How do targeting methods perform in practice?

Comparing nine programs in the Sahel

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Why?

- Rich literature on targeting. Large focus on:
  - Case studies (either focus on one method or one country)
  - Simulated methods (usually on PMT, categorical)
  - Consumption

- But several questions remain. Less evidence on:
  - Systematic comparisons (beyond case studies)
  - Food insecurity
  - In ultra-poor settings

- Even aspects we think we know, people disagree
  - Partly a result of differences in how to assess targeting

- Heated policy debate on:
  - Targeting methods to use
  - Whether to target or not in the first place

Objectives

- We contribute to the policy and academic discussion in two related ways:

A. Provide a framework to assess targeting performance: a harmonized methodology for policy discussion

B. Assess how PMT and CBT methods compare in practice across countries based on different welfare objectives
  - Evaluate 9 actual CBT and PMT targeting schemes across 6 countries in the Sahel based on the harmonized methodology
  - + compare with simulated methods = lotteries, "universal", geographic
  - Look at performance and costs

How to assess targeting performance?

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Efficiency: how well can the method identify the population of interest? 4 important parameters:

1. Welfare metric:
   - Consumption
   - Food insecurity (important in ultra-poor contexts)
2. Eligibility thresholds. In contexts with largely insufficient budgets, how to prioritize?
   - Poorest of the poor?
   - Anyone below poverty line? (other consideration more important)
3. Program coverage rates
   - Especially important when making comparisons
4. Distribution sensitive performance measures (beyond targeting error rates)

Each of these aspects can make an important difference in targeting performance

How to assess targeting performance?

*Beyond efficiency, and while not the focus of our paper, it is **important to consider other objectives** such as legitimacy / social cohesion, spillovers on non-beneficiaries, impacts of the targeting choice on final program outcomes, speed and easiness.*

Existing evidence

Existing evidence: efficiency

- Glass half full: PMT can be relatively efficient at reaching the poor, also compared to CBT, even if difference is not large in some cases (Premand and Schnitzer 2020, Del Ninno & Mills, 2015, and others)

- Glass half empty: 'A Poor Means Test?' (Brown, Ravallion, van de Walle 2018). And others such as Kidd et al., 2017

- Two main cross-country reviews: key performance determinant is implementation (Coady, Grosh, & Hoddinott, 2004; Devereux et al., 2017)
  - Secondary sources

- On food insecurity: in some cases CBT performs better (Schnitzer 2019)

Existing evidence: other considerations

- **Legitimacy, social cohesion**
  - CBT can result in higher or lower legitimacy relative to PMT depending on context (Indonesia in Alatas et al., 2012 versus Niger in Premand and Schnitzer 2020).
  - For CBT, manipulation can happen depending on context (Premand and Schnitzer 2020, Pan & Christiaensen, 2012; Alatas et al., 2019; Stoeffler et al., 2020; Basuro et al., 2020)
  - Information asymmetries in CBT (Premand and Schnitzer 2020)
  - PMT can result in significant community tensions in some highly poor and homogeneous areas (Chad)

- **Impacts**
  - PMT can result in higher impacts than CBT along some dimensions (Premand and Schnitzer 2020)
  - Costs: limited evidence but so far shown to be relatively small

- In sum:
  1. Disagreement on how to assess targeting & interpret the evidence
  2. Limited fully comparable evidence from actual programs.

- We address both issues: first-hand analysis of implemented programs across countries; include CBT, develop & use harmonized framework

Sahel context

Sahel context

- Region has among the worst development outcomes globally:
  - Among highest poverty levels (ranging from 24 to 50%)
  - Recurrent economic shocks and food crises becoming even more frequent
  - Large flows of refugees and IDPs
  - Among the worst human development outcomes (4 among bottom 10 HDI)
- Budgets largely insufficient relative to needs
- Informality, low administrative capacity, security issues
- Research evidence especially scarce

Sahel context – most common approaches

- Development and humanitarian actors trying to work together under an 'adaptive SP system'

- Geographical targeting (usually used in combination with the below)

- Proxy Means Test (PMT)

