

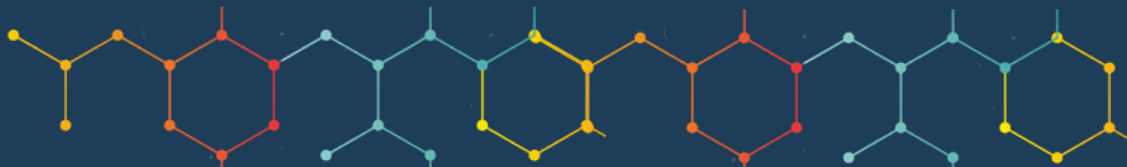
# Modeling the Impact of COVID-19 on the Sustainable Development Goals

Training on the International Futures Tool

COVID-19 Recovery Pathways:  
The 'SDG Push' Scenario

Tuesday 25 May 2021

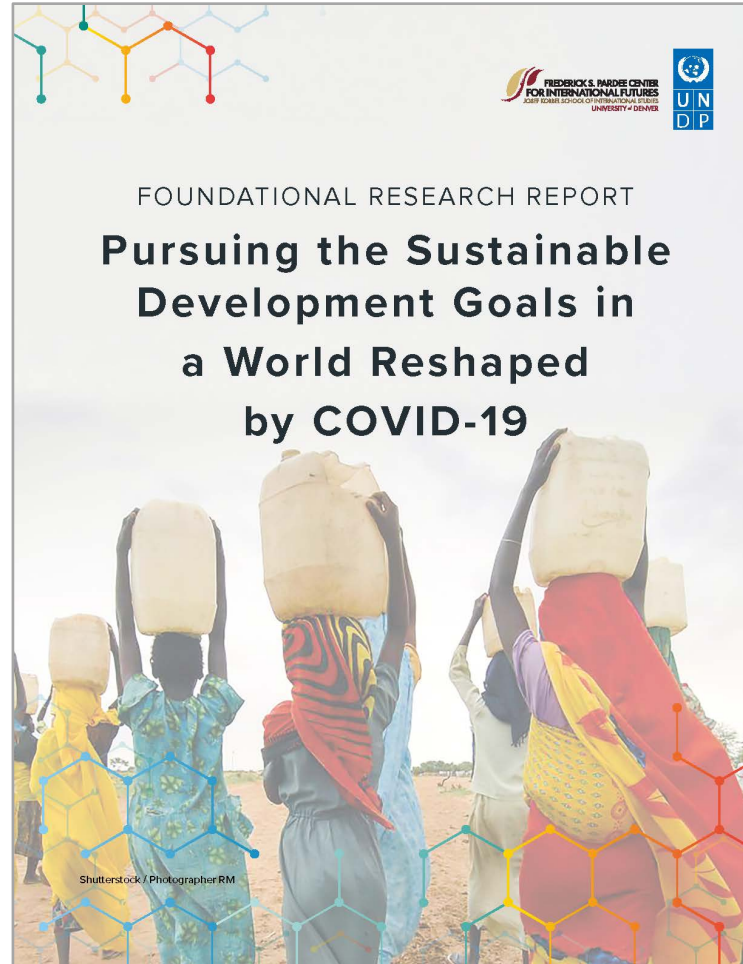
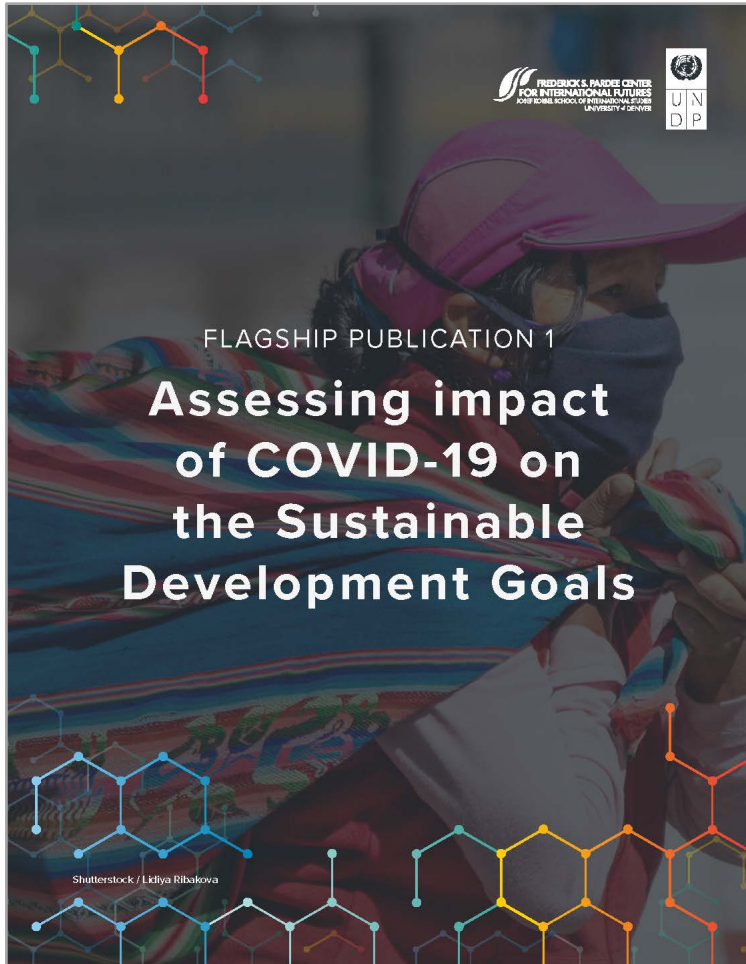
<https://www.sparkblue.org/IFs>



