United Nations | Department of Economic and Social Affairs

UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

Asia-Pacific Workshop on Measuring Population Ageing and Assessing its Economic and Fiscal Consequences

24-27 June 2019
United Nations Conference Centre, Bangkok

United Nations | Department of Economic and Social Affairs

Session 1:

Welcome and Course Introduction

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Population Affairs Officer

Welcome and thanks

NTAs: Economic Statistics for the 21st Century

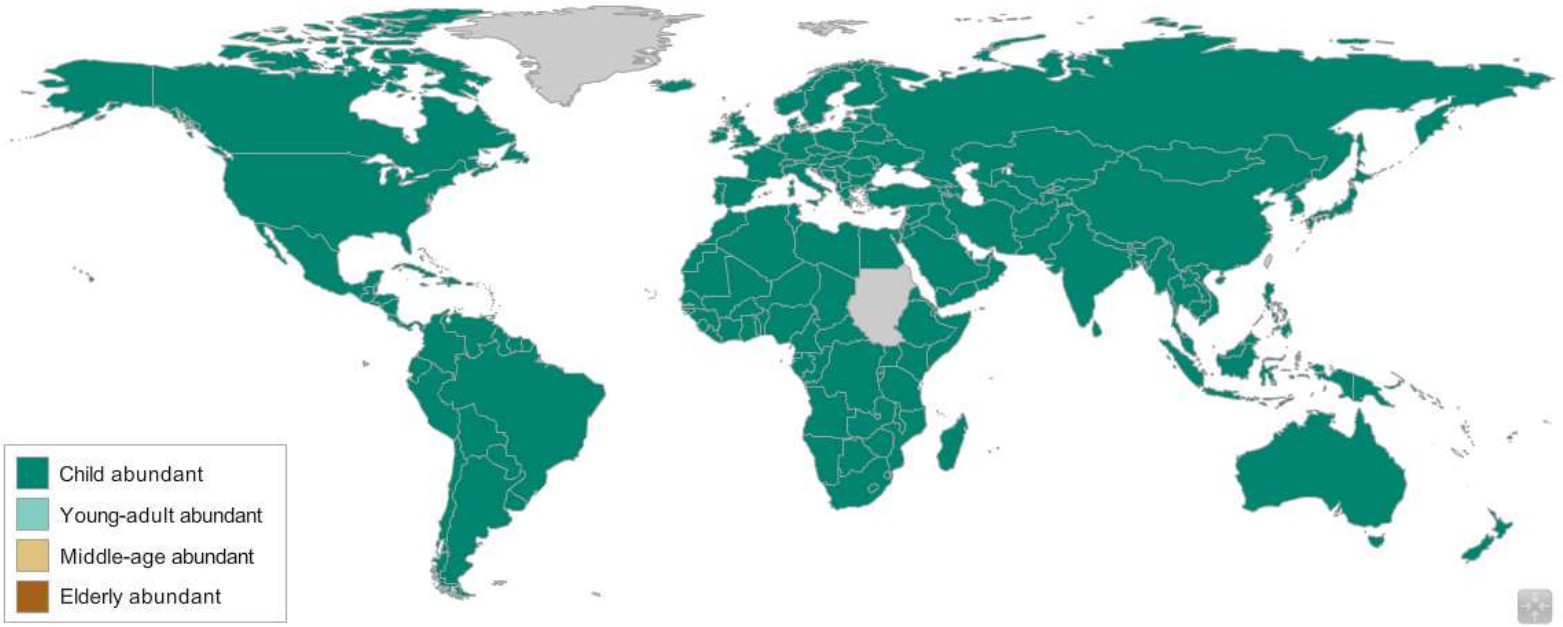
1. **An unprecedented change**
2. … with important economic implications.
3. Problem: Limited and incoherent data.
4. Solution: National Transfer Accounts.