- Community Based Targeting (CBT)
  - Household Economic Analysis (often used by humanitarian agencies addressing food crises; score-based or community-led)
  - Several other variations

We analyze PMT and CBT in practice (post geo targeting) + simulated alternatives

Our methodology

- Analyze 9 implemented programs: PMT and CBT targeting

- Compare to simulated alternatives: random, geographic, universal

- Conceptual framework to measurement
  - Welfare metric:
    - Consumption
    - Food insecurity
  - Eligibility and program coverage thresholds.
    - Actual programs
    - Simulated ones: including poorest of the poor (bottom 35%), and poverty line
  - Distribution sensitive performance measures
    - Error rates (1/0)
    - Distribution sensitive measures (simulated effect on poverty gap and severity)
- Estimate costs in harmonized way

Data

Programs & Data

	Burkina Faso 1	Burkina Faso 2	Cameroon	Chad	Mali	Niger 1	Niger 2	Senegal 1	Senegal 2
Program	CT (SSN)	Health card	CT (pilot SSN)	CT (pilot)	CT (Jigisé mèjiri)	CT (SSN phase 1)	CT (SSN phase 2)	National registry + NGO CT	National Registry
PMT	Impl.	Tested	Impl.	Impl.	Impl.	Impl.	Impl.	Tested	Tested
CBT	HEA	For indigents	CBT		HEA		CBT	HEA & CBT	HEA
CBT-selection rate	61%	21%	68%		67%		40%	8% & 27%	42%
Food security	FCS	HDDS	HDDS	FCS	FCS	FCS	FCS	FCS	FCS
Sample	992	2636	1723	22,194	1585	4330	3829	1759	1759

- Pc consumption for all surveys except Chad
- No data in Mauritania
- All these after geographic targeting

# National and Program level poverty
(1.9 USD PPP)
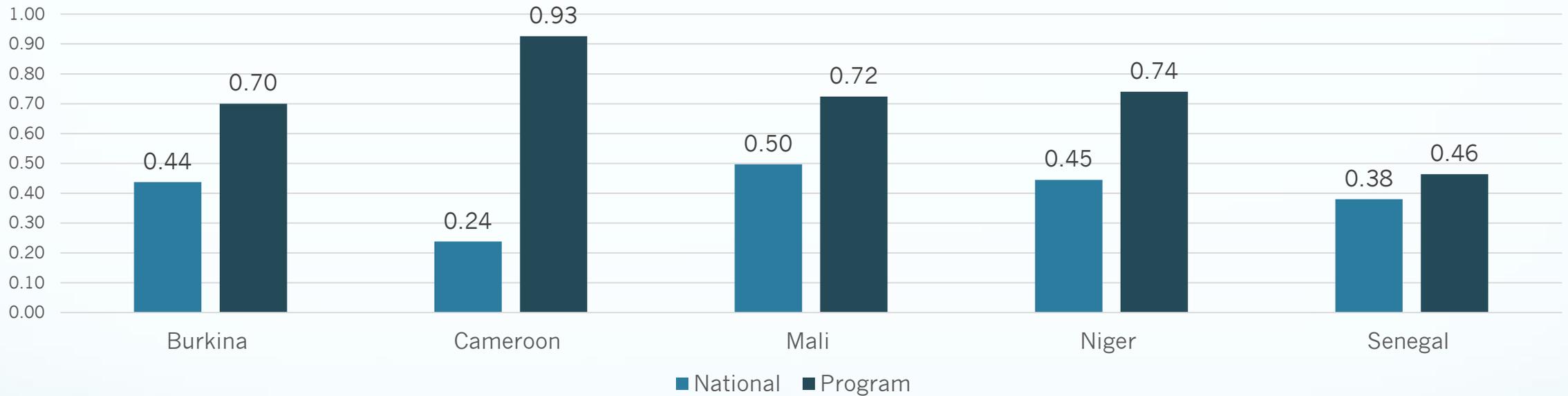
Note: *Poverty rates not fully comparable : geographic, time, and computational differences in consumption aggregates*

- Program areas are very poor and household-level targeting happens within these areas

Results:
How well can each method identify the 'poor'?