# Introductions

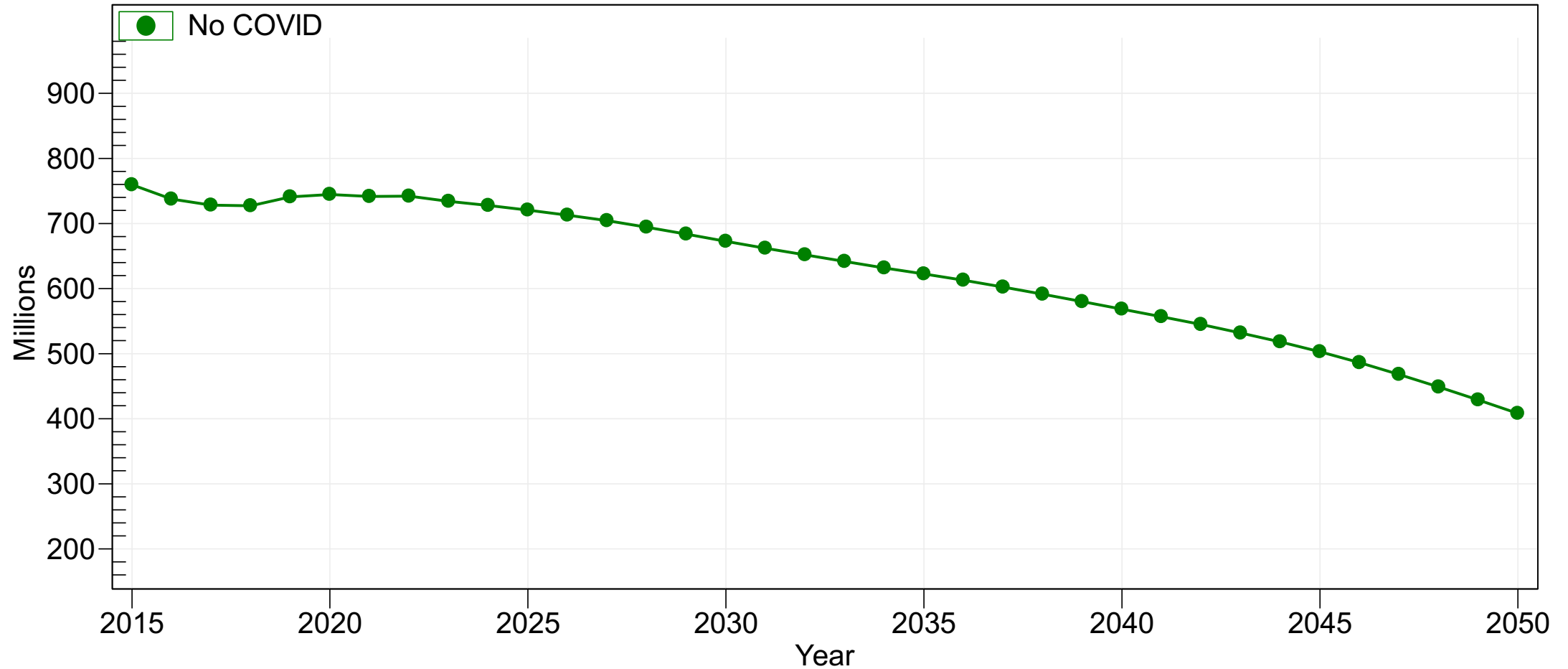
- Welcome from UNDP SDG Integration!
- Meet your trainers:
  - David Bohl
  - Jonathan Moyer
- International Futures
  - Support
- COVID on the SDGs:
  - Scenario Analysis

