

Food and Agriculture Organization of the United Nations

Social Protection

From Protection to Production

# Impact evaluation of SCT in SSA:

## What is the evidence on productive/economic activities and labor supply?

Silvio Daidone

**Master Course in Public Policy & Human Development**

Maastricht, March 28, 2017

# Why do livelihoods matter for social protection?

- Most beneficiaries in Sub Saharan Africa are rural, engaged in agriculture and work for themselves
  - Zimbabwe: 88% produce crops; 75% have livestock
  - Kenya: 80% produce crops; 75% have livestock
  - Lesotho: 80% produce crops; 60% have livestock
  - Zambia: 80% produce crops; 50% have livestock
- Most grow local staples, using traditional technology and low levels of modern inputs
  - Most production consumed on farm
- Most have low levels of productive assets
  - .5 -2 hectares of agricultural land, a few animals, basic agricultural tools, few years of education
- Engaged on farm, non farm business, casual wage labour (ganyu/maricho)
- Large share of children work on the family farm
  - 50% in Zambia, 30% in Lesotho

# Reaching social goals requires sustainable livelihoods

- Work in context of multiple market failures in credit, insurance, etc
  - Constrain economic decisions in investment, production, labor allocation, risk taking
    - Short time horizon—imperative of meeting immediate needs
    - Lack of liquidity, difficult to manage risk
  - Decisions about production and consumption linked
- "non separability" of production and consumption means that social objectives are conditioned by livelihoods—and vice versa
  - Labor needs (adults and children), including domestic chores
  - Investment in schooling and health
  - Food consumption, dietary diversity and nutrition
  - Intra household decision making
    - Dynamic between men and women, old and young
- Ultimately, reaching social goals requires sustainable livelihoods

## Policy makers are concerned about

# Dependency

# Graduation

# Social cash transfers targeted to poorest of the poor can have productive impacts

- Theory behind productive impacts of cash transfers always implies market failures
- Long term effects of improved human capital
  - Nutritional and health status; educational attainment
  - Labor productivity and employability
- Transfers can relax some of constraints brought on by market failure (lack of access to credit, insurance)
  - Helping households manage risk
  - Providing households with liquidity
- Transfers can reduce burden on social networks and informal insurance mechanisms
- Infusion of cash can lead to multiplier effects in local village economy

# From Protection to Production

- Provide insight into how cash transfers can contribute to sustainable poverty reduction and economic growth at household and community levels
- Key component of the Transfer Project
- Implemented by FAO and UNICEF in conjunction with partner governments
- Added value to impact evaluations of government run social cash transfer programs in seven countries
- PtoP: Initial funding from DFID (2011-2014), EU and FAO
- Impact evaluations: DFID, government, EU, 3i

# Countries and programmes

| Country | Programme name | Start year |
|---|---|---|
| Ethiopia | Tigray Social Cash Transfer Pilot Programme (SCTPP) | 2011 |
| Ghana | Livelihood Empowerment Against Poverty (LEAP) | 2008 |
| Kenya | Cash Transfer for Orphans and Vulnerable Children (CT-OVC) | 2004 |
| Lesotho | Child Grants Programme (CGP) | 2010 |
| Malawi | Social Cash Transfer (SCT) | 2006 |
| Zambia | CG model (CG) of the Social Cash Transfer | 2010 |
| Zimbabwe | Harmonized Social Cash Transfer (HSCT) | 2011 |