PMT outperforms CBT in every scheme in reaching the poorest

The median PMT allocates 20% more resources to the poorest than a random allocation compared to 5% for CBT (*based on actual program thresholds*)
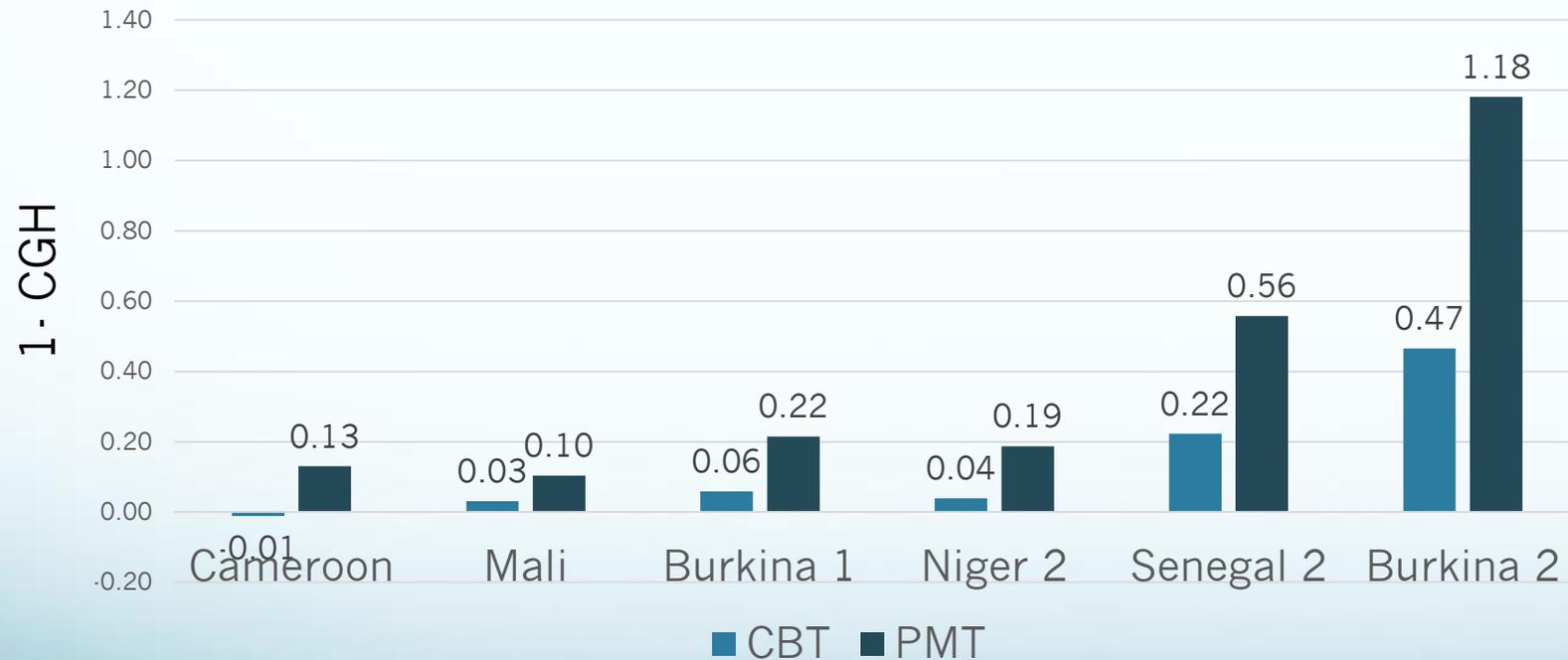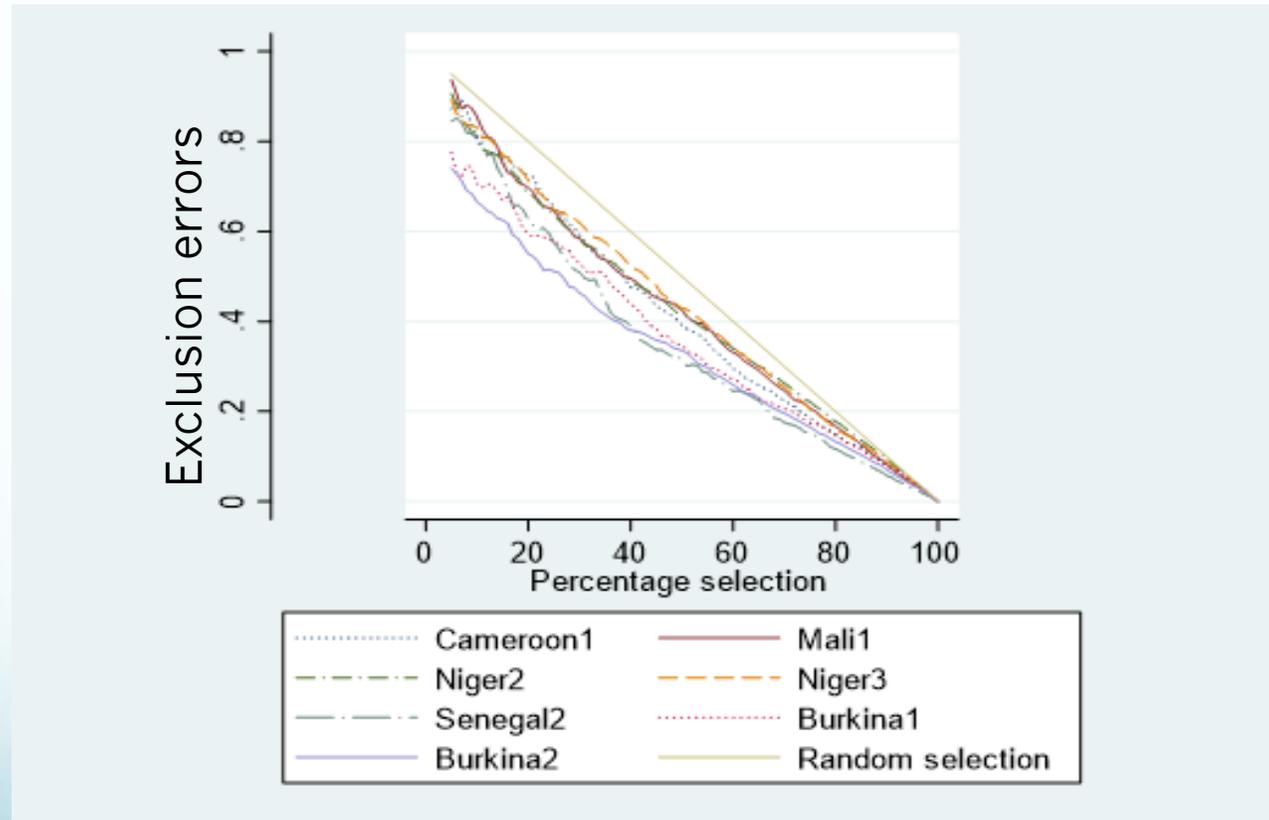