Unprecedented Change

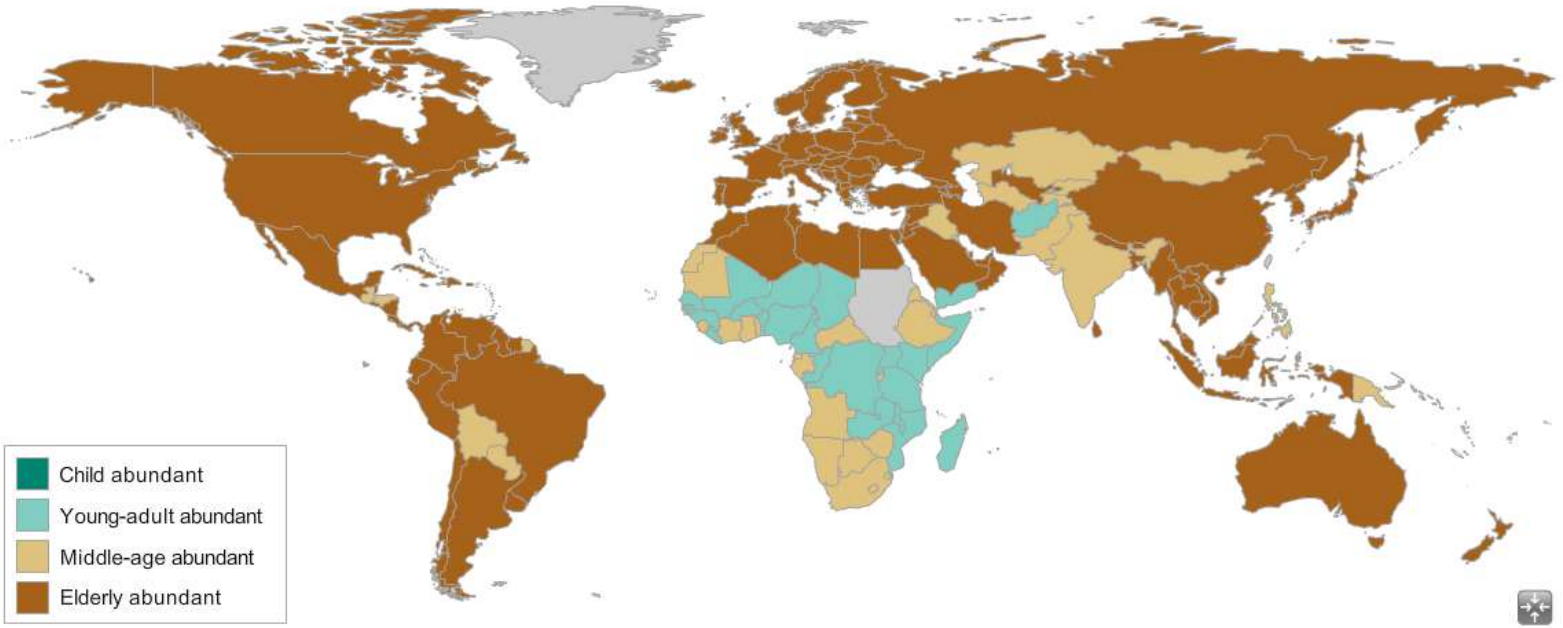
- Population age structure is changing throughout the world.

- The economic, social, and cultural impact of this transformation will define the 21st century.

The World of the 20th Century:
All societies were “child abundant” in 1950.



The World of the 21st Century:
Global dominance of "Elderly Abundant" societies by 2070.



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Important implications for economies.

- Virtually all economic activities vary significantly by age: consumption, labor participation, savings ,use of health care, education, etc.

- Therefore, changes in population age structure will have important consequences for:
  - Economic growth;
  - Sustainability of financial support systems of the family, the state, and financial market;
  - Inequality within and between generations.