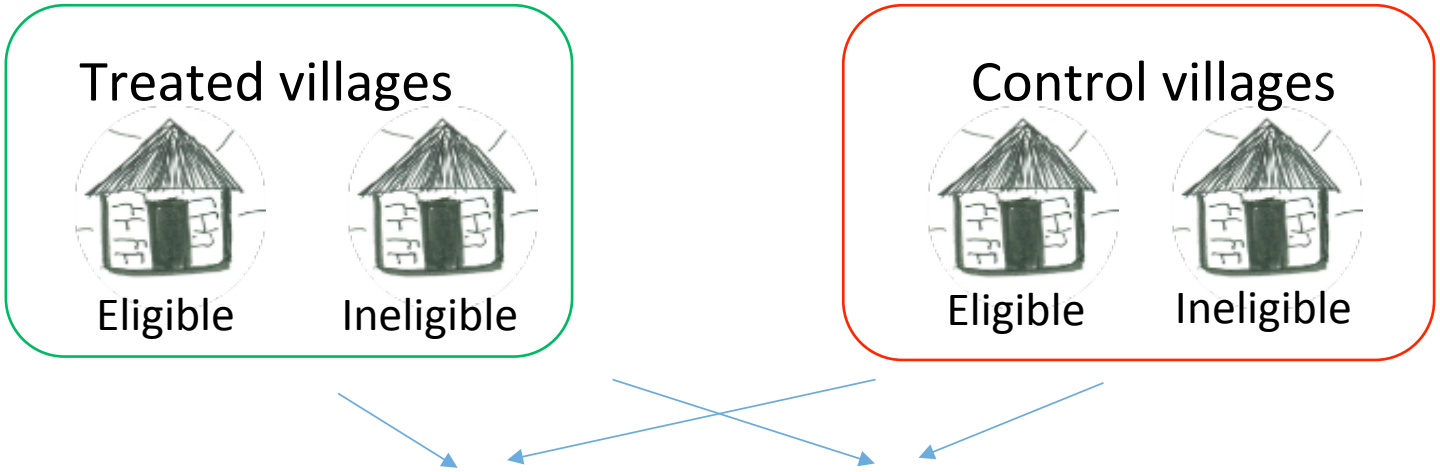
Evaluation of existing Government programmes, not small experiments!

# Mixed methods

A set of integrated tools used to evaluate the seven CTs

- Micro-econometric approach: ex-post evaluation of the programmes, comparing a sample of beneficiary households (the treatment group) vis-à-vis a sample of similar households eligible for the programme but not receiving it (the control/comparison group)
- Qualitative analysis: key informant interviews, focused group discussions, in-depth households case studies to explore the impact of CTs on household economic decision-making and the local economy
- General equilibrium models: Local Economy Wide Impact Evaluation (LEWIE) to assess the spillovers and the income/ production multipliers of the CTs on the local economies

# More on the quant analysis…




Data analysis

- Baseline survey
  - Groups comparison (balance)
  - Simulation of impacts
- Follow-up survey(s)
  - Estimate of true impacts
  - Validation and update of simulation models

Food and Agriculture Organization of the United Nations

# Evaluation design

THE TRANSFER PROJECT

| Country | Design | Level of randomization / matching | Ineligible sample | Baseline | Follow-up |
|---|---|---|---|---|---|
| Ethiopia | Non-experimental (PSM and IPW) | Households within village | Baseline only | 2011 | 2013 |
| Ghana | Non-experimental (PSM and IPW) | Household and region | No | 2010 | 2012 |
| Kenya | Experimental with PSM and IPW | Location | No | 2007 | 2009-2011 |
| Lesotho | Experimental | Electoral division | Yes | 2011 | 2013 |
| Malawi | Experimental | Traditional authority | Baseline only | 2013 | 2014 |
| Zambia | Experimental | Community Welfare Assistance Committee (CWAC) | No | 2010 | 2012 |
| Zimbabwe | Quasi-experimental (matched case-control) | Matched case-control | Baseline only | 2013 | 2014 |

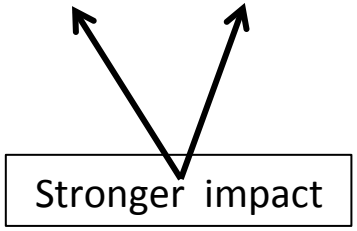
Food and Agriculture Organization of the United Nations

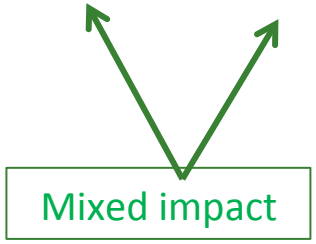
# Impacts on productive activities

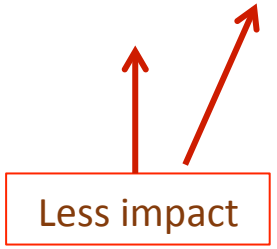
THE TRANSFER PROJECT

| | Zambia CGP | Malawi SCTP | Zimbabwe HSCT | Lesotho CGP | Kenya CT-OVC | Ethiopia SCTPP | Ghana LEAP |
|---|---|---|---|---|---|---|---|
| Agricultural inputs | ++ | + | NS | + | - | -/+ | + |
| Agricultural tools | ++ | ++ | + (5) | NS | NS | + | NS |
| Agricultural production | ++ (1) | ++ (2) | ++ (6) | + | NS | ++ | NS |
| Agricultural sales | ++ | + | NS | NS | | | - |
| Home consumption of ag production | NS | ++ (3) | NS | | + | | NS |
| Livestock ownership | All types | All types | Most types | Pigs | Small ruminants | - | NS |
| Non-farm enterprise | ++ | NS (4) | ++ | NS | + FHH/ - MHH | - | NS |