CGH: additional resources going to the poorest, relative to a random allocation

Mind the coverage

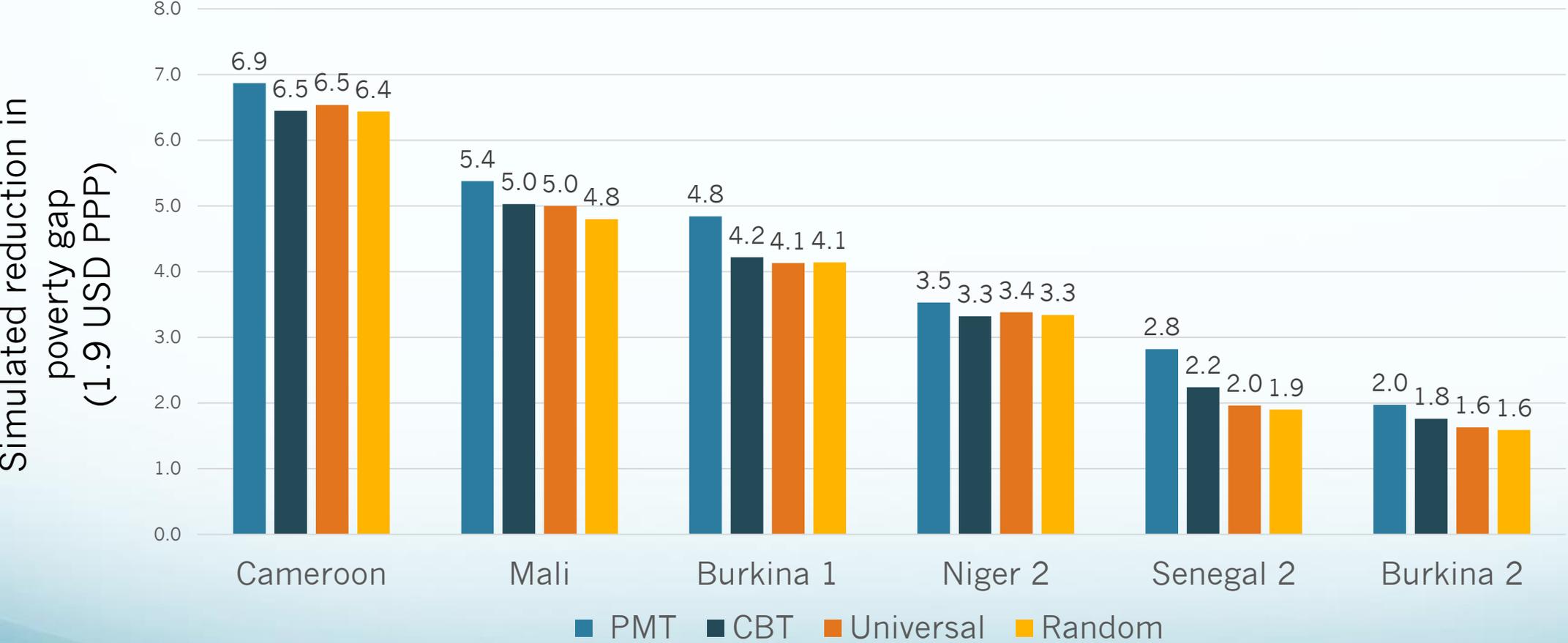**Performance of PMT in reaching the poor depending on program coverage**

Note: eligibility threshold is set equal to program coverage (percentage selection)
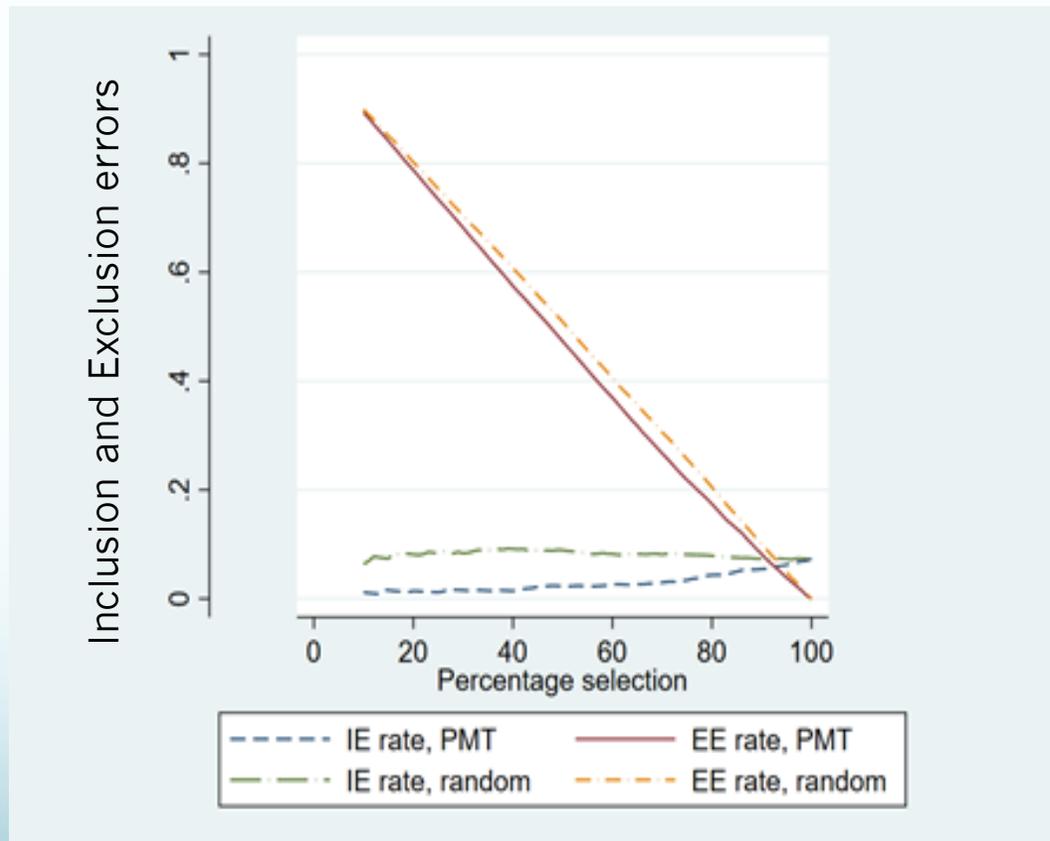
When using distribution sensitive **poverty** measures differences in performance across methods are small