The demographic dividend around the world

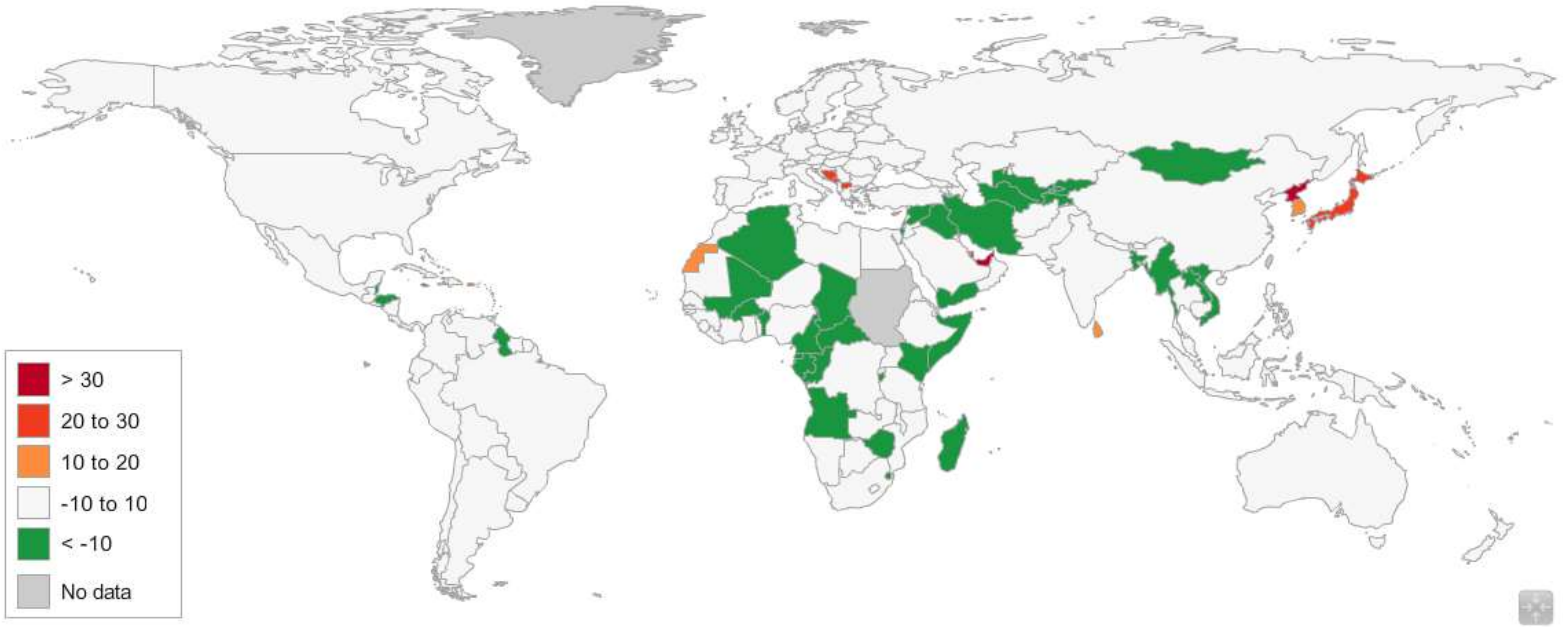
- All populations pass through a period in which the population is concentrated among working-age adults.

- This period is particularly favorable to economic growth as the potential workforce grows more rapidly than the population dependent on it. The demographic dividend lasts for a few decades. At its peak, it can contribute in excess of 1% to the annual growth in GDP per capita.

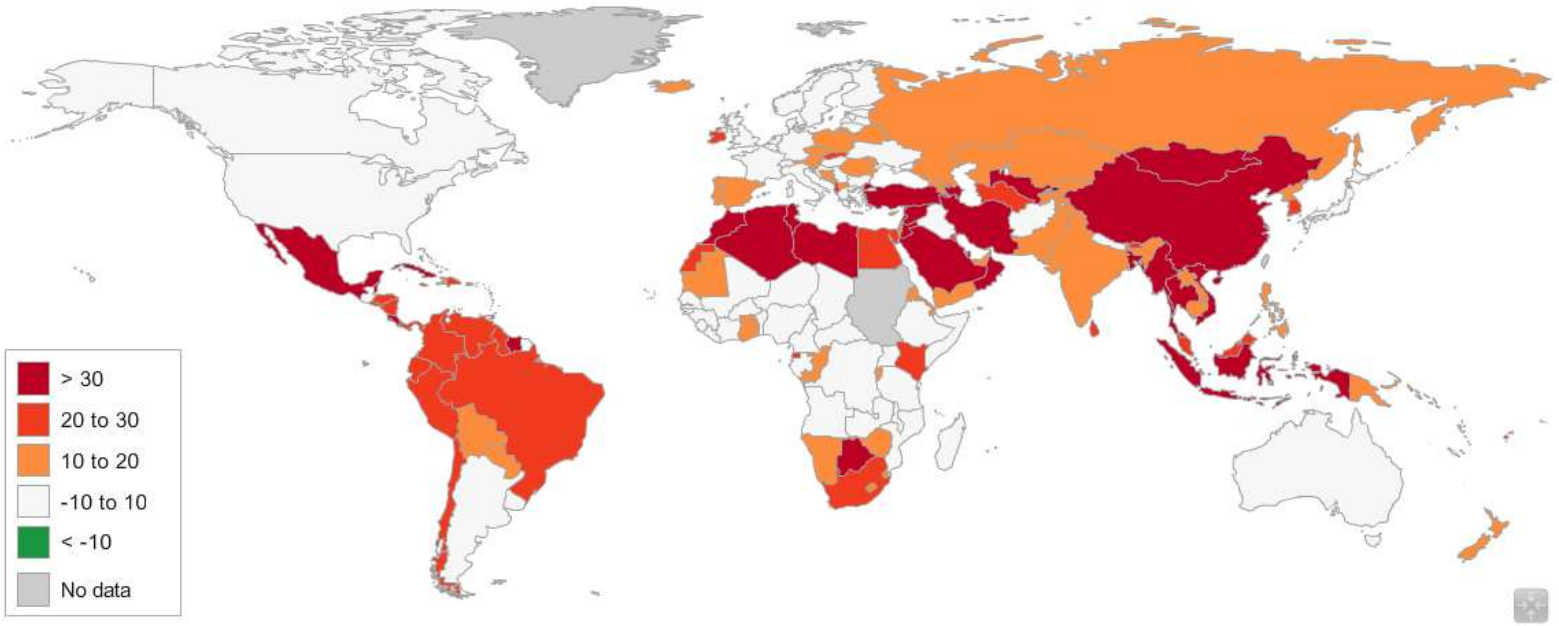
- This is followed by period in which demographic change is unfavorable as the potential workforce grows more slowly than the population dependent on it. This phase, too, is temporary.