(1) value of ag production
(2) NS at midline, strong at endline
(3) animal products
(4) varies by type of business
(5) smaller households
(6) switching crops



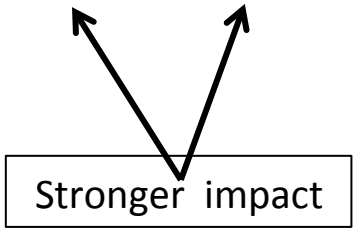



# Impacts on productive activities



| | Zambia CGP | Malawi SCTP | | | | | |
|---|---|---|---|---|---|---|---|
| Agricultural inputs | ++ | + | | | | | |
| Agricultural tools | ++ | ++ | | | | | |
| Agricultural production | ++ (1) | ++ (2) | | | | | |
| Agricultural sales | ++ | + | | | | | |
| Home consumption of ag production | NS | ++ (3) | | | | | |
| Livestock ownership | All types | All types | | | | | |
| Non-farm enterprise | ++ | NS (4) | | | | | |

(1) value of ag production
(2) NS at midline, strong at endline
(3) animal products
(4) varies by type of business
(5) smaller households
(6) switching crops



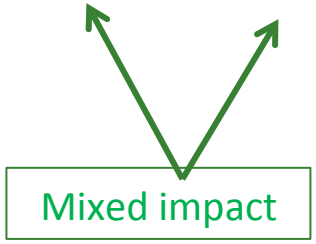
Food and Agriculture Organization of the United Nations

THE TRANSFER PROJECT

# Impacts on productive activities

| | | | Zimbabwe HSCT | Lesotho CGP | Kenya CT-OVC | | |
|---|---|---|---|---|---|---|---|
| Agricultural inputs | | | NS | + | - | | |
| Agricultural tools | | | + (5) | NS | NS | | |
| Agricultural production | | | ++ (6) | + | NS | | |
| Agricultural sales | | | NS | NS | | | |
| Home consumption of ag production | | | NS | | + | | |
| Livestock ownership | | | Most types | Pigs | Small ruminants | | |
| Non-farm enterprise | | | ++ | NS | + FHH/ - MHH | | |

(1) value of ag production
(2) NS at midline, strong at endline
(3) animal products
(4) varies by type of business
(5) smaller households
(6) switching crops



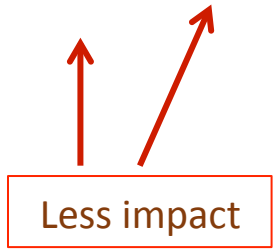
Food and Agriculture Organization of the United Nations

THE TRANSFER PROJECT

# Impacts on productive activities

| | | | | | | Ethiopia SCTPP | Ghana LEAP |
|---|---|---|---|---|---|---|---|
| Agricultural inputs | | | | | | -/+ | + |
| Agricultural tools | | | | | | + | NS |
| Agricultural production | | | | | | ++ | NS |
| Agricultural sales | | | | | | | - |
| Home consumption of ag production | | | | | | | NS |
| Livestock ownership | | | | | | - | NS |
| Non-farm enterprise | | | | | | - | NS |

(1) value of ag production
(2) NS at midline, strong at endline
(3) animal products
(4) varies by type of business
(5) smaller households
(6) switching crops



Food and Agriculture Organization of the United Nations

# Impacts on productive activities

THE TRANSFER PROJECT

| | Zambia CGP | Malawi SCTP | Zimbabwe HSCT | Lesotho CGP | Kenya CT-OVC | Ethiopia SCTPP | Ghana LEAP |
|---|---|---|---|---|---|---|---|
| Agricultural inputs | ++ | + | NS | + | - | -/+ | + |
| Agricultural tools | ++ | ++ | + (5) | NS | NS | + | NS |
| Agricultural production | ++ (1) | ++ (2) | ++ (6) | + | NS | ++ | NS |
| Agricultural sales | ++ | + | NS | NS | | | - |
| Home consumption of ag production | NS | ++ (3) | NS | | + | | NS |
| Livestock ownership | All types | All types | Most types | Pigs | Small ruminants | - | NS |
| Non-farm enterprise | ++ | NS (4) | ++ | NS | + FHH/ - MHH | - | NS |