Note: A transfer of 15,000 CFA per capita is simulated. Actual program thresholds are used.

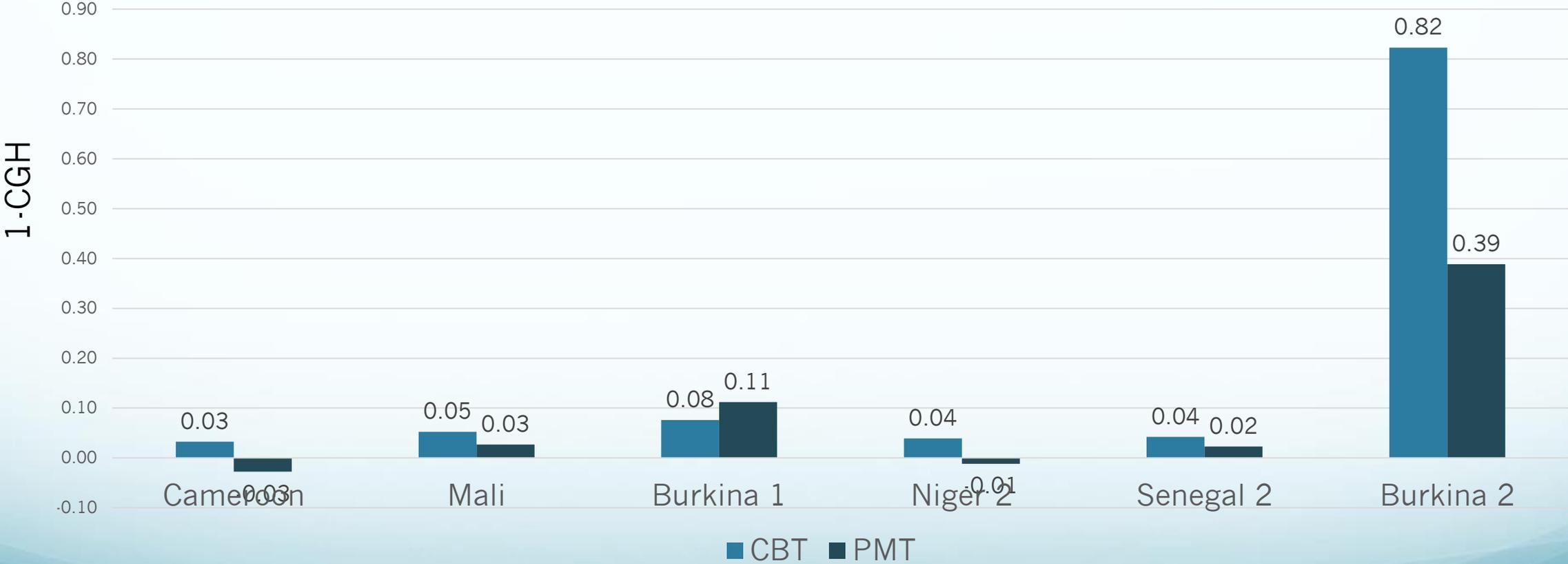# When using poverty lines (1.9 USD PPP) performance differences between methods are also small

Cameroon

Errors based on consumption and poverty lines (1.9 USD PPP).