- Because the developing world is passing through a favorable demographic stage and the developed world an unfavorable one, demography favors a convergence in GDP/capita between the developed and developing world.

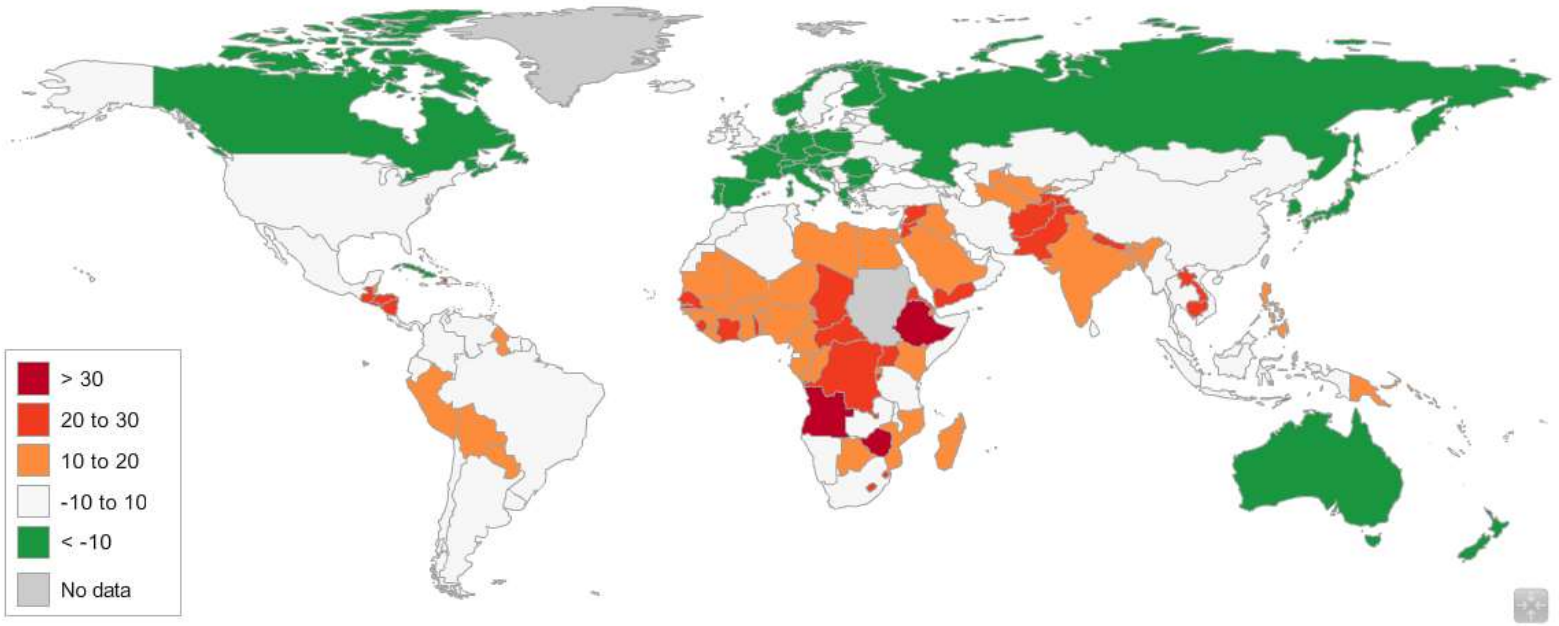
1950-1980: Percent change in GDP/capita due to age structure change.