# COVID-19 and the SDGs



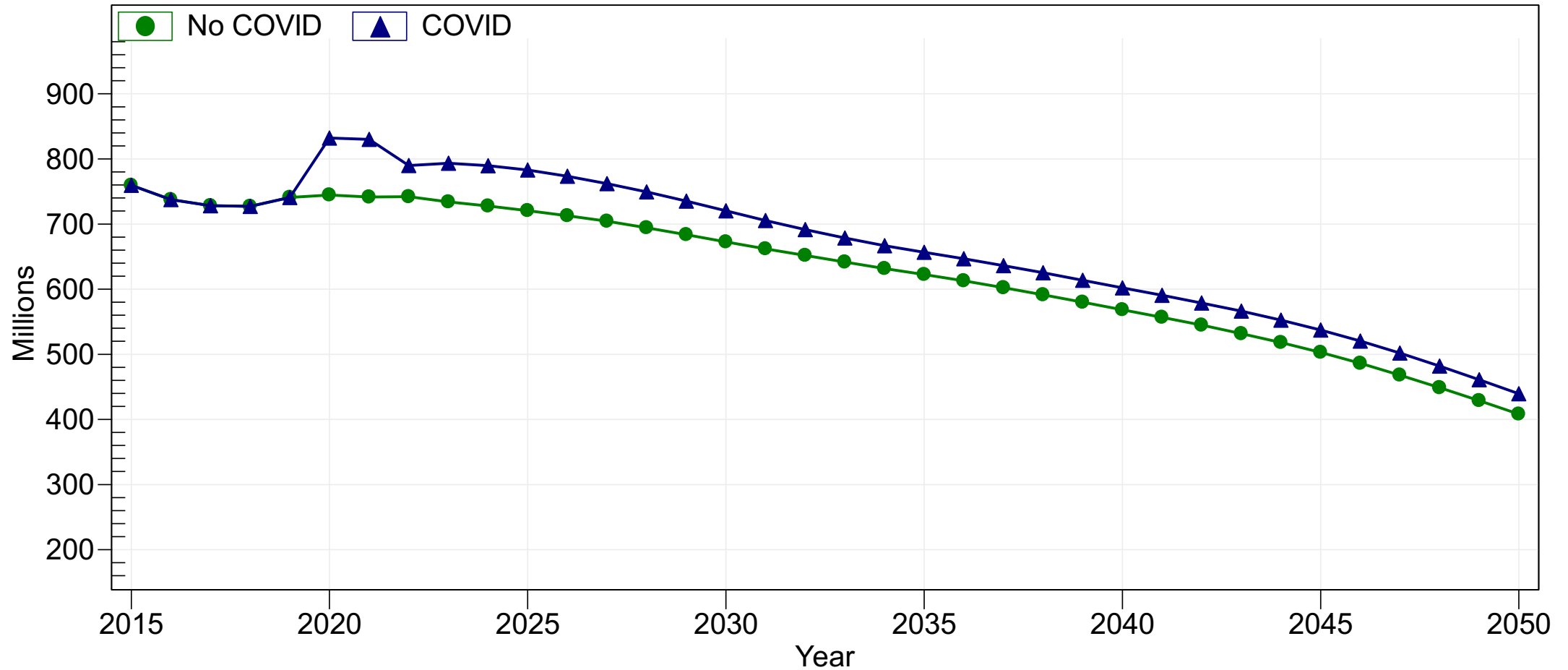
# COVID-19 and the SDGs

Global Poverty Headcount <\$1.90 per Day, Log Normal



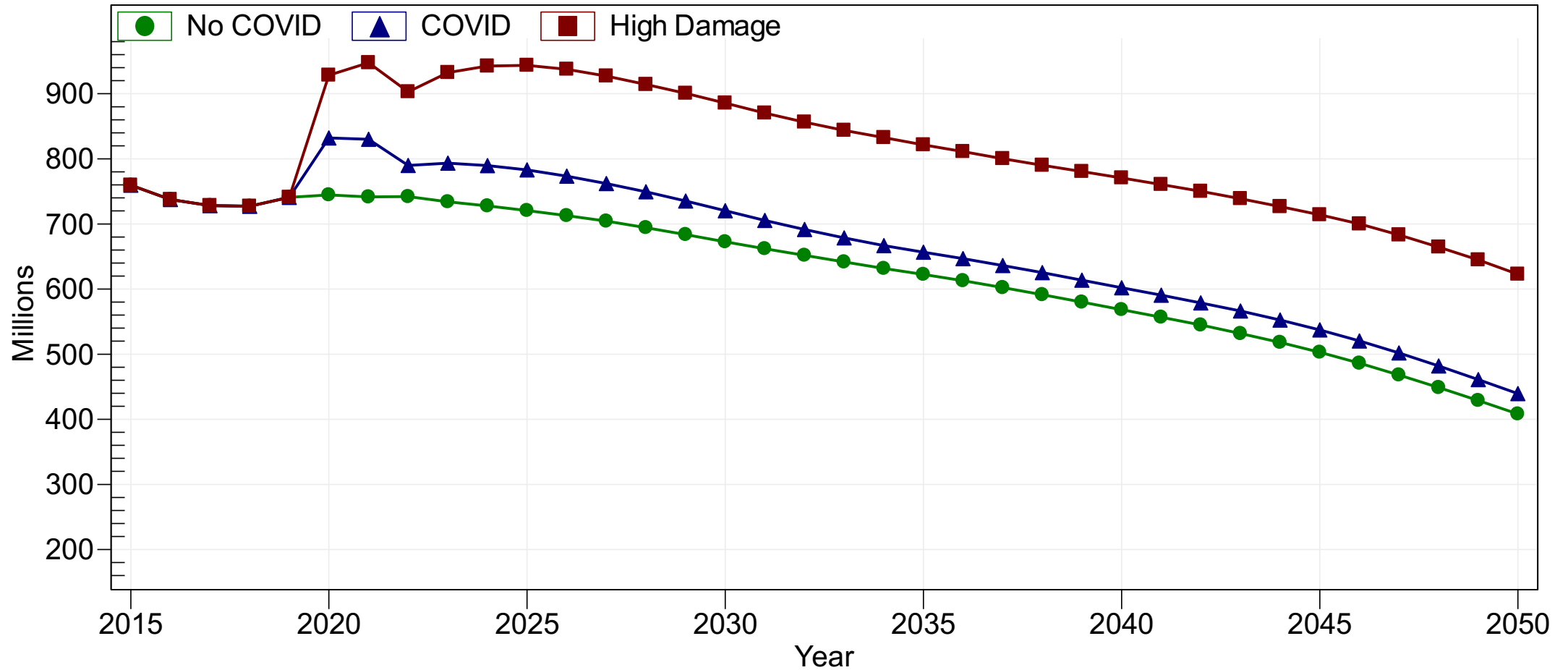
# COVID-19 and the SDGs

Global Poverty Headcount <\$1.90 per Day, Log Normal



# COVID-19 and the SDGs

## Global Poverty Headcount <\$1.90 per Day, Log Normal



# The SDG Push scenario

## Social Protection

- Shift towards a more crop-based diet
- Modernization of cookstoves
- Increased public health spending
- Greater welfare transfers in low-income economies
- Increased access to piped water and improved sanitation

## Digital Disruption and Innovation

- Higher secondary education graduation rates
- Increased focus on science and engineering graduates
- Greater education budget allocation
- Higher research & development spending
- Higher infrastructure spending
- Increased access to fixed and mobile broadband

## Governance

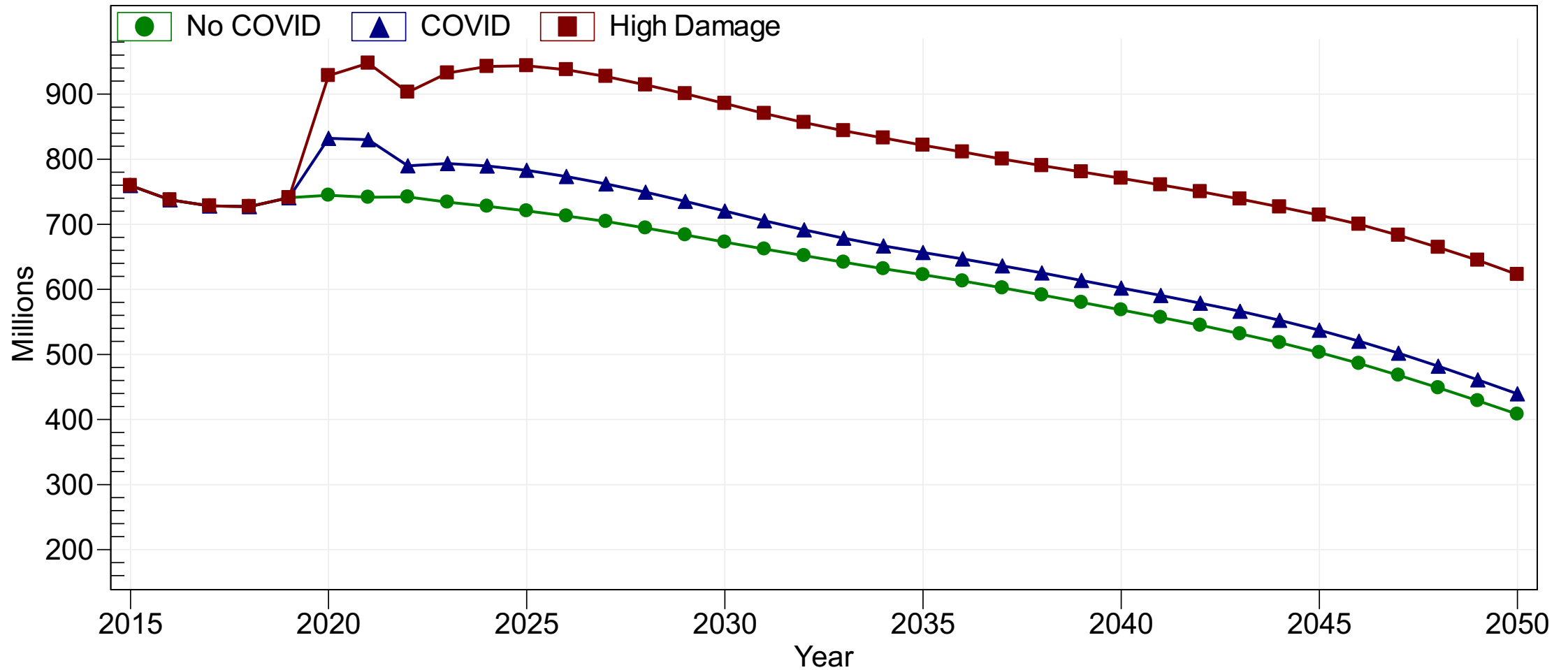
- Strengthened democratic institutions
- Increased government transparency

## Green Economy

- Lower water demand
- Reduced electricity transmission loss
- Improved urban air quality
- Reforestation
- Stronger carbon tax regime
- Reduced energy intensity in the economy
- Greater investment in renewable resources
- Reduced energy demand
- Increased electricity access
- Reduced agricultural losses
- Improved crop yields
- Reduced fish catches for largest producers