(1) value of ag production
(2) NS at midline, strong at endline
(3) animal products
(4) varies by type of business
(5) smaller households
(6) switching crops

Many stories told in the qualitative fieldwork:
-Generally, type of agricultural spending context- and household-specific
-land-holding beneficiaries being able to hire laborers
-Increasing spending on ag inputs
-Investment in small livestock

# Reduction in casual ag labor, but no general work disincentive

"I used to be a slave to ganyu but now I'm a bit free."
-elderly beneficiary, Malawi

| | Zambia CGP | Malawi SCTP | Zimbabwe HSCT | Lesotho CGP | Kenya CT-OVC | Ethiopia SCTPP | Ghana LEAP |
|---|---|---|---|---|---|---|---|
| Ag/casual wage labor | -- | -- | NS | -- | -- | | NS |
| Family farm | ++ | NS (1) | -- | NS (1) | NS | | + |
| Non-farm business | ++ | NS (2) | NS | NS | NS | -- | NS |
| Non ag wage labor | ++ | +/NS (3) | NS | NS | NS | - | NS |

(1) varies by age and gender
(2) varies by type of business
(3) NS at midline, positive at endline

Shift from casual wage labour to family business—consistently reported in qualitative fieldwork

# Reduction of children's work, especially on farm

| | Wage/casual labor | Family farm |
|---|---|---|
| Zambia CGP | NS | NS |
| Malawi SCTP | -- (1) | NS |
| Zimbabwe HSCT | NS | NS/- (2) |
| Lesotho CGP | NS | -- |
| Kenya CT-OVC | NS | -- |
| Ethiopia SCTPP | NS | -- |
| Ghana LEAP | NS | NS |

(1) stronger for older boys in ganyu

(2) girls

# Tendency towards improved ability to manage risks

| | Zambia CGP | Malawi SCTP | Zimbabwe HSCT | Lesotho CGP | Kenya CT-OVC | Ethiopia SCTPP | Ghana LEAP |
|---|---|---|---|---|---|---|---|
| Negative risk coping | | -- | | -- | | | |
| Pay off debt | ++ | ++ | NS | NS | | | ++ |
| Borrowing | -- | - | NS | NS | NS | +/- | -- |
| Purchase on credit | NS | -- | + | NS | NS | | NS |
| Savings | ++ | | | NS | | | + |
| Give informal transfers | | NS | NS | ++ | | NS | ++ |
| Receive informal transfers | | NS | + | ++ | | NS | ++ |
| Remittan | | | | -- | | | NS |
| Trust | | | | | | ++ | |