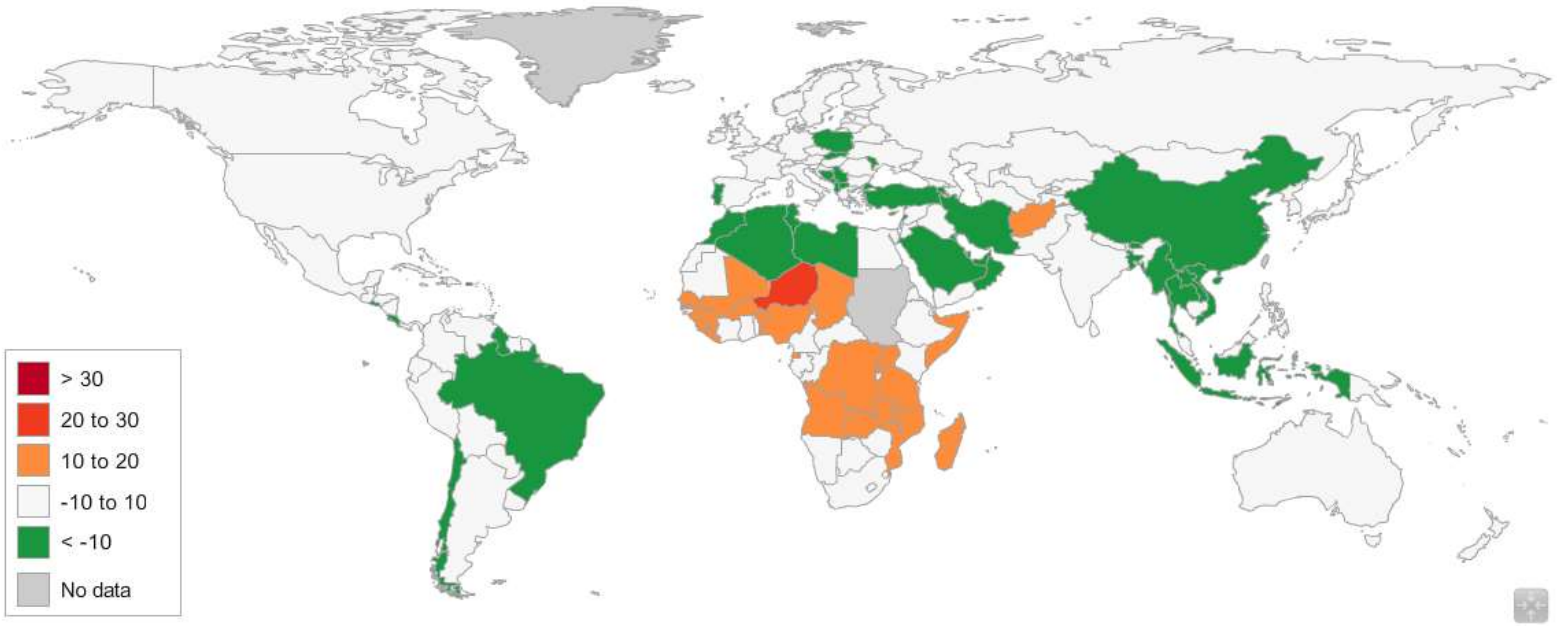
1980-2010: Percent change in GDP/capita due to age structure change.



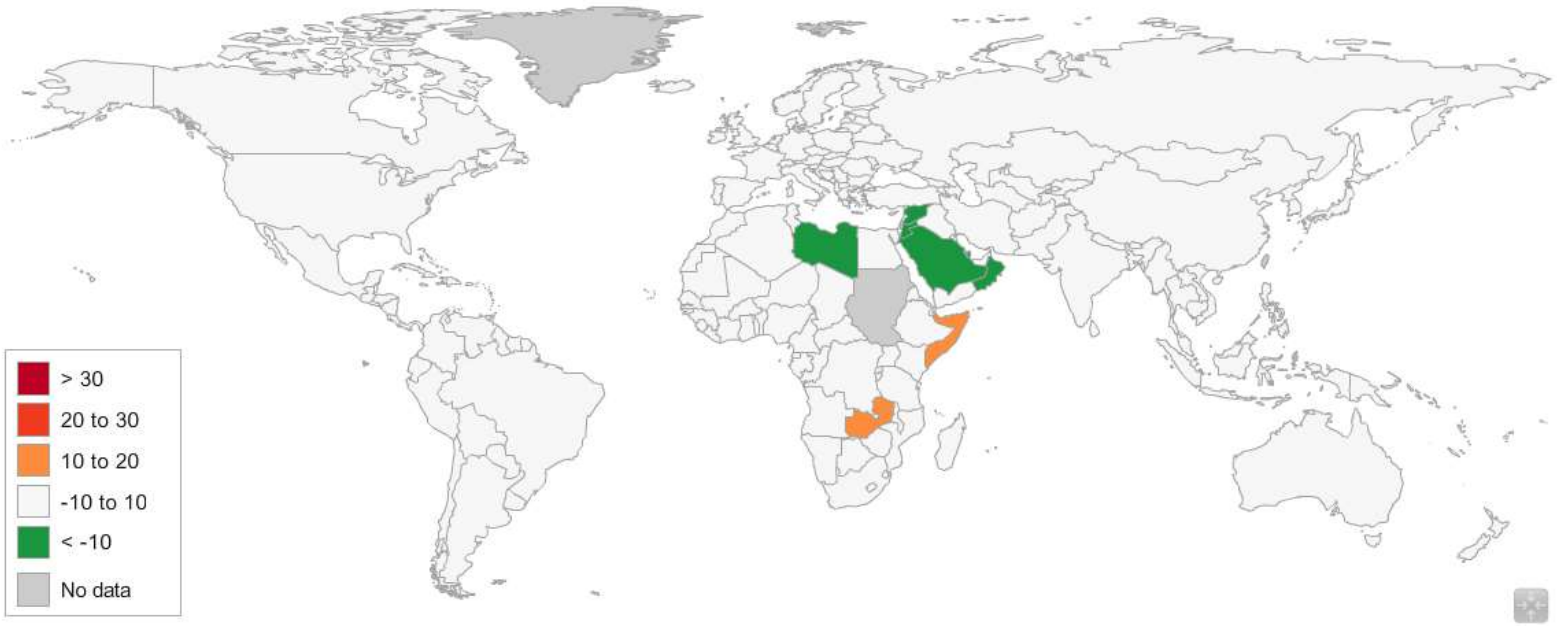
2010-2040: Percent change in GDP/capita due to age structure change.



