



International Actuarial Association
Association Actuarielle Internationale



Implicit Pension Debt versus Government Debt

IACA WEBINAR

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10th April 2024

Pensions, the 'unfixable' problem?

- “Some problems just seem too hard for politics to fix.”
- “It's the same issue everywhere: an aging population, fewer young workers to support the elderly, soaring health costs and rising life expectancies. And no political leader has really work out how to sell a fix to their people.”

•* Source: quotes from CNN's “Meanwhile in America”, highlights added
•written by Stephen Collinson, Caitlin Hu and Shelby Rose
•Published on March 10, 2023
•meanwhile@newsletters.cnn.com

THE PATIENT



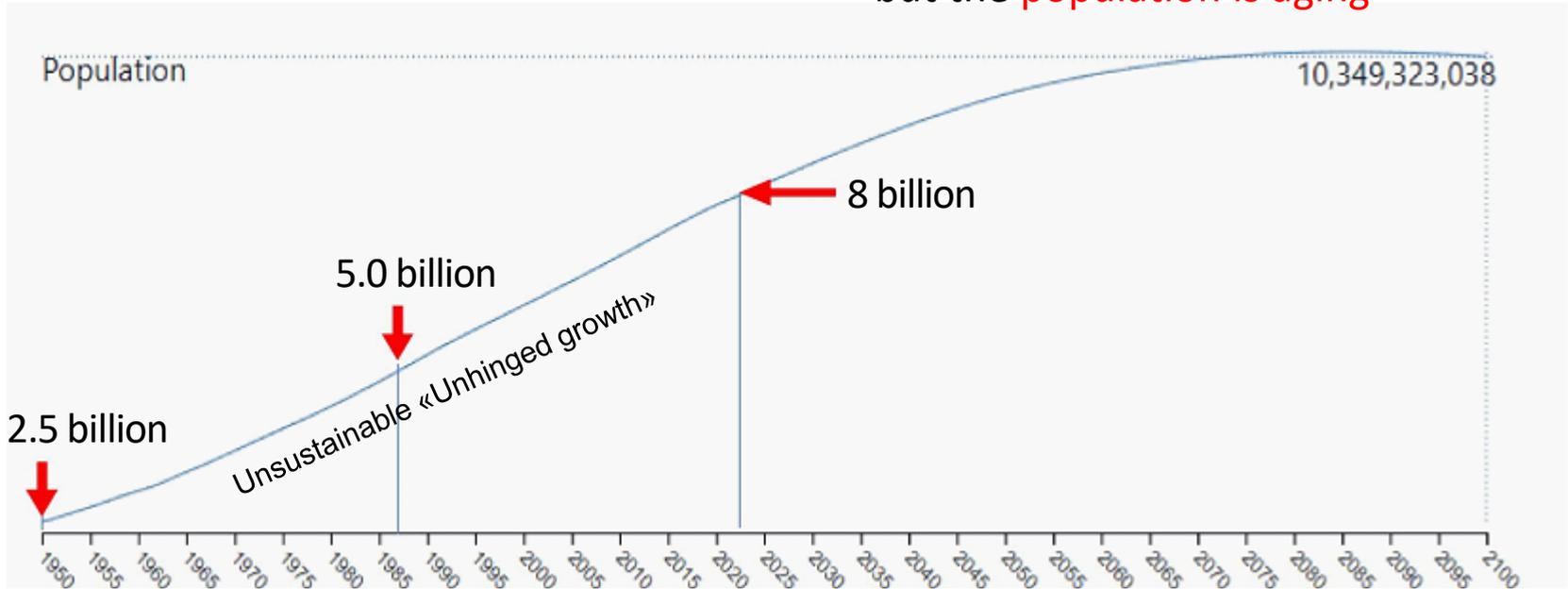
The «patient»

- On 15 November 2022, the world's population reached **8 billion people**, a milestone in human development. This unprecedented growth is due to the **gradual increase in human lifespan** owing to **improvements in public health, nutrition, personal hygiene and medicine**. It is also the result of high and persistent levels of fertility in some countries.
- While it took the global population 12 years to grow from 7 to 8 billion, it will take approximately 15 years—until 2037— for it to reach 9 billion, a sign that the **overall growth rate** of the global population **is slowing.**”



World Population 1950 - 2100

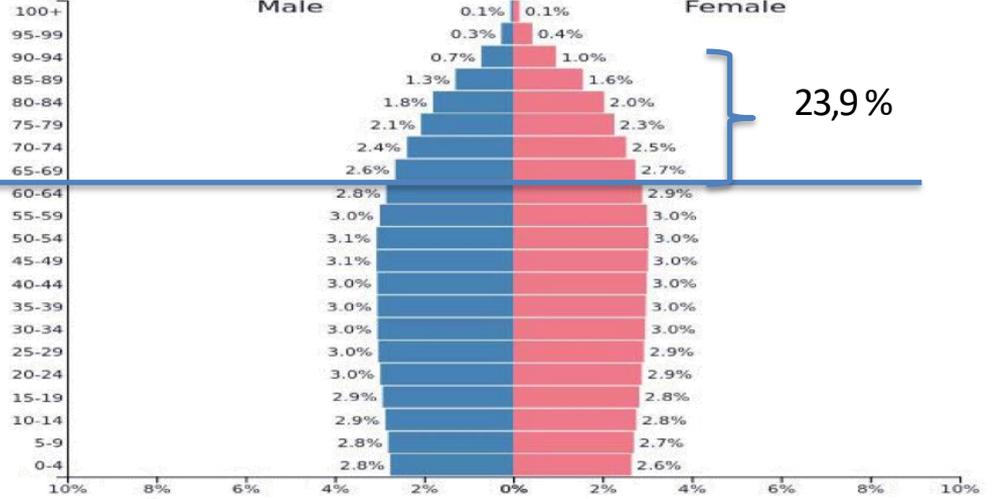
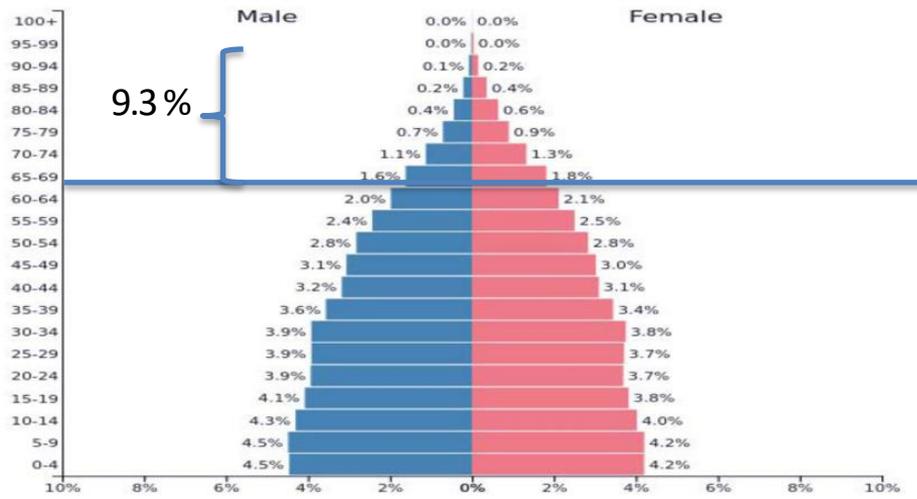
Population growth is slowing ...
but the **population is aging**



