



BRIDGING THE GAP

USING SWIFT TO RAPIDLY MONITOR POVERTY & WELFARE IN A TIME OF CRISES

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November 16, 2022

SWIFT FOR FILLING DATA GAPS AND RESTORING COMPARABILITY

In low-income countries and fragile states, official poverty data are available every seven years on average.

Even if a household survey was collected, the new data might not be comparable to the previous round.

How can we better assess poverty in times of crisis?

SWIFT method has evolved and proven to be very useful to address some of these gaps.

Even going beyond this example, SWIFT has been proven to be useful in collecting policy-relevant data to assess distributional impacts.

(I) OBTAINING POVERTY TREND WHEN DATA ARE NOT COMPARABLE

SERIES POVERTY DATA
(\$1.90, 2011 PPPS) IN
NIGERIA

- **Problem:** Nigeria has only two data points: 2009 & 2018
 - Long interval with incomparability
- **Solution:** SWIFT Plus approach was adapted to estimate a more frequent poverty series (2010, 2012, 2015) comparable to the 2018 poverty estimate
 - **Backwards imputation** was used – model swere trained using the 2018 data to impute past poverty rates
 - The 2009 poverty estimate was dropped from the global database
 - See more details in Schoch, Lain, and Vishwanath (2022)

Approach	2009	'10	'11	'12	'13	'14	'15	'16	'17	'18
Actuals	56.4									39.1
Actual & Training (2018), Imputed (2010, 12, 15)	56.4	43.5		42.5			40.8			39.1

(II) ADDING NEW POVERTY DATA POINTS

2018 NATIONAL POVERTY ESTIMATE IN DEMOCRATIC REPUBLIC OF CONGO (DRC)

- **Problem**: DRC had not had a national poverty rate since 2012 – data deprivation of 10 years!
- **Solution**: Using a SWIFT Plus approach, DRC Poverty Assessment projected poverty rates for 2018 using MICS
 - **Forward imputation** was used – models were trained using the 2011 data to predict a future poverty rate (2018)
 - The team plans to include the 2018 international poverty rate in the global poverty monitoring database for the Spring 2023 update

Approach	2011	'12	'13	'14	'15	'16	'17	'18
Actual (2011)	63.9							
Actual & Training (2011), Imputed (2018)	63.9							59.6

(III) ESTIMATING POVERTY IN TIMES OF CRISIS

2019 POVERTY RATE ESTIMATION IN ZIMBABWE

- **Problem:** Zimbabwe went through a huge economic crisis in 2019
 - The World Bank Zimbabwe team and Zimstat wanted to assess the impact of the crisis on poverty
- **Solution:** Using a SWIFT 2.0 approach, the 2019 poverty rate was estimated using a newly collected survey
 - **Concurrent imputations (SWIFT 2.0)** was used – A small subsample of consumption data was collected, models were trained using the subsample, and household expenditures were imputed into the remaining dataset
 - Benefits of SWIFT 2.0 are no concerns over model stability, since models were trained from a subsample of the same survey

Approach	2017	2018	2019
Actual (2017)	53		
Actual (2017) & Imputed (2019)	53		57.3

All poverty projections using SWIFT were validated by other supplementary evidence, such as:

- Poverty projections using GDP or other data in the national accounts
- Consistency with non-monetary indicators and poverty correlates
- Ground truthing with National Statistics Office or local academia

Good examples – Nigeria (Schoch, Lain, and Vishwanath, 2022), Mongolia (Uochi and Kim, 2022)

IT IS ALWAYS A
GOOD IDEA TO
VALIDATE THE
RESULTS

TO SUMMARIZE...

- The frequency of poverty data can be limited, especially in low-income countries and fragile states
- Furthermore, comparability of consumption or income data over time is lost when questionnaires are improved or survey logistics are changed
- SWIFT methodologies have been adopted to fill missing data gaps in official national poverty estimates in 18 countries so far, with increasing interest from other countries
- It is important to validate SWIFT results using macro data to see trends of non-monetary poverty correlates and food security, as well as ground-truthing with NSOs and local academia