2040-2070: Percent change in GDP/capita due to age structure change.



2070-2100: Percent change in GDP/capita due to age structure change.



NTAs: Economic Statistics for the 21st Century

1. An unprecedented change

2. … with important economic implications.

3. **Problem: Limited and incoherent data.**

4. Solution: National Transfer Accounts.

Limited and incoherent economic data

- We lack basic economic information about the impact of changing age structure …

- … **because our economic statistics and data collection systems were designed in the last century to solve other issues.**

NTAs: Economic Statistics for the 21st Century

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Economic statistics for the 21st century

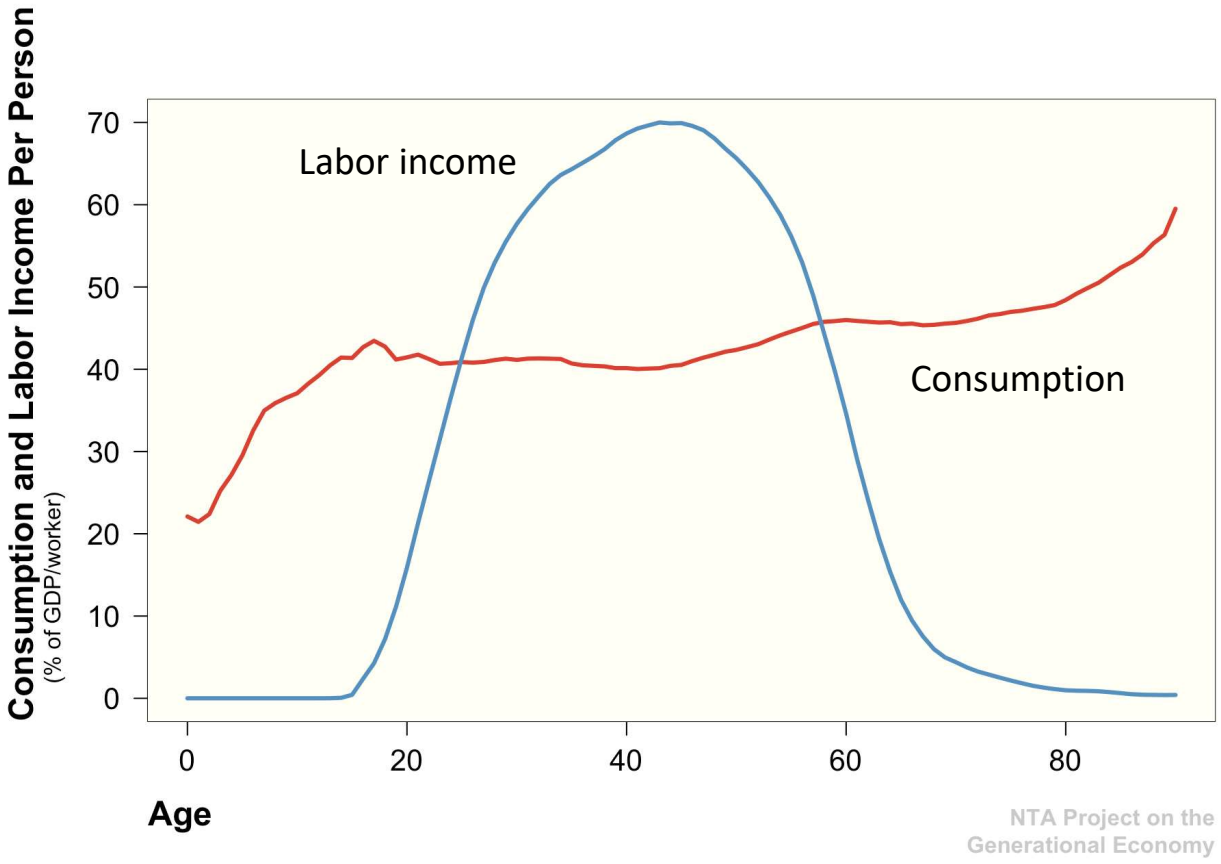
- National Transfer Accounts provide a solution...