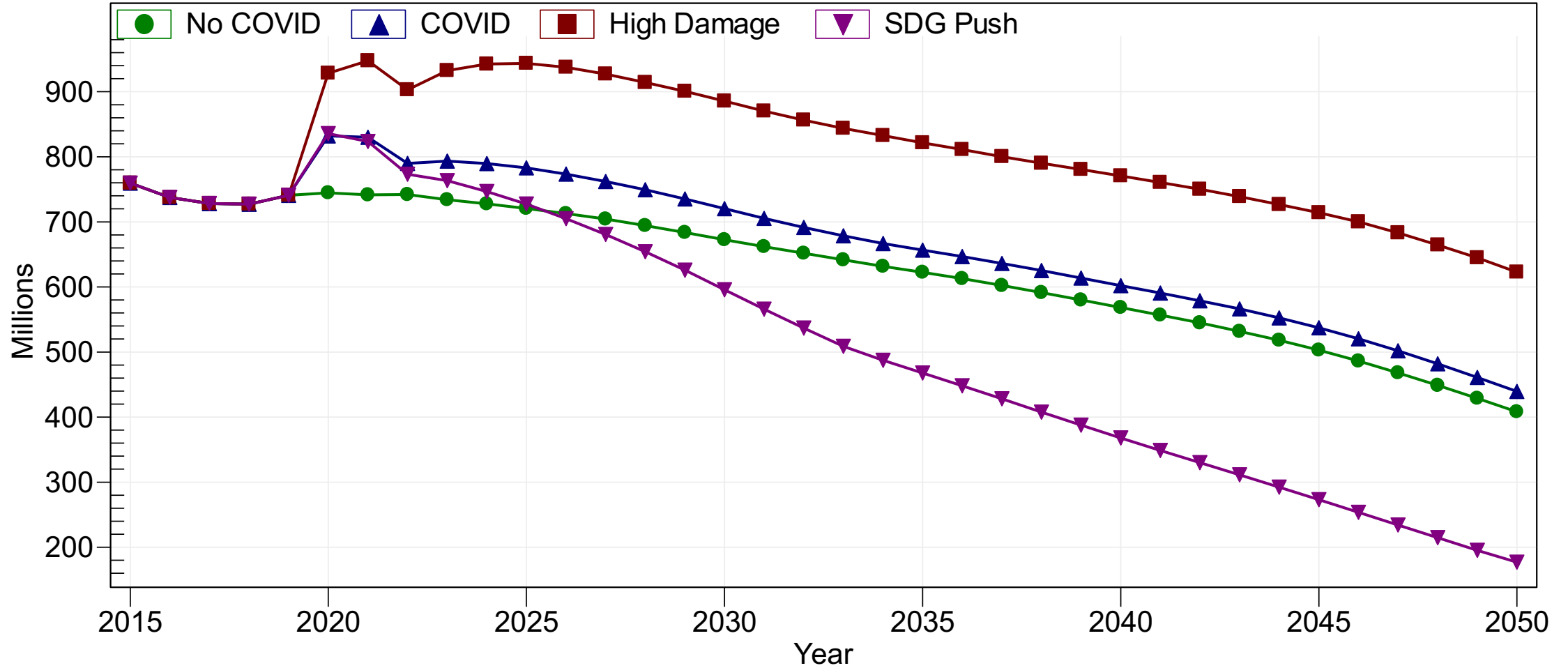
# COVID-19 and the SDGs

## Global Poverty Headcount <\$1.90 per Day, Log Normal

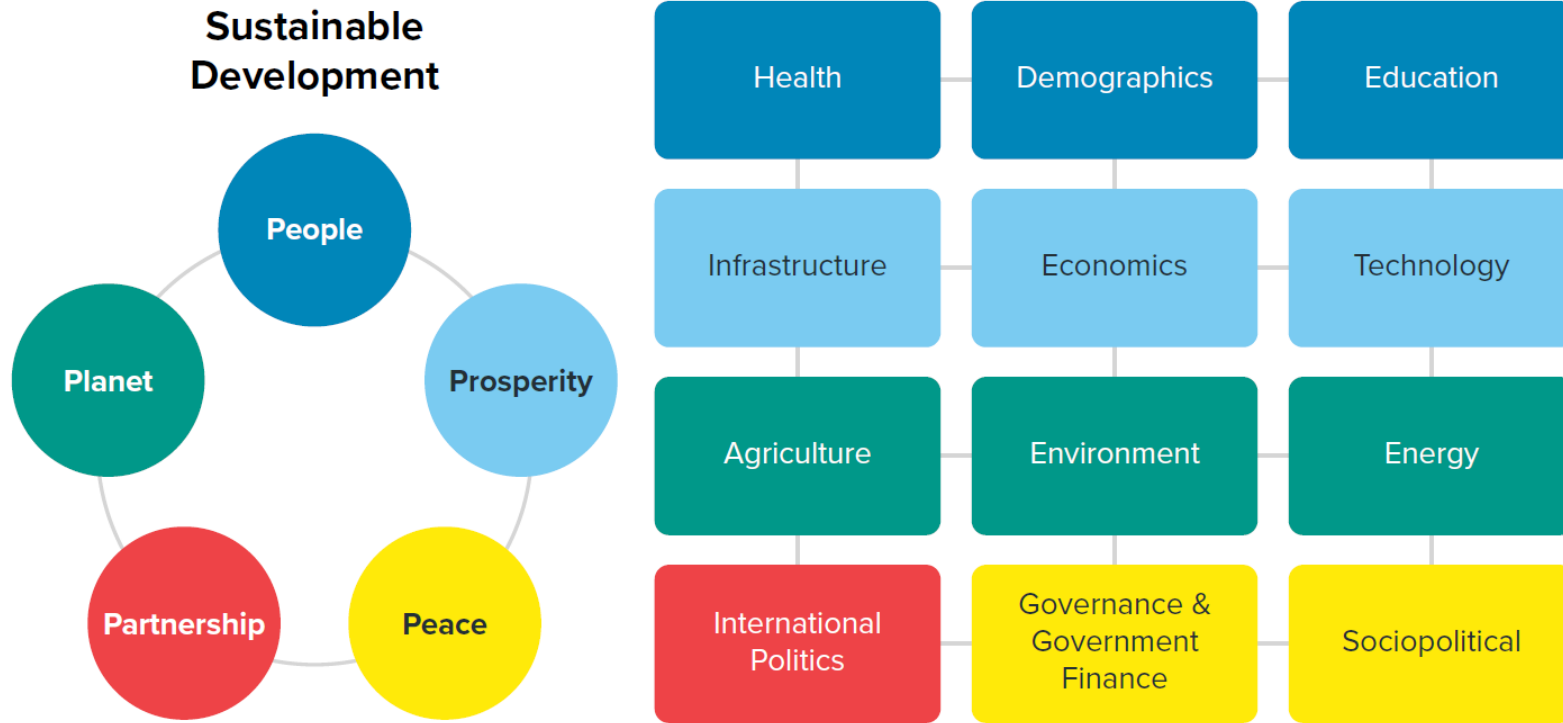


# COVID-19 and the SDGs

## Global Poverty Headcount <\$1.90 per Day, Log Normal



# International Futures (IFs)



**Box Figure B2.1. The Five “Ps” and the associated models of the IFs system**

Note: The models of IFs are heavily interconnected.

What is the purpose of models?

