ in Togo, Policy briefs, time budget allocation surveys.



Operationalization of Demographic Dividend

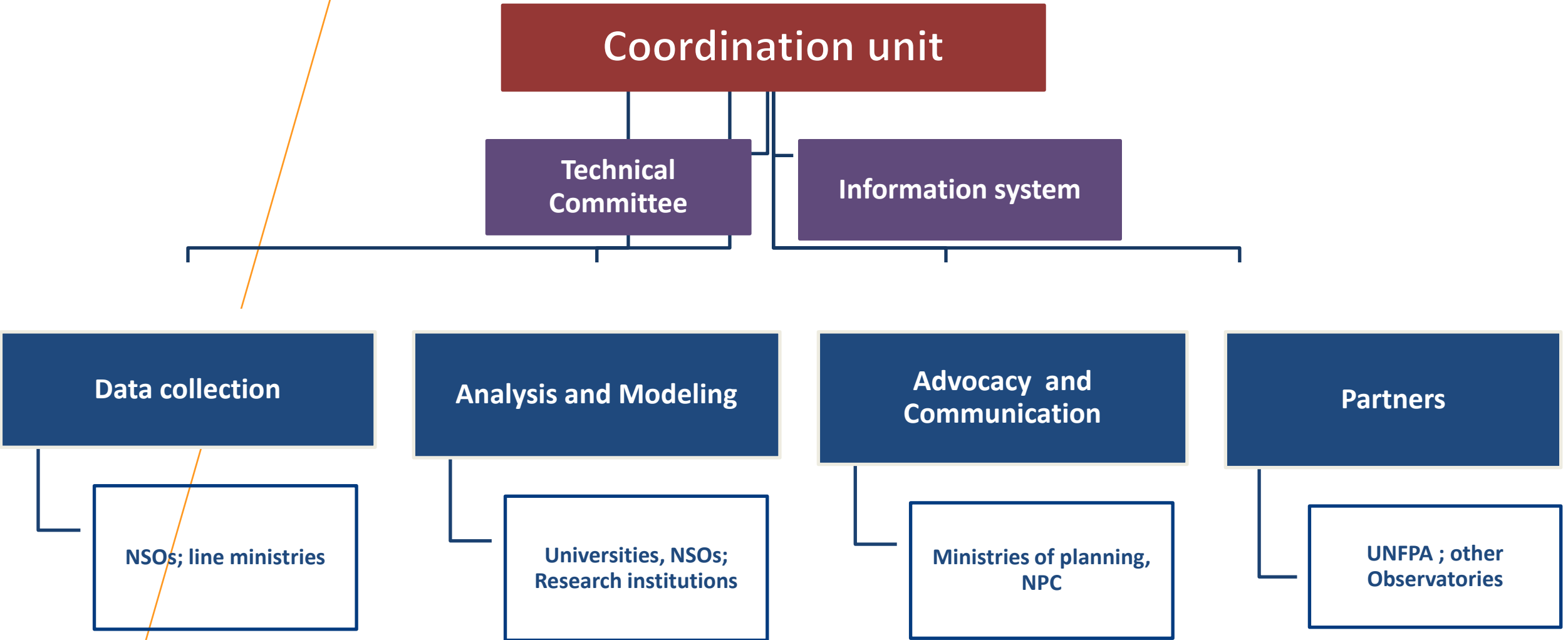


National Transfer Account (NTA)



22 national DD roadmaps, 433 national experts trained, 21 National profiles, Partnership with GIZ in Togo (150,000 Euros), Policy briefs, time budget allocation surveys