- … by measuring economic relationships between age groups within a national economy.

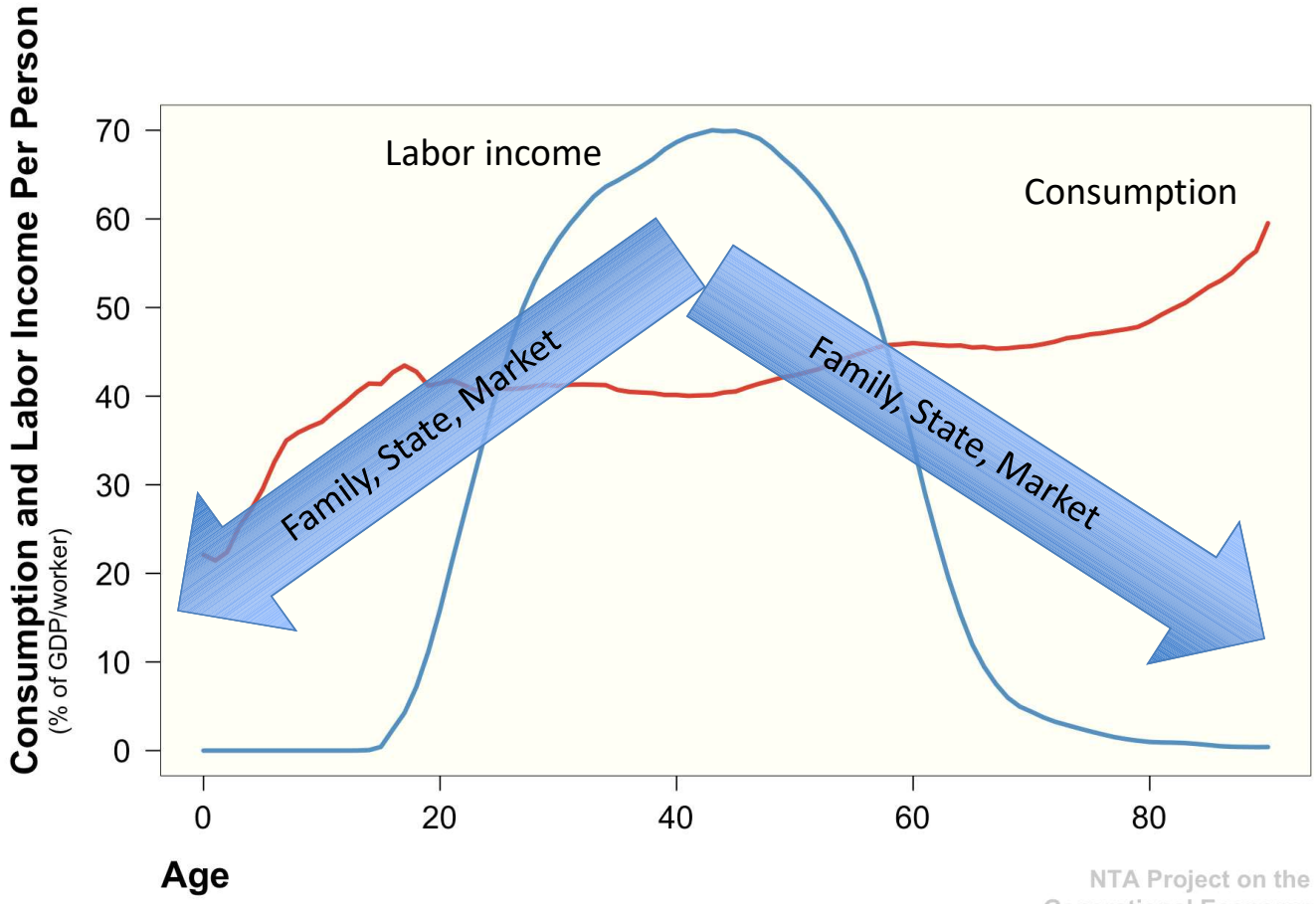
National Transfer Accounts (NTA)