- Reduction in negative risk

**Strengthened social networks**

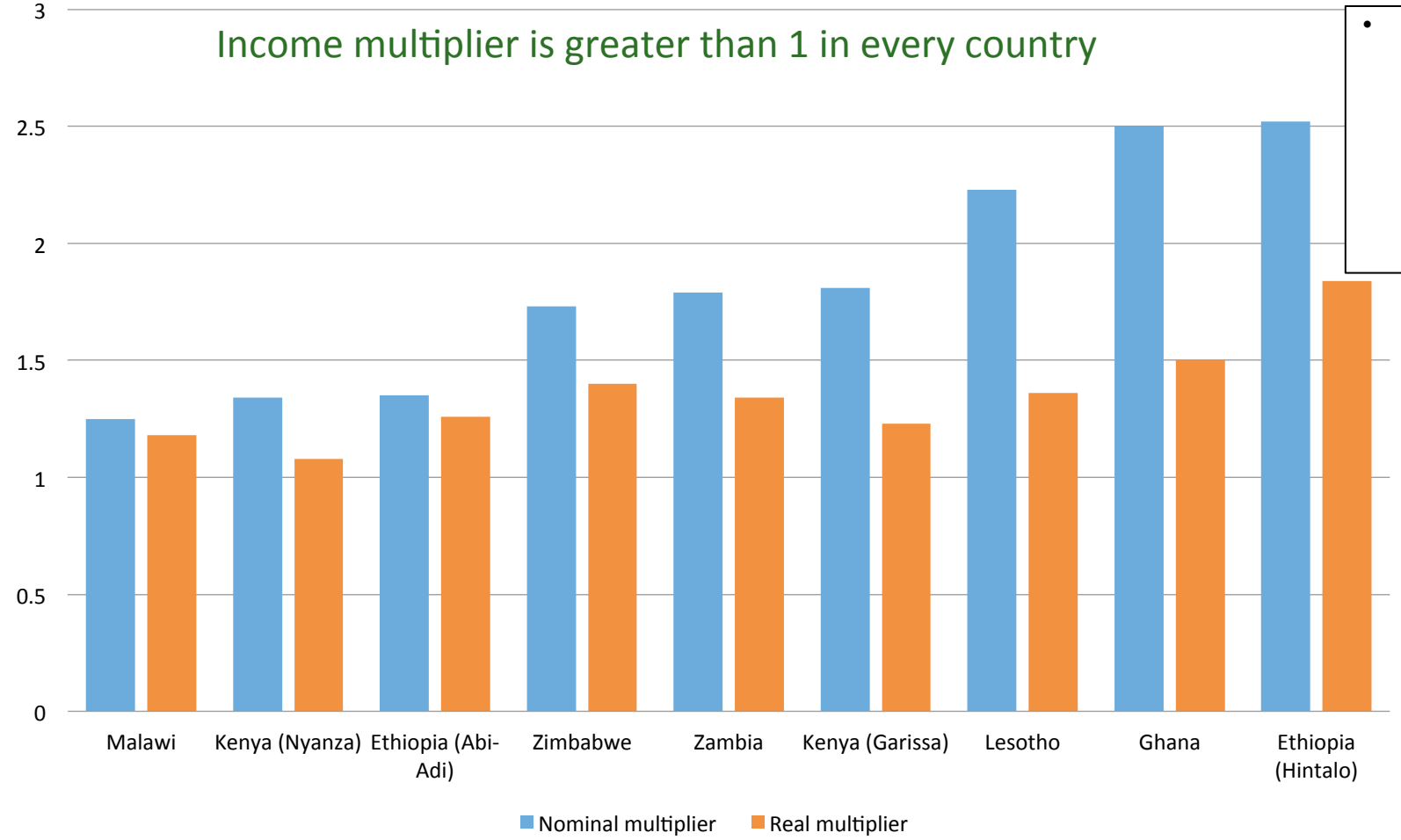
- In all countries, re-engagement with social networks of reciprocity—informal safety net
- Some instances of crowding out
- Allow households to participate, to "mingle" again

# Household multiplier effect greater than 1 in a few countries. Can these programs pay for themselves?

| | Zambia (ZMK) | | Malawi (MK) |
|---|---|---|---|
| | MCTG | CGP | SCTP |
| Annual value of transfer (A) | 720 | 660 | 26,169 |
| Savings | 71 | 112 | 381 |
| Loan repayment | 3.5 | 7.6 | 916 |
| Consumption | 1022 | 767 | 41,520 |
| Livestock value & productive assets | 145 | 65 | 124 |
| Non agricultural assets | | | 163 |
| Total spending (consumption + spending) (B) | 1245 | 952 | 44,282 |
| Estimated multiplier (B/A) | 1.73 | 1.44 | 1.69 |

Impacts are based on econometric results and averaged across all follow-up surveys. Estimates for productive tools and livestock derived by multiplying average increase (numbers) by market price. Only statistically significant impacts are considered.