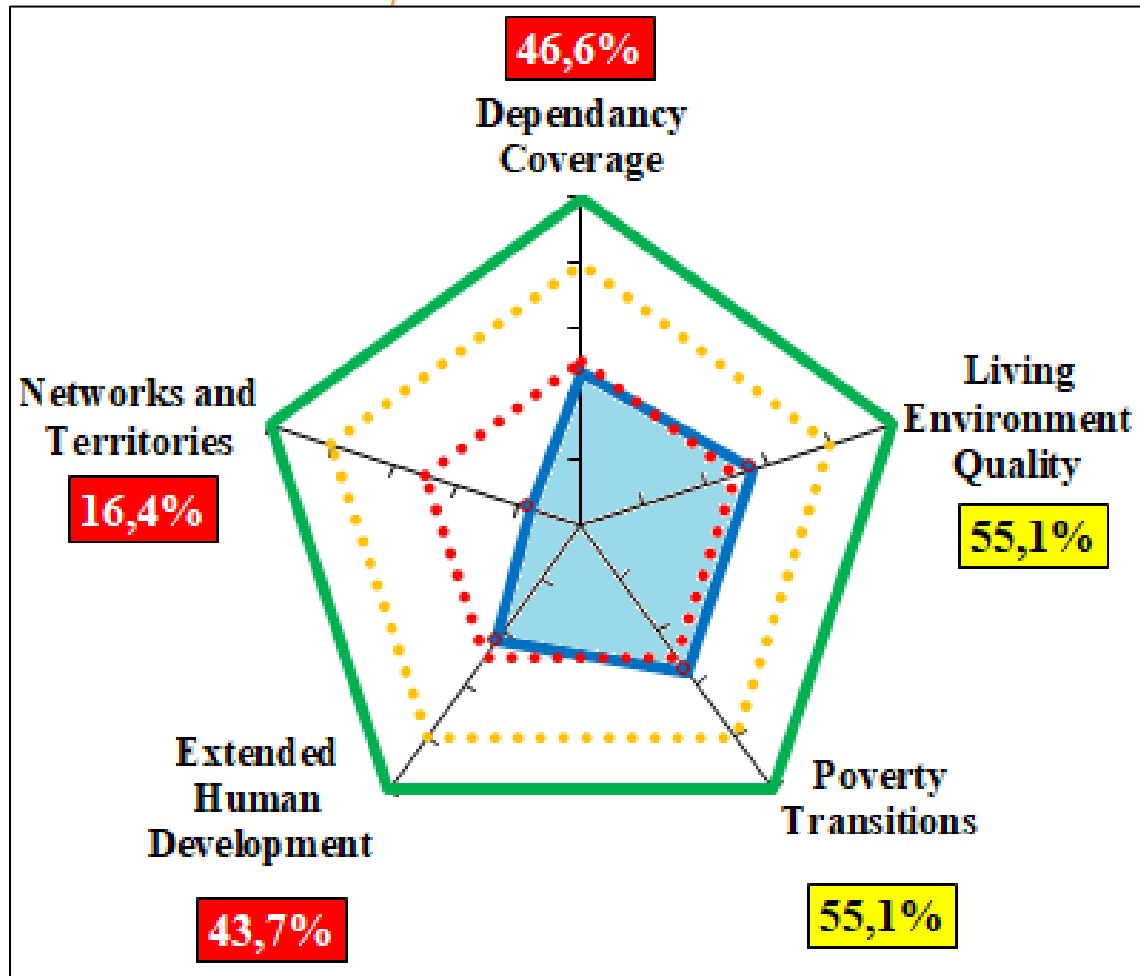
Demographic Dividend Observatory



9 national DD observatories (Benin, BF, Chad, Côte d'Ivoire, Guinea, Mali, Mauritania, Niger, and Senegal)