A model is a representation of reality. They can help us think, plan and collaborate.

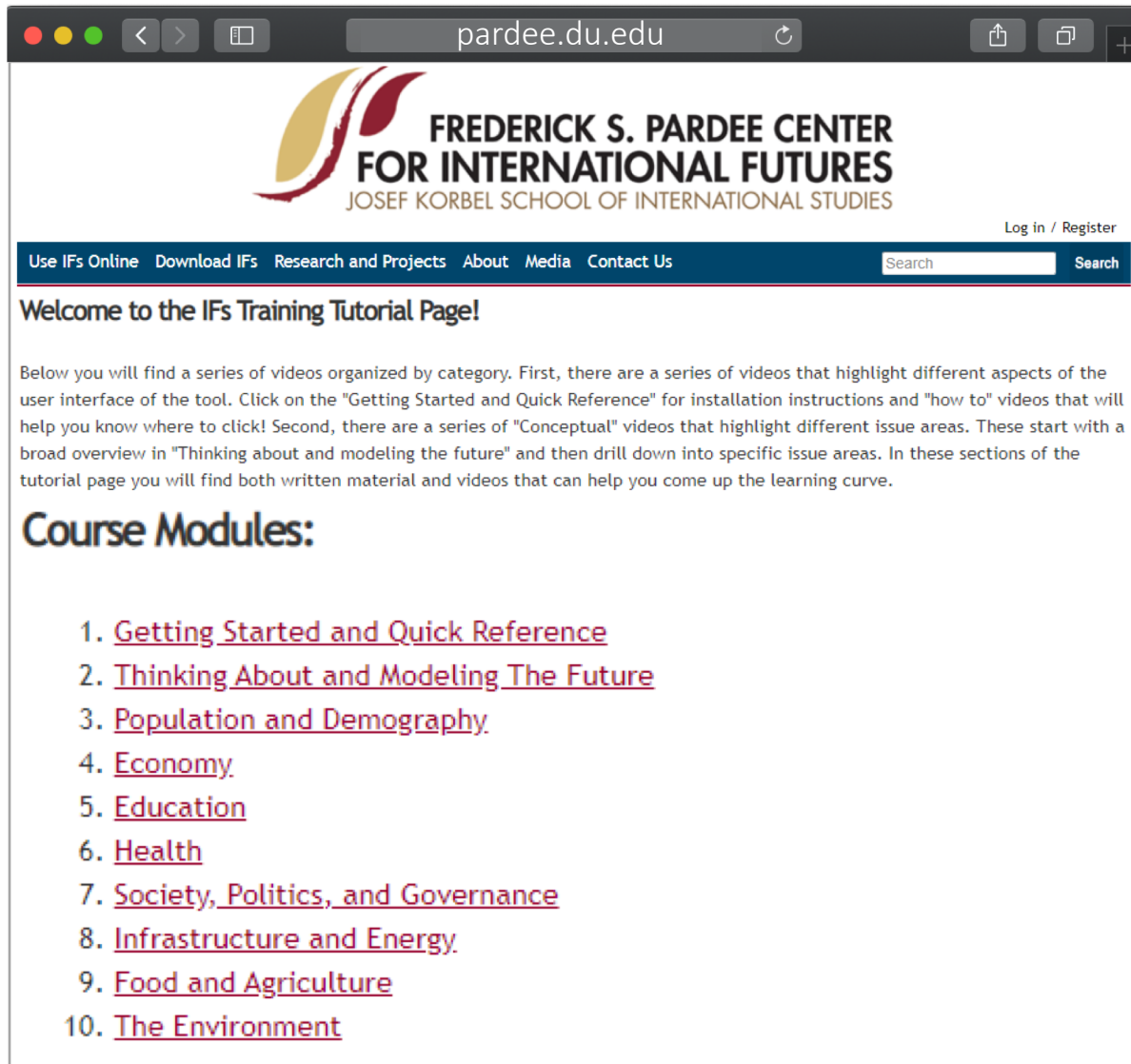
This is a large model and you should expect to learn about different aspects of the model as you go.

Learning about the model is not easy and requires an investment on your part.

# Opening the “black box”: layers of support

- Basic "How to?" videos: <https://pardee.du.edu/ifs-course/getting-started-quick-reference>
  - Additional course materials: <https://pardee.du.edu/ifs-course>
- Publications: <https://pardee.du.edu/patterns-potential-human-progress>
- Help system wiki: [https://pardee.du.edu/wiki/Main\\_Page](https://pardee.du.edu/wiki/Main_Page)
  - Poverty wiki: [https://pardee.du.edu/wiki/Economics#Poverty\\_2](https://pardee.du.edu/wiki/Economics#Poverty_2)
- Network map of relationships in IFs: <http://34.215.105.41:8080/ifn/>
  - “Drivers” map in IFs (we can show if we have time, but probably during office hours)
- SparkBlue FAQ: <https://www.sparkblue.org/IFs-FAQ-covid-19>

# Videos and training



The screenshot shows the website for the Frederick S. Pardee Center for International Futures at the Josef Korbel School of International Studies. The page is titled "Welcome to the IFs Training Tutorial Page!" and provides an overview of the video content. Below the overview, there is a list of course modules.