# Positive impacts on the surrounding economy

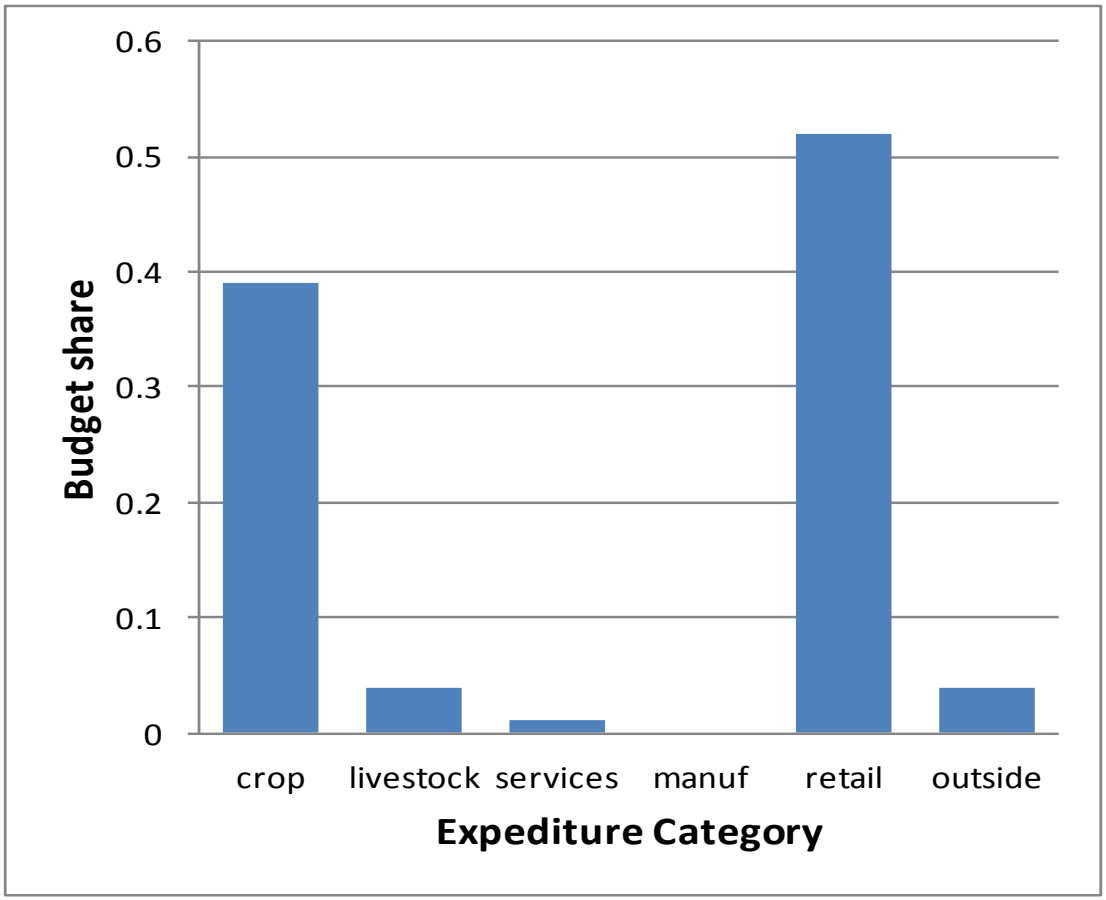



- Why variation?
  - Which sectors get stimulated
  - Openness of the economy
  - Supply response
  - Other constraints

# Impact on the local economy

- Transfer raises purchasing power of beneficiary households
- As cash spent, impacts spread to others inside and outside treated villages, setting in motion income multipliers
- Purchases outside village shift income effects to non-treated villages, potentially unleashing income multipliers there.
- As program scaled up, transfers has direct and indirect (general equilibrium) effects throughout region.
- Three possible extremes:
  - Local supply expands to meet all this demand
    - Big local multiplier
  - Everything comes from outside the local economy
    - No local multiplier at all: 1:1
  - Local supply unable to expand to meet demand, and no imports
    - Inflation
- Have to follow the money
  - Surveys and LEWIE model designed to do this