•Source:<https://www.populationpyramid.net/world/2100/>



World Population Pyramids 2020 - 2100



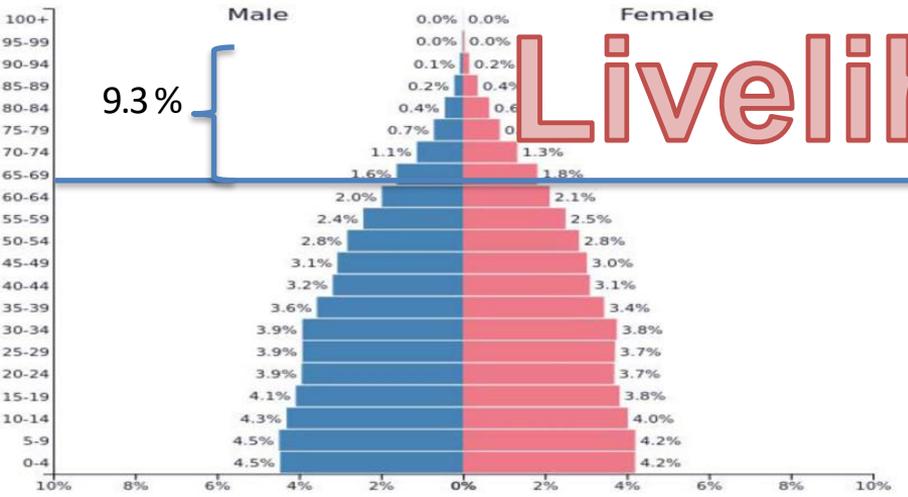
WORLD - 2020
Population: 7,840,952,880
PopulationPyramid.net

WORLD - 2099
Population: 10,360,269,361
PopulationPyramid.net



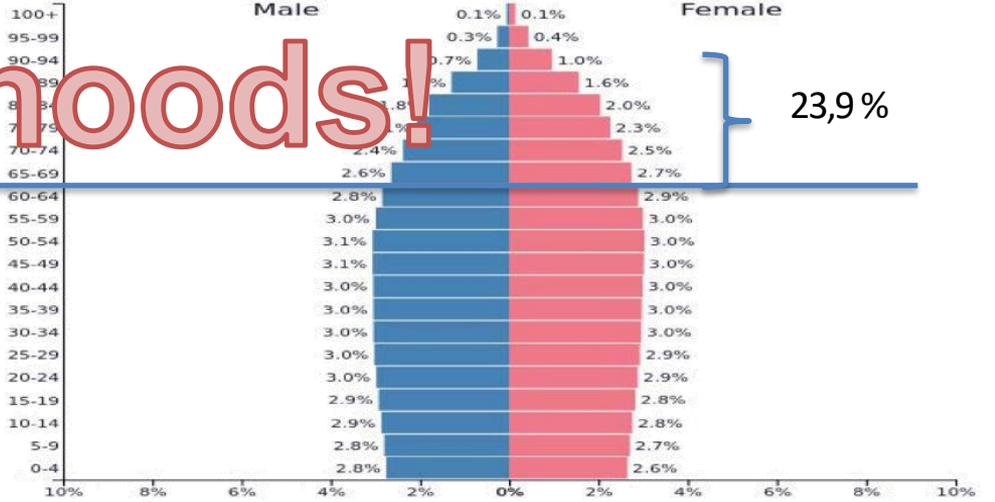
World Population Pyramids 2020 - 2100

Livelihoods!



PopulationPyramid.net

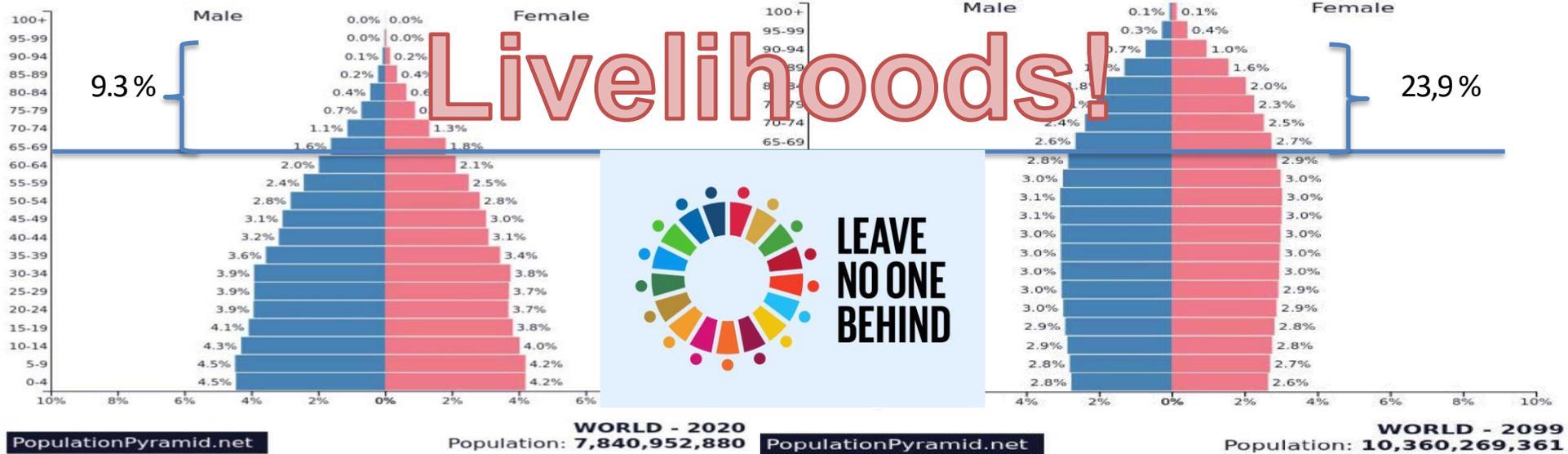
WORLD - 2020
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PopulationPyramid.net

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World Population Pyramids 2020 - 2100