How well can the methods identify the food insecure?

CBT and PMT are usually not effectively identifying the food insecure

Bar chart with y-axis labeled "1-CGH" ranging from -0.10 to 0.90. Categories on x-axis: Cameroon, Mali, Burkina 1, Niger 2, Senegal 2, Burkina 2. Legend: CBT, PMT.

- Cameroon: CBT 0.03, PMT -0.03
- Mali: CBT 0.05, PMT 0.03
- Burkina 1: CBT 0.08, PMT 0.11
- Niger 2: CBT 0.04, PMT -0.01
- Senegal 2: CBT 0.04, PMT 0.02
- Burkina 2: CBT 0.82, PMT 0.39

How do costs compare?

Costs are small compared to program budgets

Country	Method	Cost per screened household	Cost per beneficiary	Cost (as % of total transfer)
Niger	PMT	$6.8	$17	5.5%
Niger	CBT	$5.4	$13.5	4.3%
Chad (rural)	PMT	$9.5	$23.8	3.9%
Chad (urban)	Self-target+PMT	$0.7	$2.3	1.4%
Burkina	PMT	$5.7	$9.57	1.5%
Burkina	Self-target+PMT	$2.1	$1.56	0.4%
Burkina	HEA	$5.6	$38.8	n.a.
Senegal	RNU (CBT+)	$3.2	$13.8	n.a.
Burkina	PMT	$7.2	n.a.	n.a.

In summary

- Important to clearly define objectives

- Who are the methods reaching? Post geographical targeting
  - PMT consistently shows significantly better performance than alternatives at reaching the **poorest.** Although not to a large extent if distribution sensitive measures are used.
  - No *household-level* method makes a large difference at reaching the **food insecure.**

- Budgets are largely insufficient, and these play the most important role in targeting performance

- Costs: no big differences across options

- Regardless of method, unlikely to 'waste' money on the (few) non-poor after conducting some geographical targeting. So considerations beyond 'who we reach' may play a relatively important role

Areas for discussion

Beyond *who* we reach...

1. Legitimacy, social cohesion, appropriation
2. Impacts (although equity concern)

- Limited evidence from the Sahel (and globally):
  - PMT more legitimate and has greater final program impacts along some dimensions than CBT in Niger
  - Household-level targeting leading to significant community tensions in Chad
  - Spillovers: unclear
  - No existing comparison with "universal" transfers (*à la* GiveDirectly)

CBT has little advantages?

- No higher efficiency and legitimacy in the Sahel
  - Other issues: manipulation, information asymmetries, lack of clear criteria, etc.
  - However, some arguments for CBT difficult to test (involvement of local populations, empowerment, local preferences, etc.)

- Yet CBT selects households **consistently different**
  - More female headed
  - Older
  - Smaller household size than PMT (and often small)
  - House conditions matter, but not education

Questions remaining

- How simple geographical targeting approaches perform in ultra-poor contexts?
  - Potential benefits: legitimacy, social cohesion, costs (not only related to targeting, but logistics)

- Generability beyond utlra-poor settings? (1) targeting works better in more unequal contexts? (2) more feasible / better administrative capacities?

- Lotteries (CAR, DRC, Cote d'Ivoire) for public works

- How to select refugees, IDPs and host communities?
  - Data limitations for PMT (national surveys often not representative of these populations)
  - Consumption basket and production function very specific
  - Feasibility issue for CBT

- How to timely identify households affected by shocks?
  - Floods
  - Droughts (slow onset)
  - Covid

Future analyses

- More on geographic targeting (food security)

- Exploiting the CBT ranking in Niger (varying threshold)

- Additional datasets (Senegal; others?)

- Comparison with categorical targeting

- Etc.

Thank you