pardee.du.edu

**FREDERICK S. PARDEE CENTER FOR INTERNATIONAL FUTURES**  
JOSEF KORBEL SCHOOL OF INTERNATIONAL STUDIES

Log in / Register

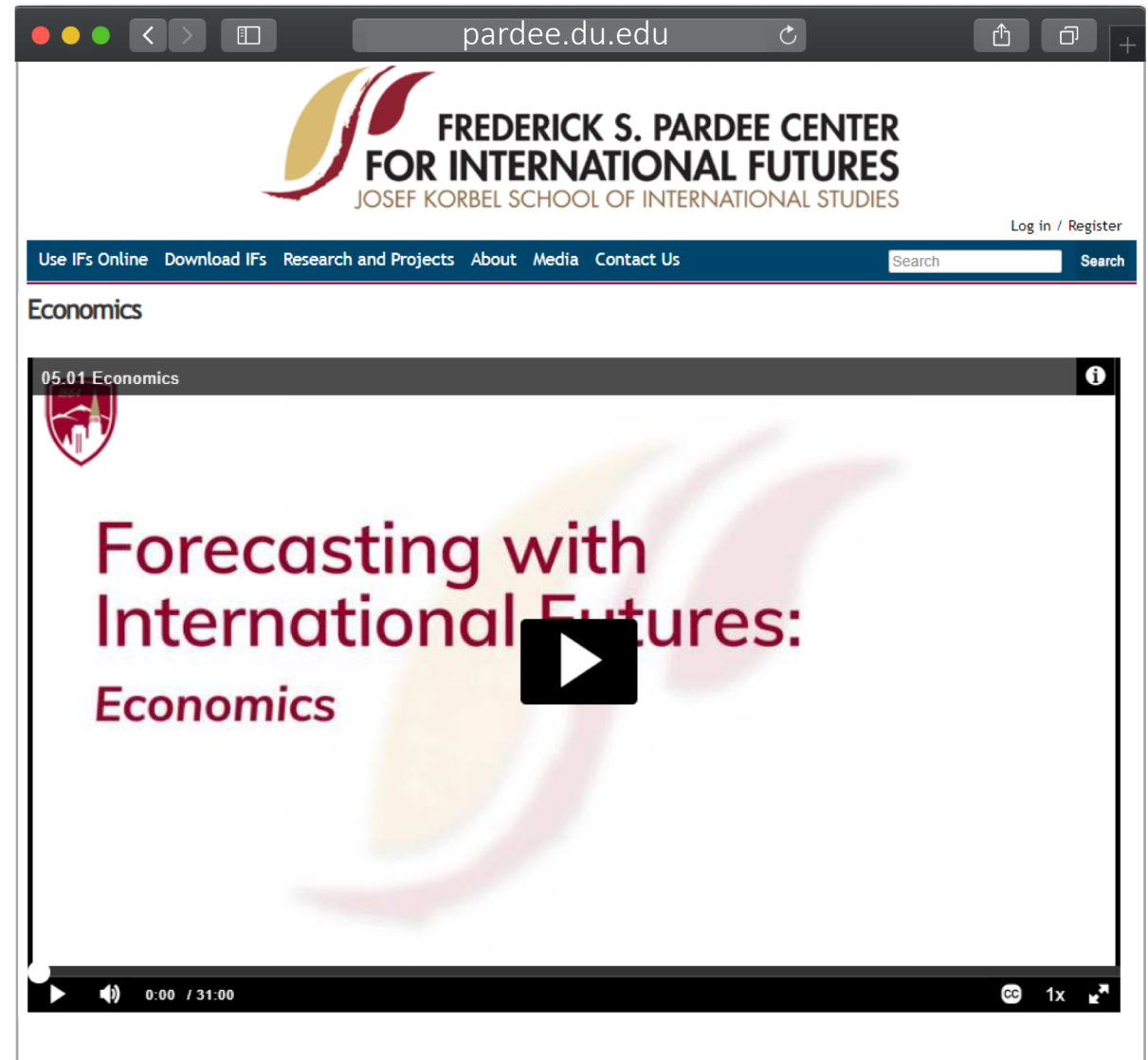
Use IFs Online Download IFs Research and Projects About Media Contact Us Search Search

## Welcome to the IFs Training Tutorial Page!

Below you will find a series of videos organized by category. First, there are a series of videos that highlight different aspects of the user interface of the tool. Click on the "Getting Started and Quick Reference" for installation instructions and "how to" videos that will help you know where to click! Second, there are a series of "Conceptual" videos that highlight different issue areas. These start with a broad overview in "Thinking about and modeling the future" and then drill down into specific issue areas. In these sections of the tutorial page you will find both written material and videos that can help you come up the learning curve.

### Course Modules:

1. [Getting Started and Quick Reference](#)
2. [Thinking About and Modeling The Future](#)
3. [Population and Demography](#)
4. [Economy](#)
5. [Education](#)
6. [Health](#)
7. [Society, Politics, and Governance](#)
8. [Infrastructure and Energy](#)
9. [Food and Agriculture](#)
10. [The Environment](#)



The screenshot shows a video player interface. The video title is "Forecasting with International Futures: Economics". The video player includes a play button, a progress bar showing 0:00 / 31:00, and a volume icon. The video content features the same logo as the website and the text "Forecasting with International Futures: Economics".

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JOSEF KORBEL SCHOOL OF INTERNATIONAL STUDIES

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## Economics

05.01 Economics

# Forecasting with International Futures: Economics

0:00 / 31:00

# Publications are a great resource!



The screenshot shows a web browser window with the URL [pardee.du.edu](http://pardee.du.edu). The page header features the logo of the Frederick S. Pardee Center for International Futures, part of the Josef Korbel School of International Studies. Navigation links include 'Use IFs Online', 'Download IFs', 'Research and Projects', 'About', 'Media', and 'Contact Us'. A search bar is also present.

The main content area is titled 'Patterns of Potential Human Progress' and includes tabs for 'View', 'Edit', 'Outline', 'Track', and 'Devel'. Below the tabs, five book covers are displayed:

- REDUCING GLOBAL POVERTY PATTERNS OF POTENTIAL HUMAN PROGRESS VOLUME 1**
- ADVANCING GLOBAL EDUCATION PATTERNS OF POTENTIAL HUMAN PROGRESS VOLUME 2**
- IMPROVING GLOBAL HEALTH PATTERNS OF POTENTIAL HUMAN PROGRESS VOLUME 3**
- BUILDING GLOBAL INFRASTRUCTURE PATTERNS OF POTENTIAL HUMAN PROGRESS VOLUME 4**
- STRENGTHENING GOVERNANCE GLOBALLY PATTERNS OF POTENTIAL HUMAN PROGRESS VOLUME 5**

A sidebar on the left lists various categories: PPHP SERIES, BOOKS AND BOOK CHAPTERS, JOURNAL ARTICLES, AFRICAN FUTURES, OTHER PARDEE PUBLICATIONS, THIRD PARTY PUBLICATIONS, MODEL DOCUMENTATION, and WORKING PAPERS. It also includes a list of annual reviews from 2015 to 2019.



**REDUCING GLOBAL POVERTY**  
**PATTERNS OF POTENTIAL HUMAN PROGRESS**  
**VOLUME 1**

The cover features a stylized illustration of human figures in various colors (yellow, orange, blue, red) standing on a green hill under a blue sky. The figures are depicted in a way that suggests movement and progress.

**Barry B. Hughes**  
**Mohammad T. Irfan**  
**Haider Khan**  
**Krishna B. Kumar**  
**Dale S. Rothman**  
**José R. Solórzano**