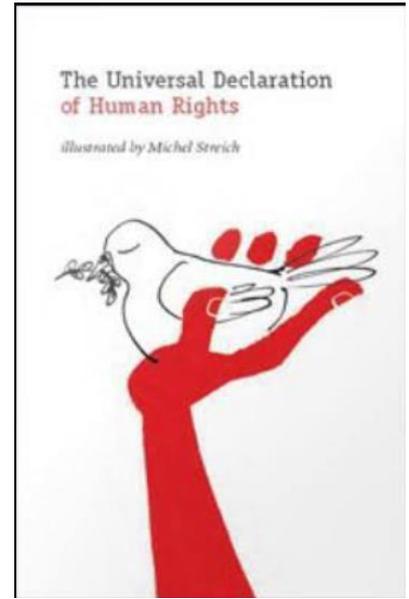
THE FRAMEWORK

PRINCIPLES

The Universal Declaration of Human Rights

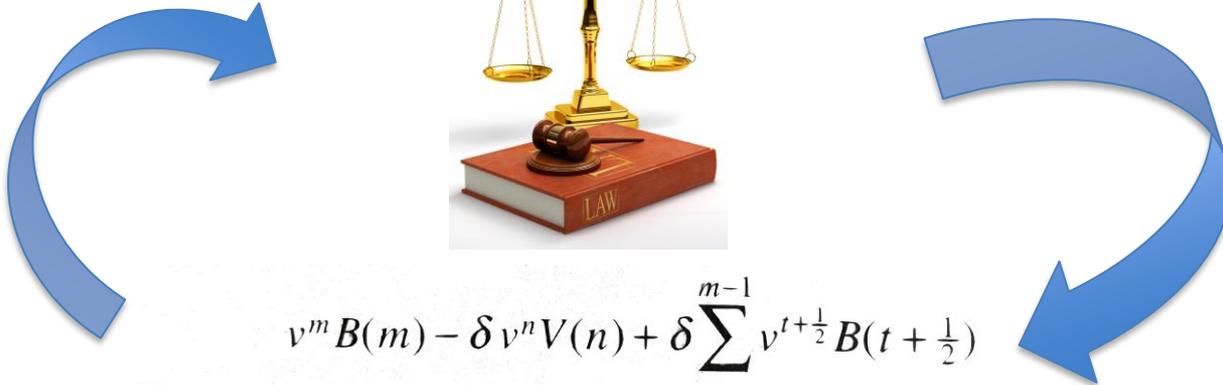
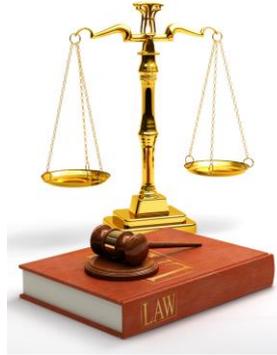
Art. 22 “Everyone, as member of society,
has the right to social security”

$$\Pi_{(n,m)} = \frac{v^m B(m) - \delta v^n V(n) + \delta \sum_{t=n}^{m-1} v^{t+\frac{1}{2}} B(t + \frac{1}{2})}{v^m S(m) + \delta \sum_{t=n}^{m-1} v^{t+\frac{1}{2}} S(t + \frac{1}{2})}.$$



FOCUS OF THE PRESENTATION

NATIONAL COMPULSORY SOCIAL SECURITY PENSION SCHEMES



$$\Pi_{(n,m)} = \frac{v^m B(m) - \delta v^n V(n) + \delta \sum_{t=n}^{m-1} v^{t+\frac{1}{2}} B(t + \frac{1}{2})}{v^m S(m) + \delta \sum_{t=n}^{m-1} v^{t+\frac{1}{2}} S(t + \frac{1}{2})}.$$

FOCUS OF THE PRESENTATION

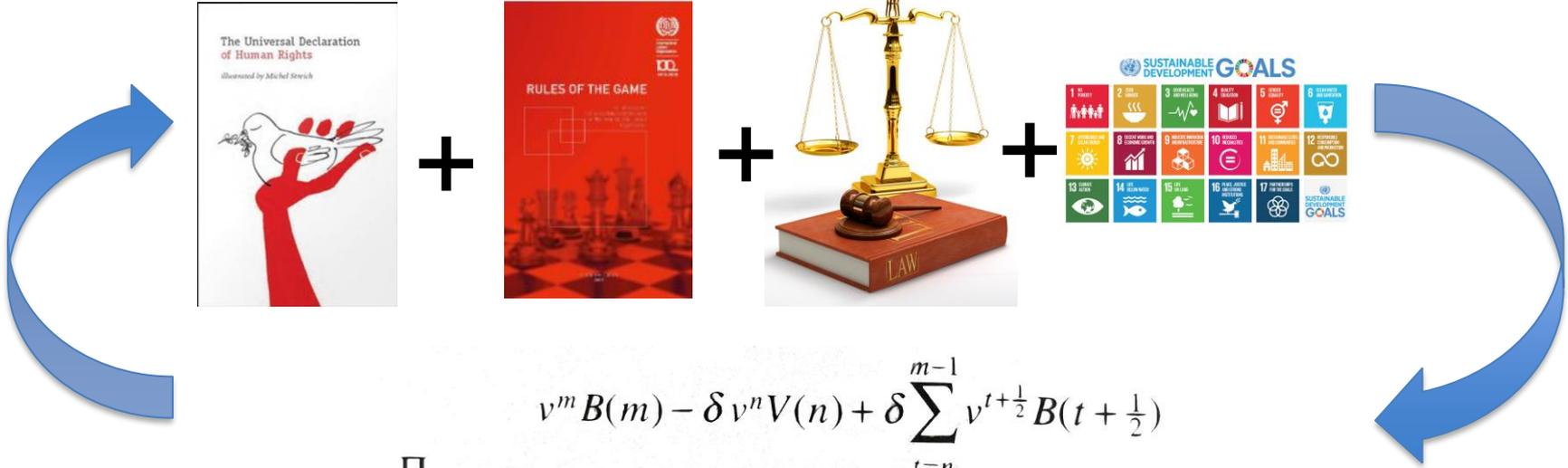
NATIONAL COMPULSORY SOCIAL SECURITY PENSION SCHEMES



$$\Pi_{(n,m)} = \frac{v^m B(m) - \delta v^n V(n) + \delta \sum_{t=n}^{m-1} v^{t+\frac{1}{2}} B(t+\frac{1}{2})}{v^m S(m) + \delta \sum_{t=n}^{m-1} v^{t+\frac{1}{2}} S(t+\frac{1}{2})}$$