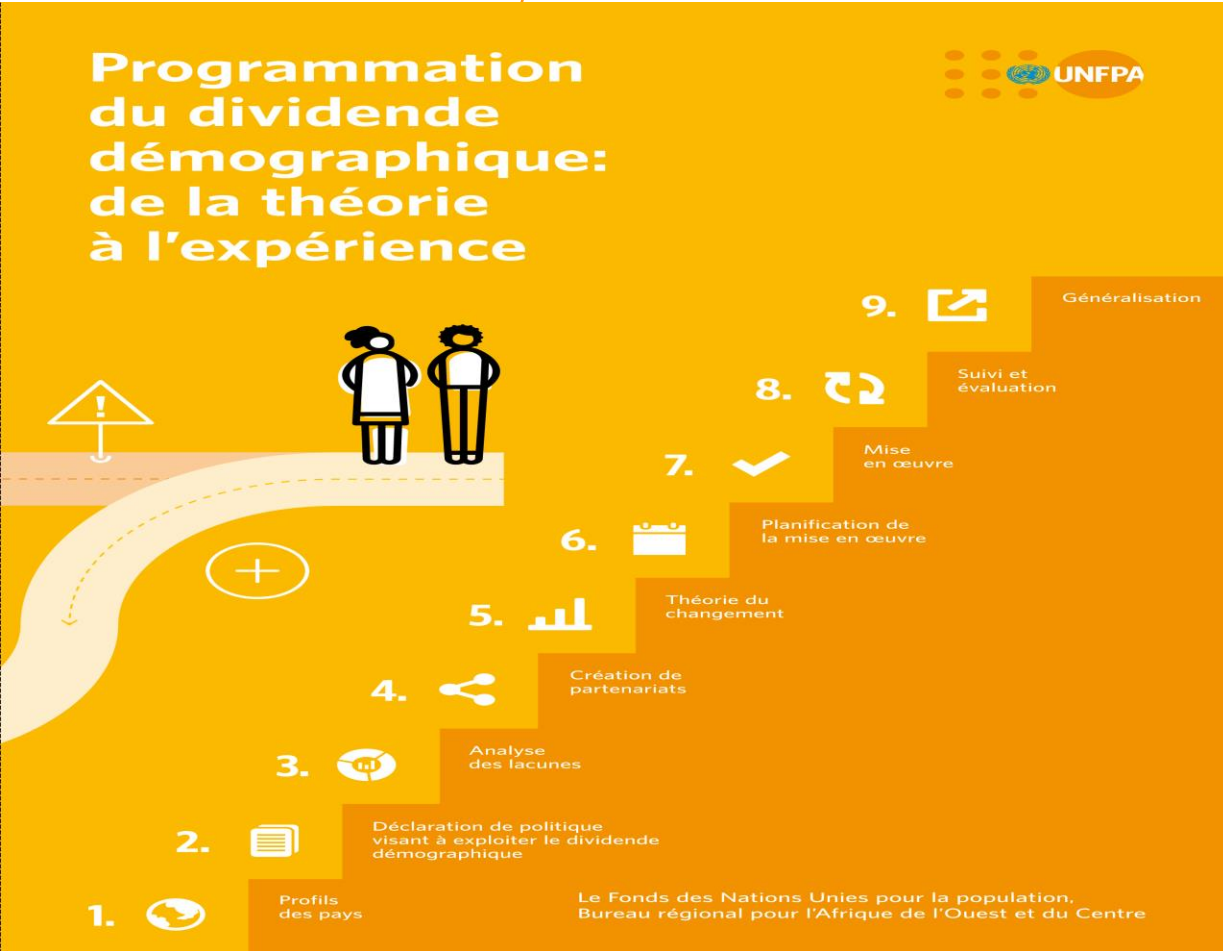
Demographic Dividend monitoring index



Legend :



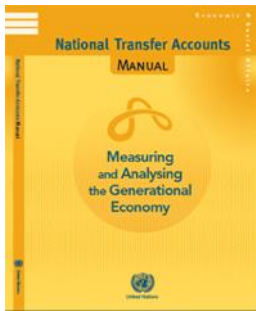
National Capacity Building on DD Programming



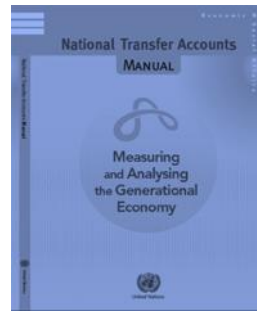
13 national Development Plans integrating DD

DESA Manuals

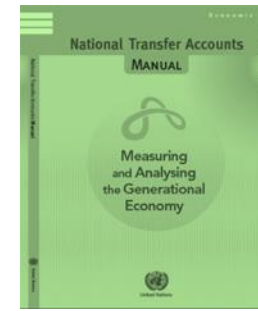
Measuring the Generational and Gendered Economy



(1) BY AGE:
National Transfer
Accounts (2013)



(2) BY GENDER:
National Time Transfer
Accounts (2022)



(3) BY SOCIO-ECONOMIC
GROUP:
National Inclusion Accounts
(2024)

Spanish



Russian



DESA Capacity building workshops on estimation and use of NTA

A video thumbnail featuring a woman in a pink hijab and glasses speaking. The background is a cityscape at night. The text on the slide includes:


Estimation and Applications of National Transfers Accounts for Malaysia: The Successful Transition to a Vibrant, Aged Society
7-11 March



INSTITUT PENYELIDIKAN PENUAAN MALAYSIA (MyAgeing™)
MALAYSIAN RESEARCH INSTITUTE ON AGEING

15th Tranche Development Account (2023-2026): National Inclusion Accounts

(NTAs by educational attainment)