# CGP beneficiaries spend most of transfer locally—over 95 percent

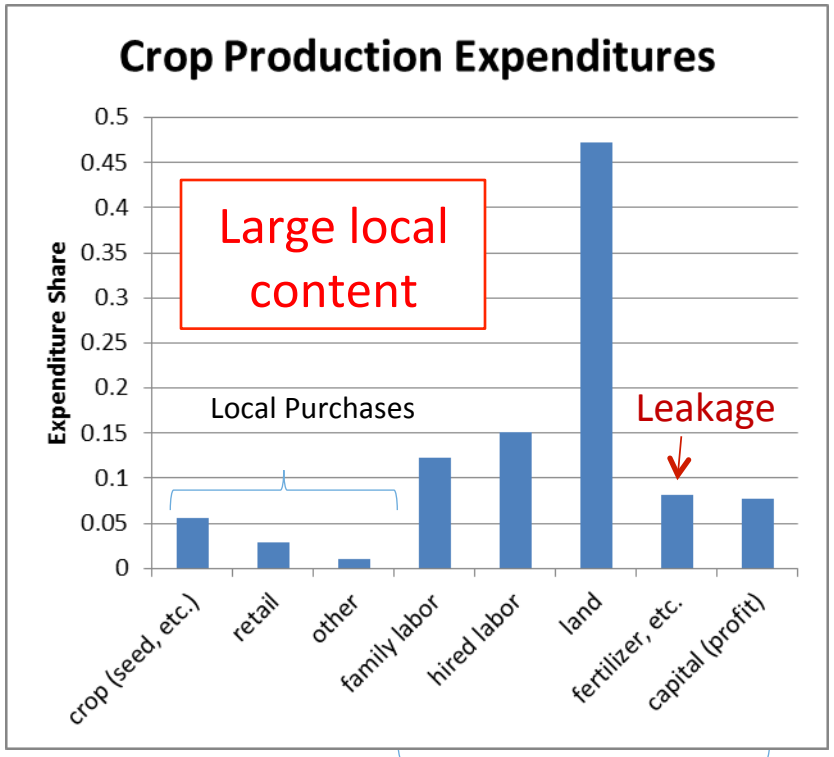


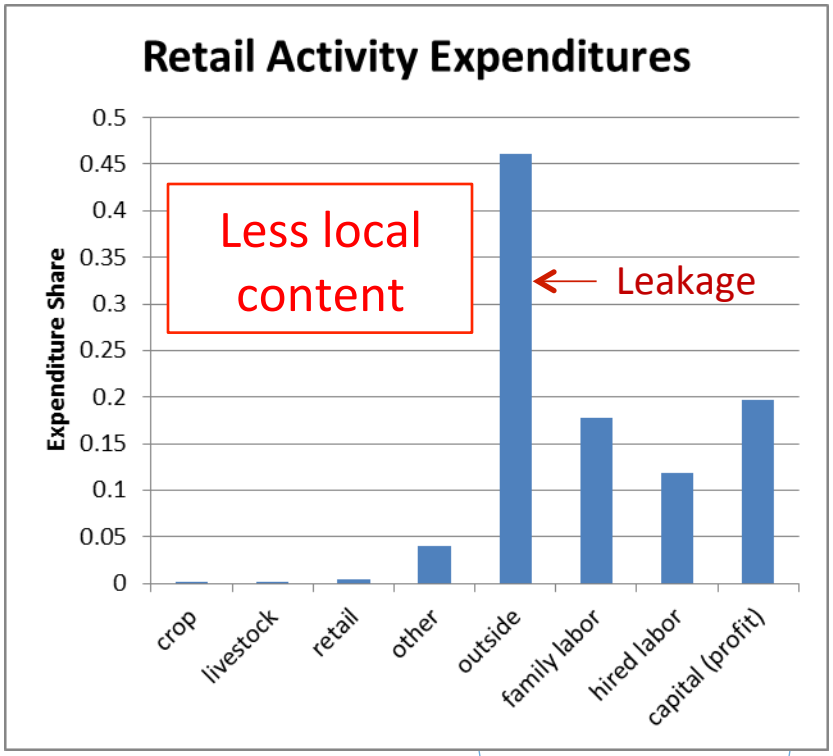

Includes village and nearby villages and town

# CGP household items purchased in village, inputs in town

| | Village | Nearby Village | Town | Outside (incl. gov.) |
|---|---|---|---|---|
| *Item Purchased* | | | | |
| Retail items purchased by households | 0.545 | 0.172 | 0.281 | 0.002 |
| Purchased input for crop production | 0.117 | 0.095 | 0.535 | 0.252 |
| Retail inputs purchased by businesses | 0.172 | 0.095 | 0.444 | 0.289 |
| Animal products purchased by households | 0.82 | 0.131 | 0.049 | 0 |

# These production activities buy inputs from each other, pay wages, and make profits




Data from Ghana

These expenditures start a new round of income increases

# Simulated income multiplier of the Zambia CGP program

| | Base model |
|---|---|
| Income multiplier | |
| Nominal (CI) | 1.79 (1.73- 1.85) |
| Real (CI) | 1.34 (1.29- 1.39) |