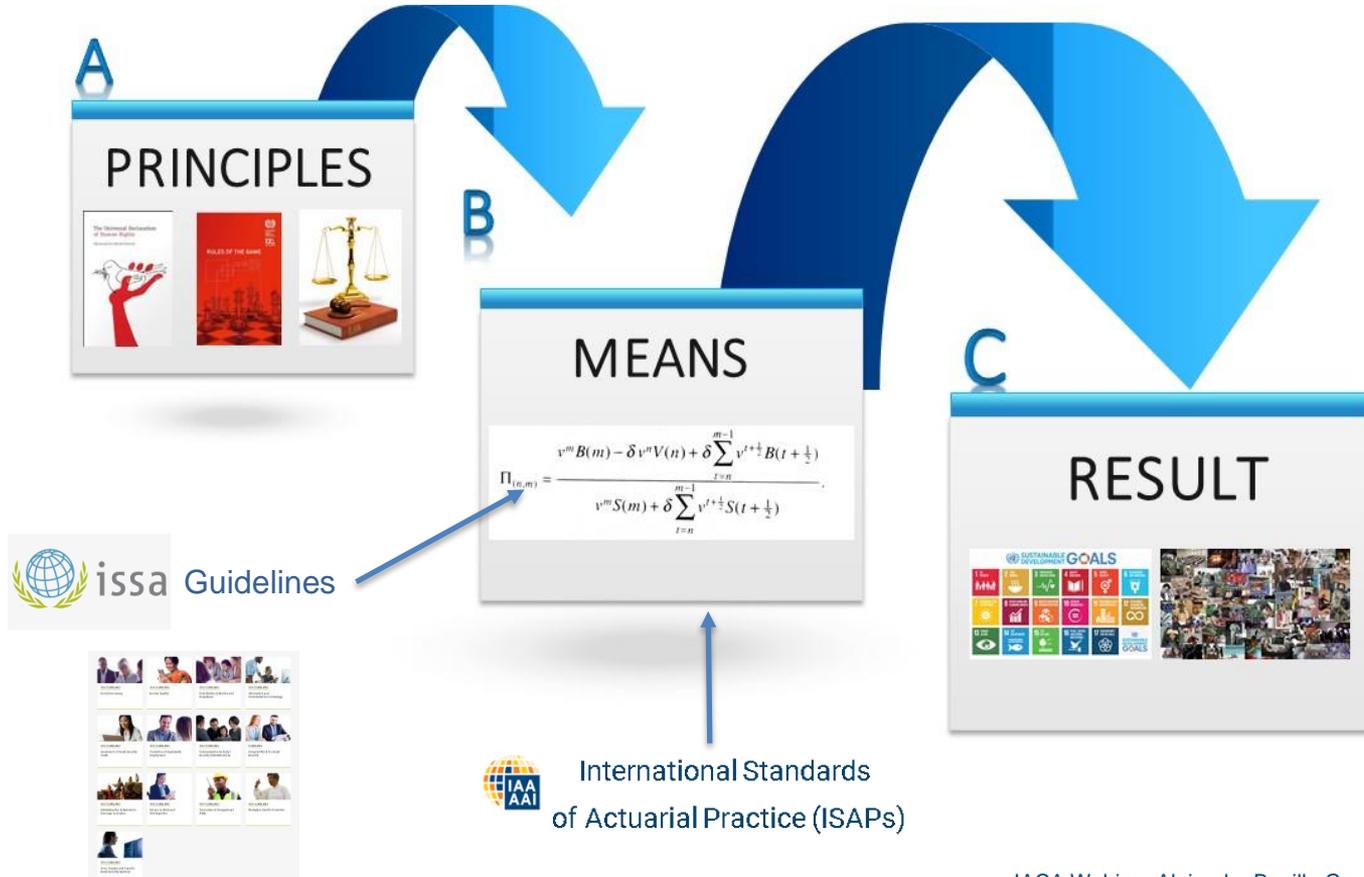
RESPONSIBILITY OF THE STATE



$$\Pi_{(n,m)} = \frac{v^m B(m) - \delta v^n V(n) + \delta \sum_{t=n}^{m-1} v^{t+\frac{1}{2}} B(t + \frac{1}{2})}{v^m S(m) + \delta \sum_{t=n}^{m-1} v^{t+\frac{1}{2}} S(t + \frac{1}{2})}.$$