**PI**  
**PARDEE CENTER**  
for International Futures  
**OXFORD**  
UNIVERSITY PRESS

# IFs Help System

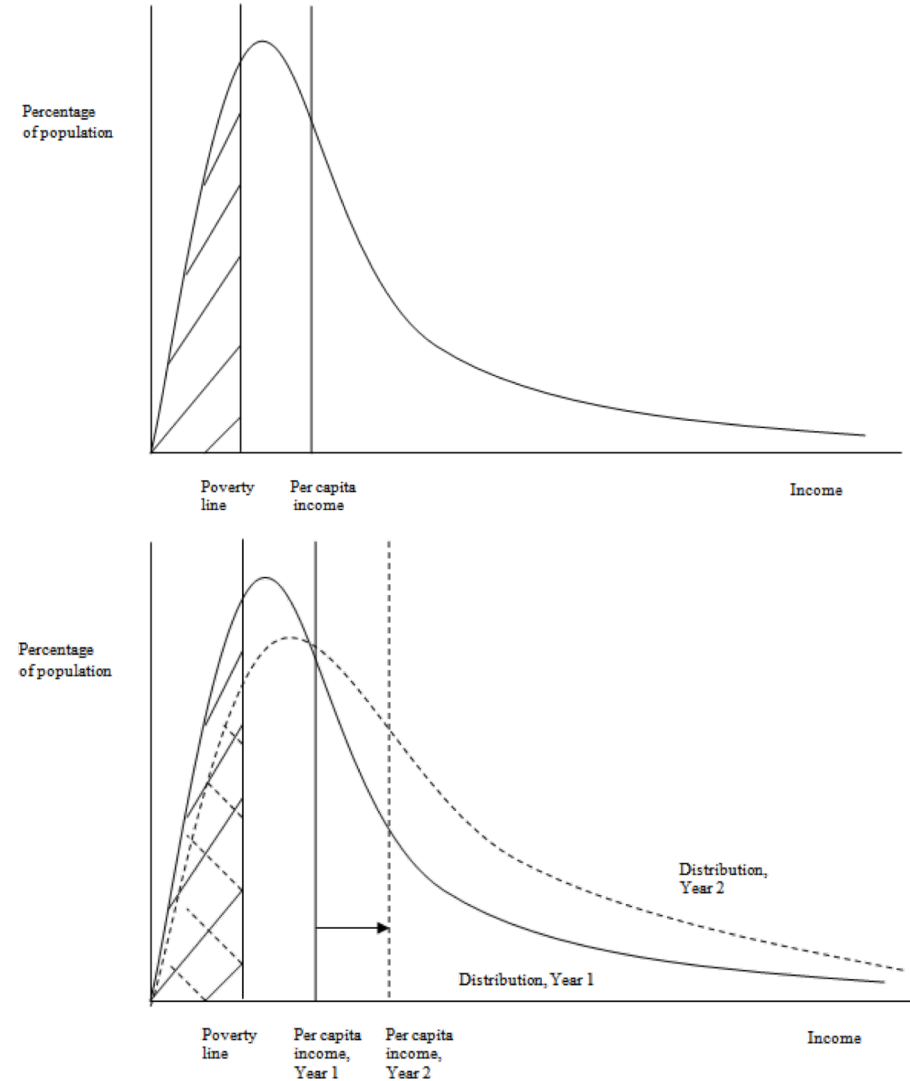
## Poverty

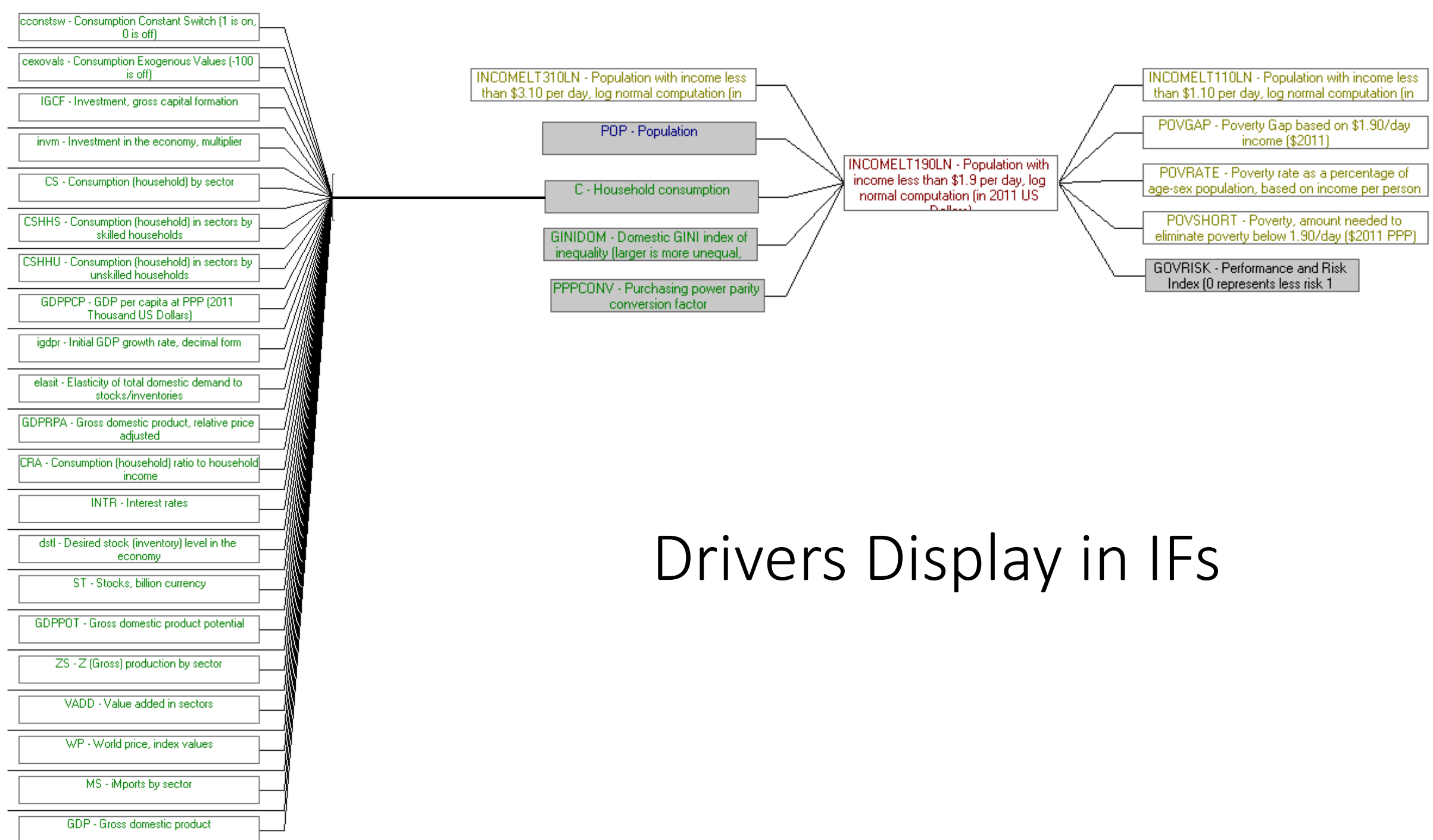
The IFs project has given special attention to the forecasting of poverty, most notably in the first volume of the project's Patterns of Potential Human Progress series, titled Reducing Global Poverty (Hughes et al. 2009). We therefore want to document the approach taken within IFs to that forecasting. We begin with the conceptual foundations and turn to the specific forecasting formulations.

- [The Proximate Drivers of Poverty](#)
- [Lognormal Analysis of Change in Poverty: IFs Formulations](#)
- [Cross-sectional Analysis of Change in Poverty](#)

### The Proximate Drivers of Poverty

Knowledge of two drivers allows quite accurate calculation of the portion of a population living at or below any specified poverty level: the average income of the population and the distribution of that income. Once the rate of poverty is known, it requires only knowledge of a third driver, population size, to know also the number of people living below that poverty level. In dynamic societies there are, of course, a huge number of deeper or more distal drivers that affect these proximate drivers (literally anything that affects economic growth, the nature of income distribution, and the population size). The figure below shows this conceptual understanding of poverty, and indicates that the IFs system formalizes that understanding by calculating poverty from the three proximate drivers and also calculates those proximate drivers from the much larger forecasting system (the economic, population, and other models of IFs). Moreover, the IFs system makes available large numbers of intervention points for developing alternative scenarios around poverty futures.