- A “satellite account” of National Accounts which adds two new features:
  ① Measurement of national economic activity **by age**.
  ② Accounting of the intergenerational flow of resources through institutions (the market, the state, and **the family**). Family transfers (within and between households, intervivos and bequests) are large and are unmeasured in National Accounts.

The economic life cycle is characterized by two periods of dependency in which individuals consume more than they produce.



This life cycle pattern of consumption is supported by large resource flows between age groups.



5 Key Strengths of NTA Method

1. Integral Vision	2. Evidence Based	3. Long-run Focus	4. Flexible Framework
• **Of government action**: health, education, pensions, taxation. • **Of economic actors**: government, markets, and families.	• International comparisons. • Historical trends.	• **Adaptation** of government programs and family support systems to population aging. • **Implementation** of social policy with long-run goals (inequality, intergenerational equity).	• **Distributional National Account** • Age • Sex • Educational level

5. The NTA Network!

Why are we here?

- Goals for this workshop:
  - new measures
  - model for impacts
  - What should go in the Intergenerational Report?

- Goals for beyond this workshop:
  - Network
  - Production of the Intergenerational Report.

How

- Presentation
- Hands-on training
- Discussion

Hands-on Part of Workshop

Use Excel spreadsheets.

Step 1. Input values for your country.

Step 2. Spreadsheet "automatically" calculates results.

Step 2a. Some "fine-tuning" to the specific situation of each country may be necessary.

Step 3. Analyze results – usually by creating graphs.

Step 4. Comparison among countries.

"Back of the envelope"

What you will accomplish today

- Measure the population of your country by both chronological and thanatological age.

- Measure population ageing in your country using 4 different indicators:
  - The traditional demographic dependency ratios: young-age, old-age, and total.
  - Three new indicators:
  - Economic dependency ratios using data from National Transfer Accounts.
  - Prospective-age dependency ratios using mortality forecasts.
  - Thanatological-age dependency ratios using mortality forecasts.

What you will accomplish on Tuesday:

- Measure the **Age-structure Transition** in your country
- Identify the 4 stages of this transition
- Identify when your countries is likely to become an **Aged Economy**.
- Measure the percent of national output consumed by children and youth and that consumed by older persons – over time.
- Measure the economic impact of changing population age structure ("**Demographic dividend and demographic tax**") – in two different ways.
- How to explain the magnitude of this economic impact (think recessions!)
- **Forecast GDP per capita** for your country from 2020 to 2100. (Very brave!)
- Examine two policies to counteract the economic impact of population ageing:
- **Policy 1: Extend working-life**. (Encourage later retirement).
- **Policy 2: Promote gender equality in economic life** (Higher female labor force participation = A "gender-equality dividend".)

What you will accomplish on Wednesday:

- **Measure the demographic pressures on public financing** for education, pensions, and health care.
- Project how these demographic pressures will change between 2020 and 2100.
- Measure the impact of public spending in terms of "**Benefit Generosity Ratios**". Compare these internationally.
- Project how these generosity levels are likely to change in your country as GDP per capita increases.
- **Project public spending in education, pensions, and health care from 2020-2100. (Very brave!).**

What you will accomplish on Thursday morning

This morning

Monday, 24 June 2019	
08:30 – 09:00	Registration
09:00 – 10:00	**Item 1: Welcome and course introduction** *Srinivas Tata, Director, Social Development Division, ESCAP* *Tim Miller, Global Adviser on Population and Development, Population Division, DESA*
10:00 – 10:30	***Refreshment break and group photo***
10:30 – 11:00	**Item 2: Population ageing in Asia-Pacific: challenges and opportunities** *Sabine Henning, Chief, Sustainable Demographic Transition Section, Social Development Division, ESCAP*
11:00 – 11:45	**Item 3: "Future-proofing" sustainable development: the need for projections** *Tim Miller, Global Adviser on Population and Development, Population Division, DESA and Mun Sim Lai, Population Affairs Officer, Population Division, DESA*
11:45 – 13:15	***Lunch break***

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Any questions?

You can contact us at tim.miller@un.org and laim@un.org

Next up

Session 2: Population Ageing in Asia-Pacific: Challenges and Opportunities