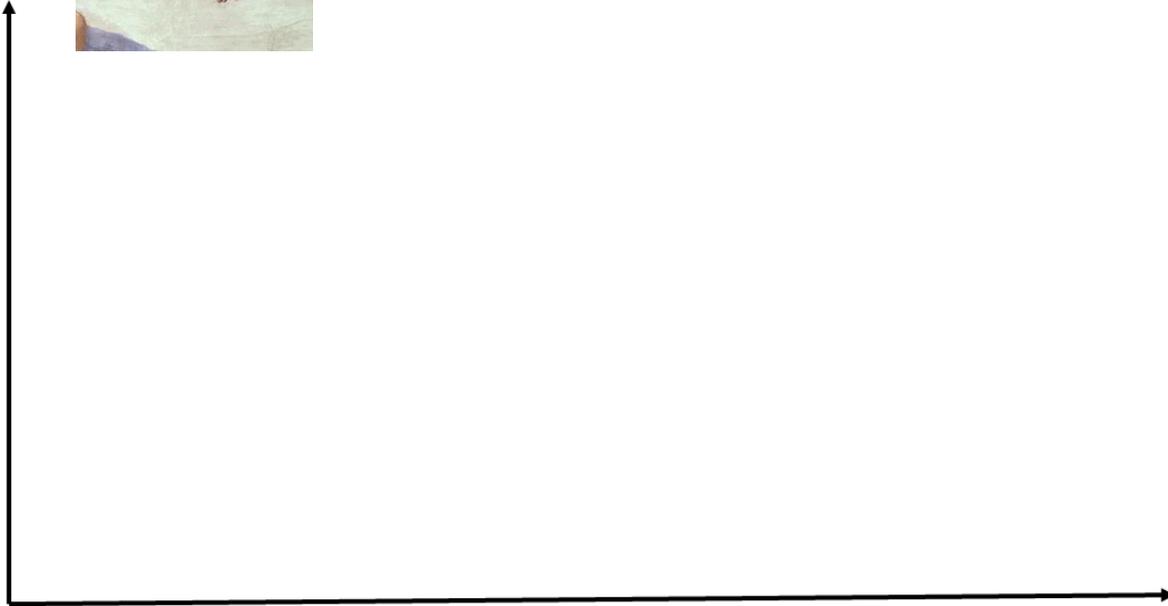
PRINCIPLES, MEANS AND ENDS

360° APPROACH





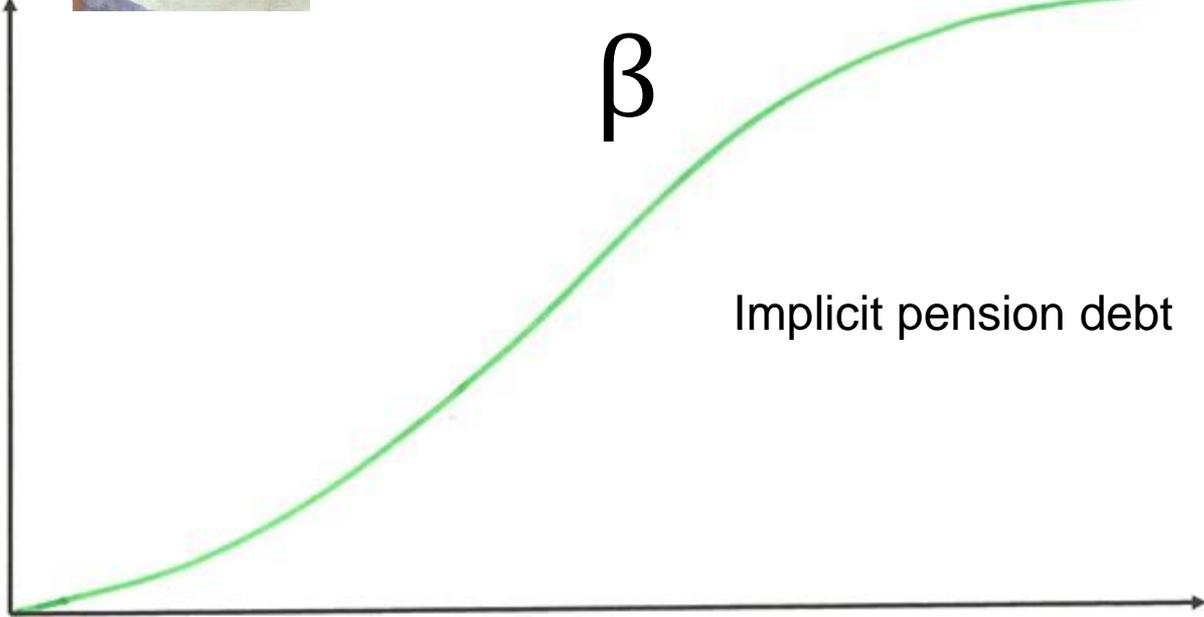
COSTS OF THE NATIONAL PENSION SCHEME



COSTS OF THE NATIONAL PENSION SCHEME



Salaries

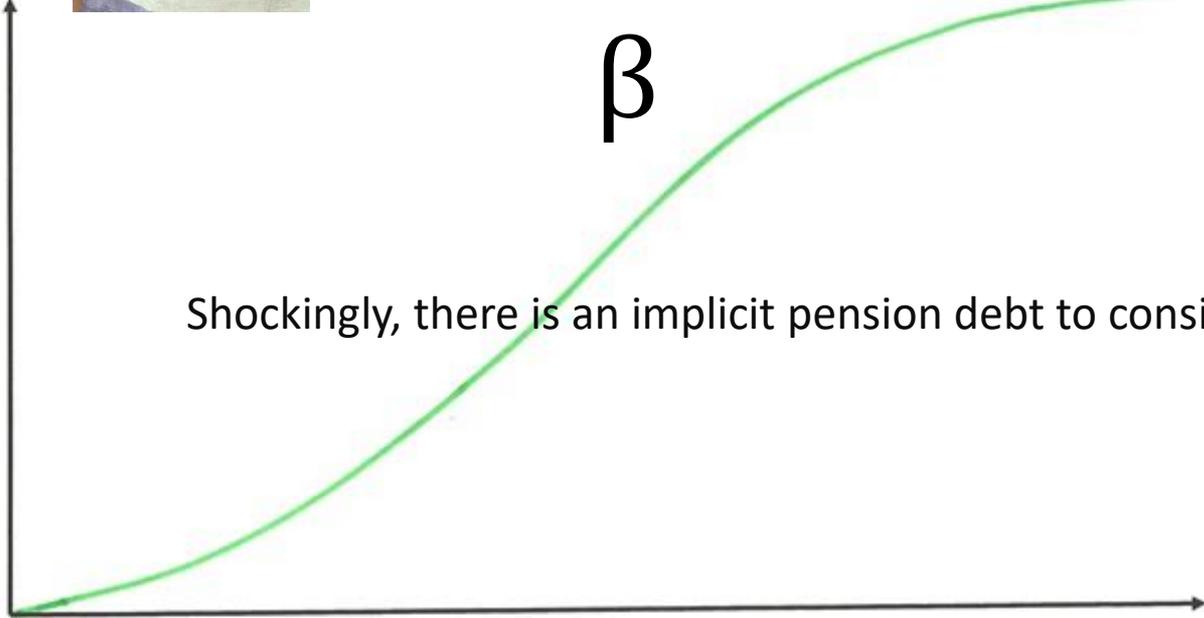


Years

COSTS OF THE NATIONAL PENSION SCHEME



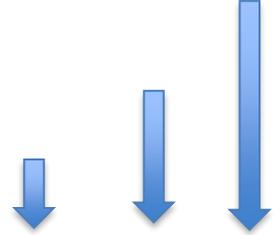
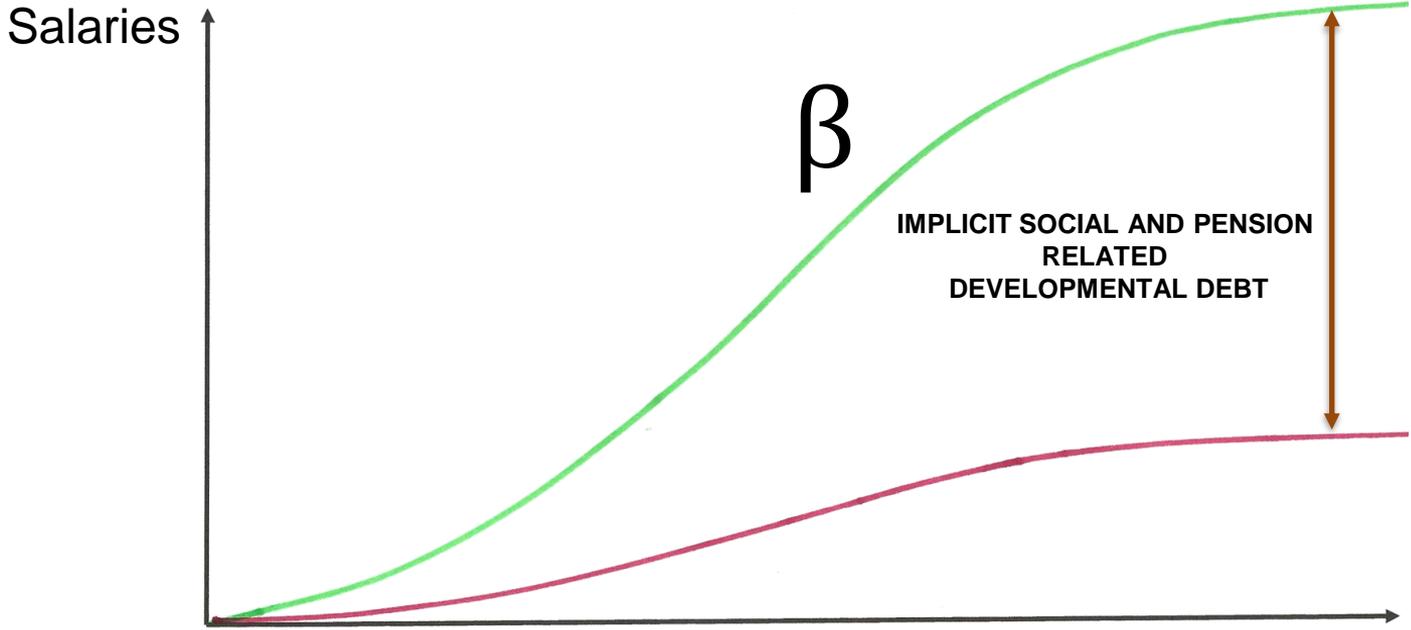
Salaries