- UN DESA-ECLAC-ESCAP pilot project 8 countries:
 - Colombia, Costa Rica, Jamaica, Uruguay.
 - Lao PDR, Malaysia, Viet Nam.

| Timeline | |
|----------|---|
| 2023 | Method: Manual on National Inclusion Accounts Global Meeting |
| 2024 | Data: Estimate National Inclusion Accounts National Workshops |
| 2025 | Models and policies: Applications of National Inclusion Accts. Regional Workshops |
| 2026 | Outreach: Presentation at Annual NTA Global Conference |

| | |
|---|---|
| <p>Inclusive and sustainable economic growth in a society for all ages in the post-COVID-19 era in Asia and Latin America and the Caribbean The project will be implemented by DESA jointly with ECLAC and ESCAP and in coordination with UN Resident Coordinator Offices and other UN entities. (\$880,000)</p> | <p>Relationship to the SDGs: targets 1.3, 3.8, 4.1, 5.1, 10.1, 10.2, 17.18, and 17.19</p> |
|---|---|

Objective

To enhance the capacity of governments in the Asia-Pacific and Latin America and Caribbean regions to develop evidence-based, intergenerational policies for inclusive and sustainable economic growth in the context of population ageing.

Project plan (for 2023-2026) The Secretary-General's report on *Our Common Agenda* highlighted the importance of strengthening capacities to understand and assess the future, building long-term intergenerational thinking into important policies and decision-making. One of the defining characteristics of this future is population ageing – the rising proportion of older persons in the population. Population ageing has also been identified as one of the five key megatrends shaping this future by the UN Economist Network. This echoes longstanding calls for integrating population into development planning expressed by the General Assembly, the Commission on Population and Development, the Asian and Pacific Population Conference, the Regional Conference on Population and Development and the Regional Intergovernmental Conference on Ageing and the Rights of Older Persons in Latin America.

This project directly responds to these calls by transforming National Accounts into a policy instrument that addresses the twin goals of inclusion and sustainability in the context of population ageing. National Inclusion Accounts disaggregate national economic statistics by age and socioeconomic status and help identify and observe how economic resources are shared between population groups. This type of accounting is needed for long-term forecasts of the costs and funding sources for social protection, education, and health care programmes to ensure their fiscal sustainability and evaluate their success in achieving inclusive sustainable development.

This project will support eight developing countries in Latin America and the Caribbean and Asia and the Pacific to strengthen capacity to produce National Inclusion Accounts, analyze the impacts of population ageing on inclusive and sustainable development, and formulate public policies and plans to take account of future demographic change while promoting inclusive and sustainable economic growth.

Expected progress towards the attainment of the objective and performance measures

This work is expected to contribute to strengthening the capacities of the beneficiary countries to design and adopt policies that foster sustainable and inclusive development while adapting to their new demographic realities, which would be demonstrated by the estimation of National Accounts disaggregated by age and socioeconomic status and the use of these disaggregated data in long-run evaluations of investments in social protection, education, and/or health care. At the end of the project, it is expected that the target countries will be better prepared to adapt to population ageing with social protection, education, and health care systems that are fiscally sustainable and inclusive.



United Nations

Department of
Economic and
Social Affairs

Population

Questions and suggestions:

Tim Miller <tim.miller@un.org>

For more info:

4th Beyond GDP Sprint: Disaggregating National Accounts by age, gender, and socioeconomic group

<https://unstats.un.org/unsd/statcom/groups/NetEconStat/GDPSprintFourthMeeting/>

Age

National Transfer Accounts: Disaggregating National Accounts by age. Nicole Mun Sim Lai and Tim Miller. UN.

Colombia's National Transfer Accounts: Insights and results. Juan Daniel Oviedo. DANE, Colombia.

Gender

Disaggregating National Accounts by age and gender. Gretchen Donehower, UC Berkeley.

Socioeconomic Group

Disaggregating National Transfers Accounts by education and income in Chile and Brazil. Cassio Turra, CEDEPLAR, Brazil.

Capturing wellbeing by disaggregating NTA and NTTA. Alexia Fürnkranz-Prskawetz. Vienna Institute of Demography.

Synthesis

How the disaggregated NTAs combine for a richer picture of the economy. Ronald Lee, UC Berkeley.