# Drivers Display in IFs

# Scenarios

## Scenario Development and Change: Working

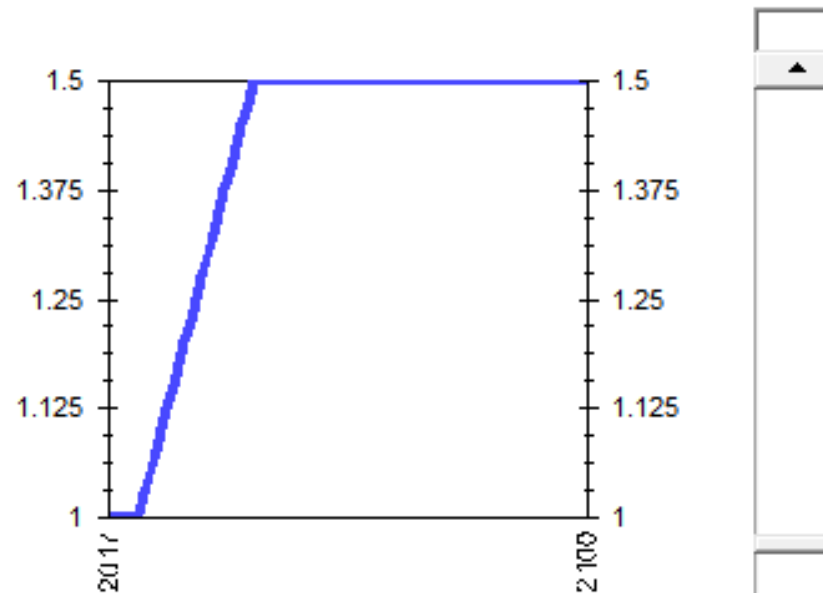
[Continue](#) [Scenario Files](#) [Add Scenario Components](#) [Run Scenario](#) [Delete Selection](#) [Using Countries](#) [Annotate Scenario](#) [Scenario ReRun options](#) [Parameter Search](#)

- [-] Society/Human Needs - Networking
  - [-] ICT Broadband multiplier
    - World**
  - [-] ICT Mobile Broadband multiplier
    - World
- ... Society/Human Needs - Nutrition
- ... Society/Human Needs - Infrastructure Target
- ... Society/Human Needs - Education Target
- [-] Relationship Parameters
  - ... Agriculture/Food - Calories
  - ... Agriculture/Food - Demand
  - ... Agriculture/Food - Investment
  - ... Agriculture/Food - Linkages
  - ... Agriculture/Food - Livestock
  - ... Agriculture/Food - Prices
  - [-] Agriculture/Food - Nutrition/Starvation
    - [-] Switch to turn on (1=on) elimination of malnutrition
      - World
  - ... Agriculture/Food - Trade
  - ... Agriculture/Food - Yields
  - ... Demographic - Fertility
  - ... Demographic - Migration
  - ... Demographic - Mortality
  - ... Demographic - Education

**Basic Options**

High  Low  Base

**Time Shift**  
Years:

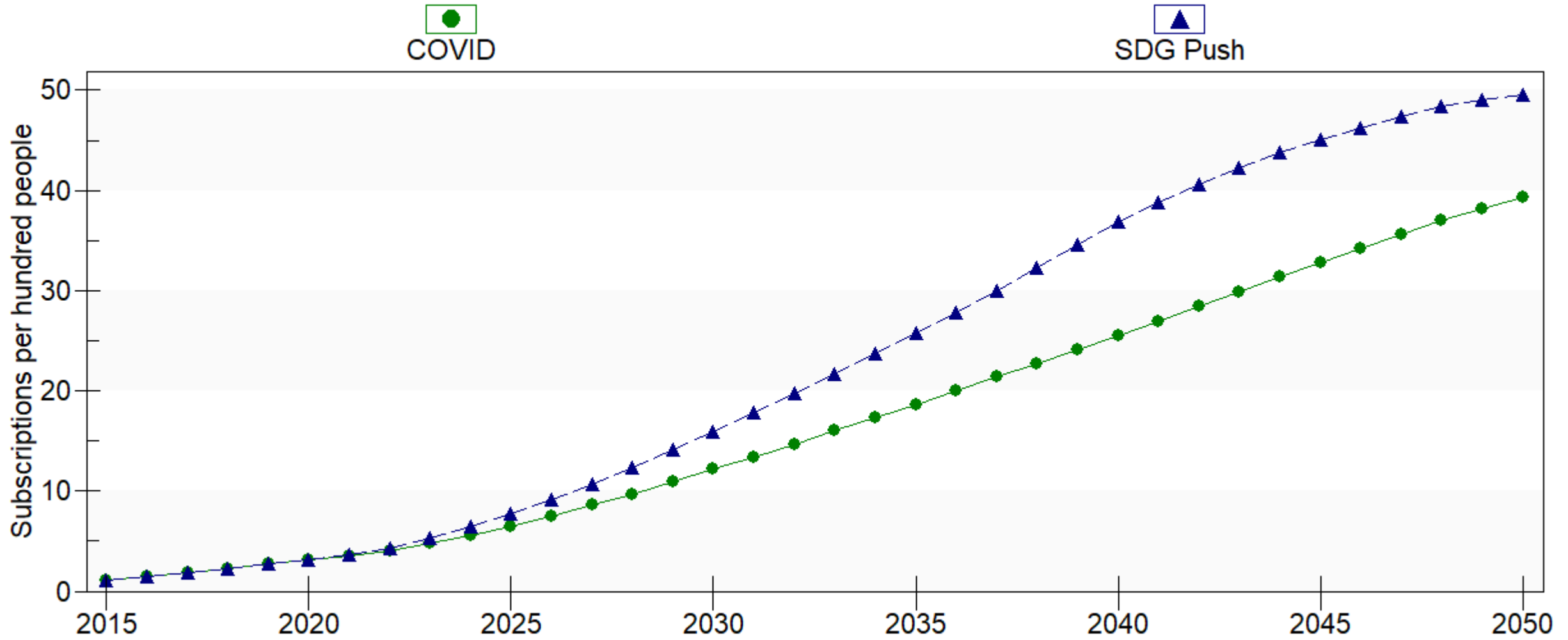


Fully Customized

**Variable Description**  
ictbroadm - ICT Broadband multiplier - Mul Base 1

# Scenarios

## ICT, Fixed Broadband, Low-Income Countries



Let's get into the model!

# Thank you for your attention

See you in the online Discussion Rooms!

<https://www.sparkblue.org/IFs>