Years

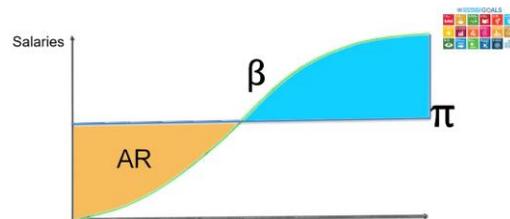
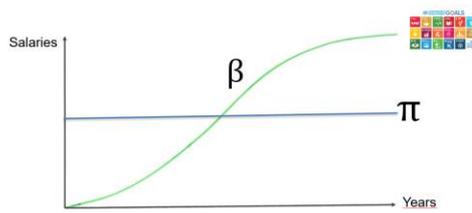
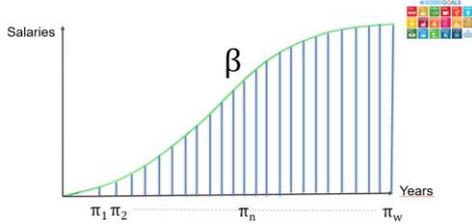
COSTS OF THE NATIONAL PENSION SCHEME

Shockingly, there's also social and developmental pension related debt to consider !

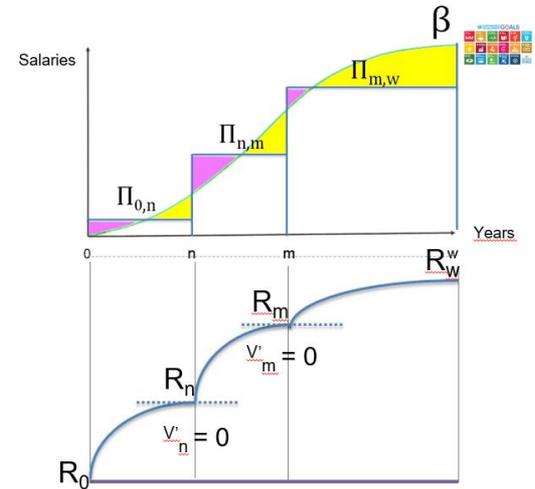


**POVERTY LINE
NON SUSTAINABLE
DEVELOPMENT**

FINANCIAL METHOD – VALUATION METHOD



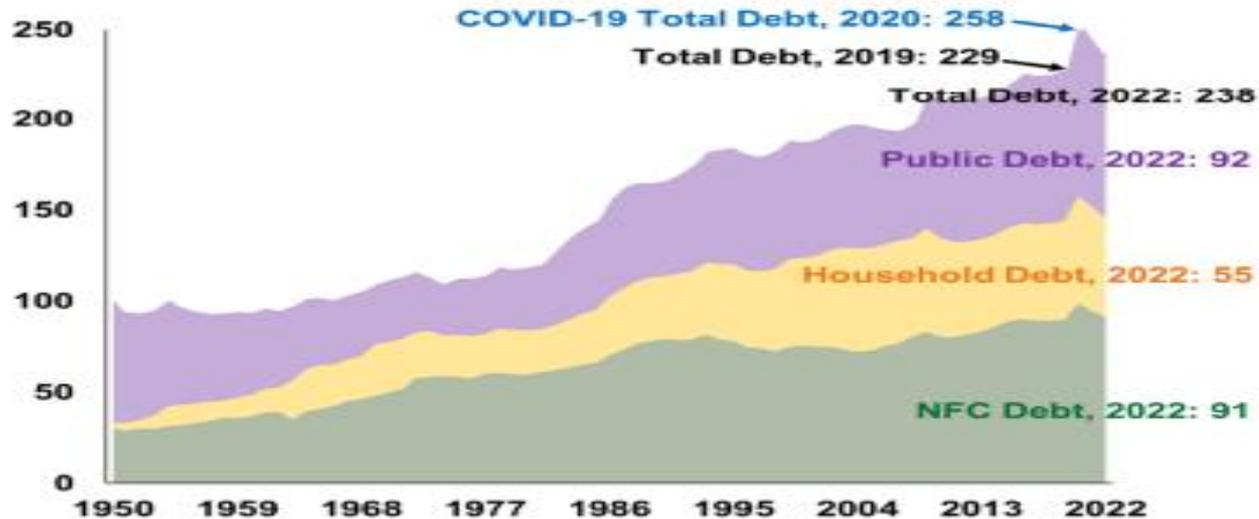
VALUATION METHOD: ACTUARIAL BALANCE



PENSIONS IMPLICIT DEBT
VS
OTHER DEBTS

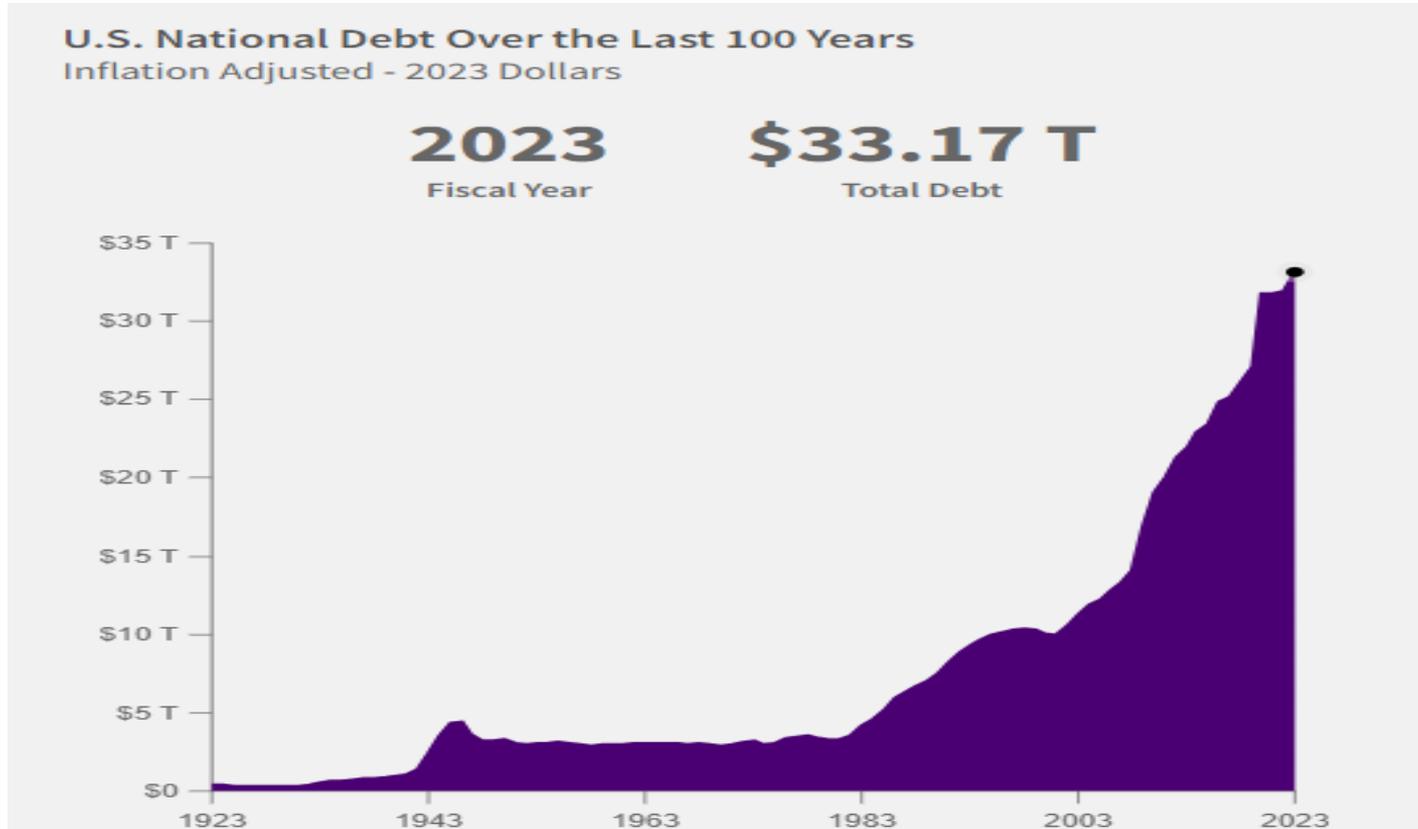
2023 Global Debt Monitor

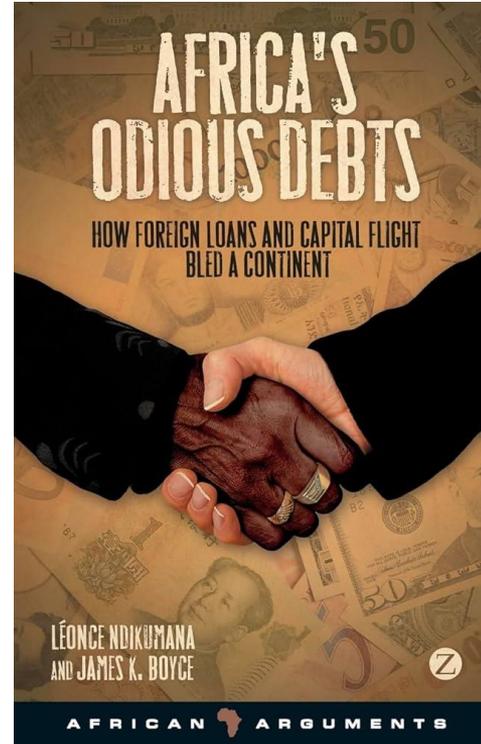
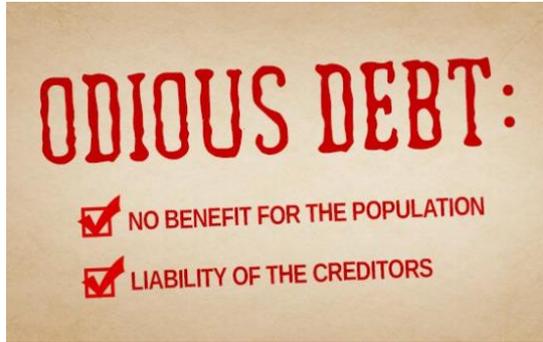
Figure 1. Global Public and Private debt, 1950–2022 (Percent of GDP)





US NATIONAL DEBT 1923 - 2023







Other Developmental LATENT Debts



HOUSING LATENT DEBT



EDUCATIONAL LATENT DEBT



HEALTH SERV. LATENT DEBT



WATER SUPPLY LATENT DEBT



HIGHWAYS LATENT DEBT



PUBLIC SPACES LATENT DEBT



RAILROADS LATENT DEBT



PORTS LATENT DEBT



COMMUNICATION LATENT DEBT

"

We should look at these investments through a positive lens, through what they will bring to society rather than how they will make our debt percentages look.

"

MEP Philippe Lamberts

"

EU economic rules must be changed to give the EU the means to invest in its green and social transition, in people and planet.

"

MEP Philippe Lamberts

Home / News / Economy / Fiscal Policy / EU's new fiscal rules impede fight against climate change: report

EU's new fiscal rules impede fight against climate change: report

By Thomas Moller-Nielsen | Euractiv | Est. 5min

Jan 31, 2024 (updated: Feb 7, 2024)

Content-Type: News



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- 2 The cost of Europe's new nuclear power plants
- 3 Tens of thousands march in Budapest against Orbán
- 4 Ukraine-sceptic Pellegrini wins Slovakia presidential election
- 5 Climate-warming gases being smuggled into Europe, investigation says
- 6 France, Germany and Italy eye 'omnibus' law to cut regulatory burden



NEWS

An Agreement on EU fiscal rules will make it impossible for Member States to invest in the Just Transition

© 16 February 2024

Debt rules will affect the most vulnerable, EU trade union chief warns

By Théo Bourgey-Gonse | Euractiv.com | Est. 5min

Nov 16, 2023

Content-Type: News



"What we are absolutely asking for is for fiscal scope, managing the green transition, and social expenditures". The current state of things is such that there are "no safeguards that it will not affect the most vulnerable," she claimed. (YON VALAT/EPA CRE)

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The new EU rules for national debts and deficits will limit member states' ability to act on climate change in a socially fair manner, the secretary general of the European Trade Union

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- 9 Conservative PiS' local election lead shakes Tusik's power in Poland
- 10 Macron says he has no doubt Russia will target Paris Olympics



OTHER LATENT DEBTS TO ADDRESS OBSTACLES TO DEVELOPMENT



DEFENSE LATENT DEBT?

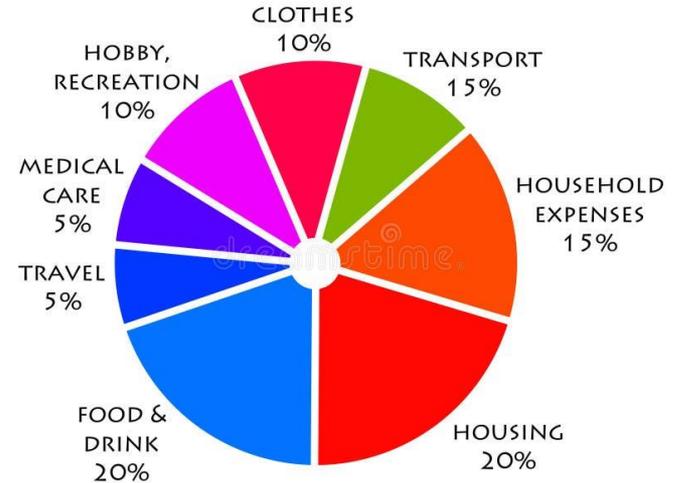
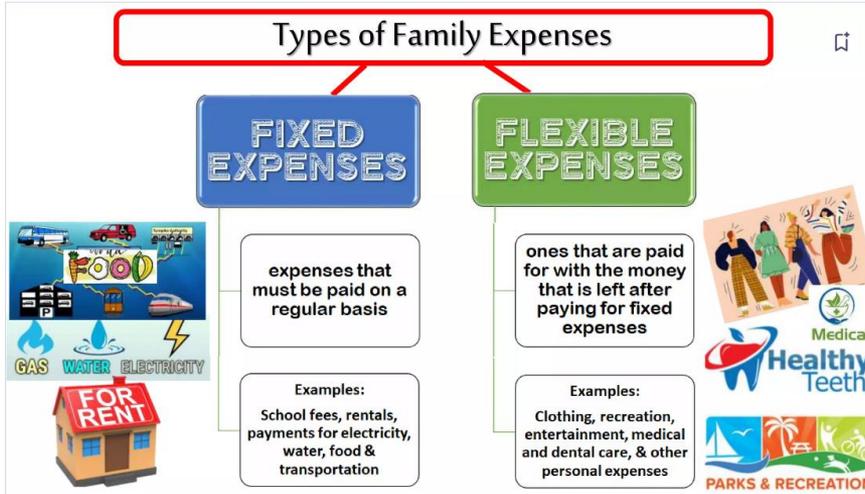


**RESSOURCES TO STOP
ILLEGAL ARM
TRAFFIQUING LATENT
DEBT?**



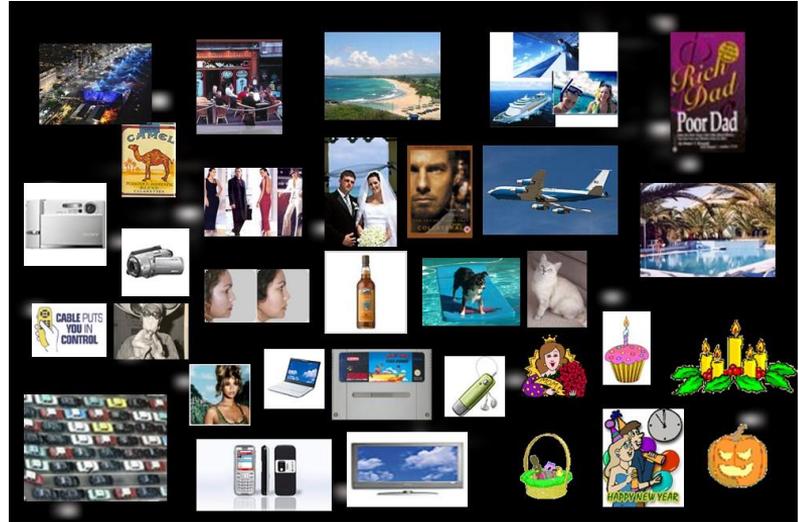
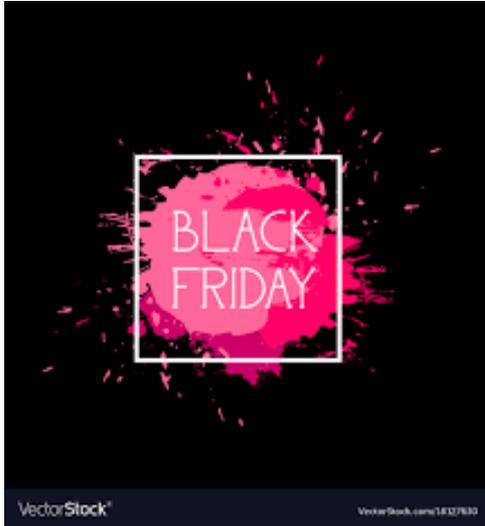
**RESSOURCES TO STOP
ILLEGAL TRAFFIQUING
LATENT DEBT?**

IMPLICIT FAMILY DEBT





ODIOUS FAMILY DEBT



The European Court of Human Rights condemns Switzerland for climate inaction



The European Court of Human Rights (ECHR) on Tuesday condemned Switzerland for violating the Convention on Human Rights, ruling in favor of the association **"Seniors for the Climate"** which **attacked Switzerland's inaction in the face of to climate change.**

This is the first time that the Court, which enforces the European Convention for the Protection of Human Rights, **has condemned a State for its lack of initiatives to combat climate change.**

In May 2020, the Federal Court rejected the appeal of the association of Elders for climate protection. In particular, **he estimated that older women were not more concerned by the consequences of climate change than other groups of the population.**

Pensions: An intergenerational developmental challenge

- “Some problems just seem too hard for politics alone to fix.; actuarial innovation, audacity and voice are needed ”



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Association Actuarielle Internationale



Implicit Pension Debt versus Government Debt

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MANY THANKS FOR
YOUR ATTENTION!

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