**MAX**

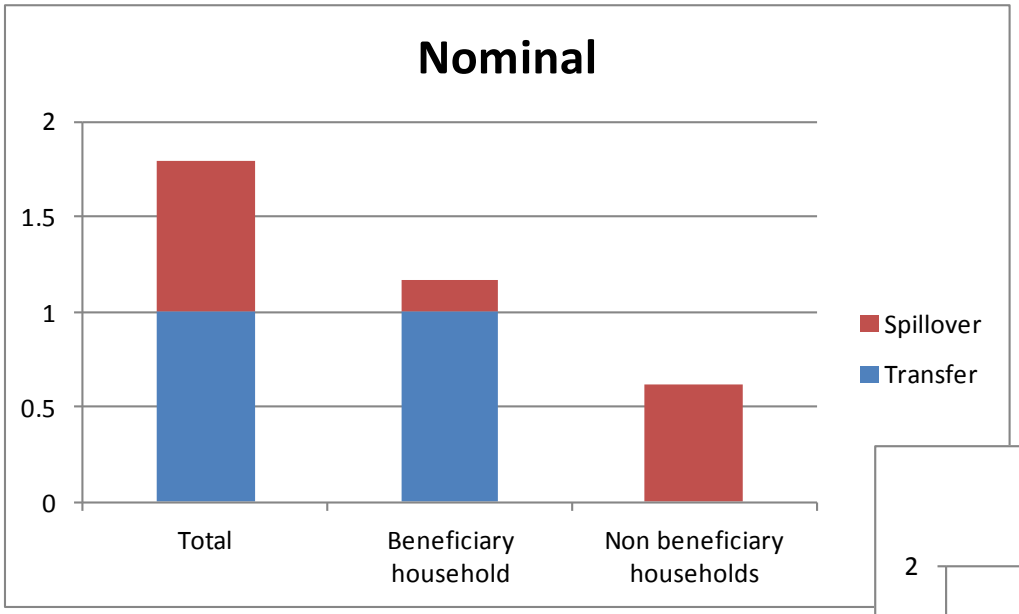
Every 1 Kwacha transferred can generate 1.79 Kwacha of income

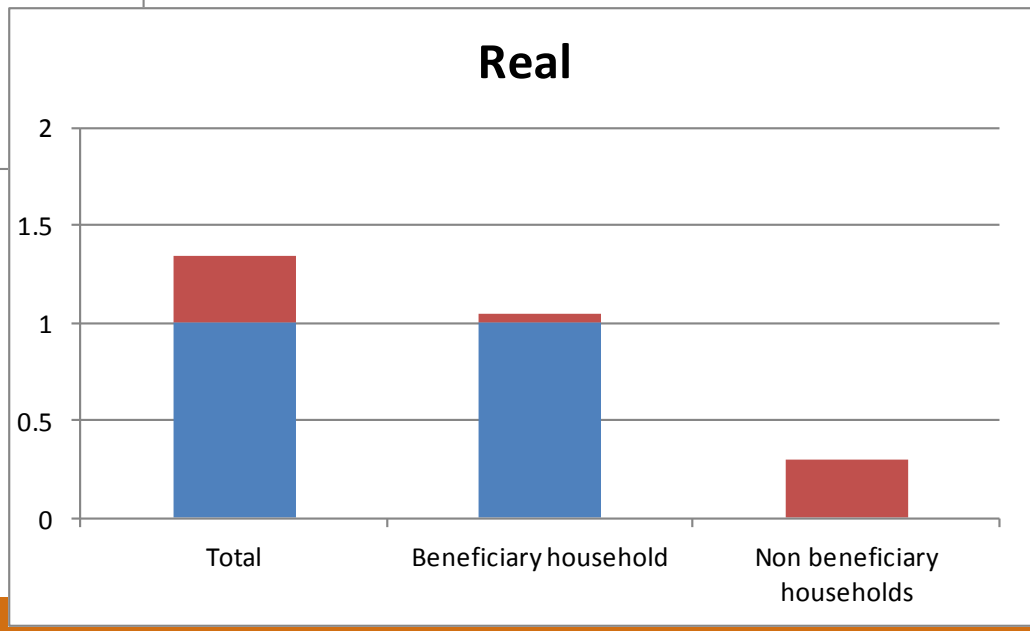
Production constraints can limit local supply response, which may lead to higher prices and a lower multiplier

When constraints are binding, every 1 Kwacha transferred can generate 1.34 Kwacha of income

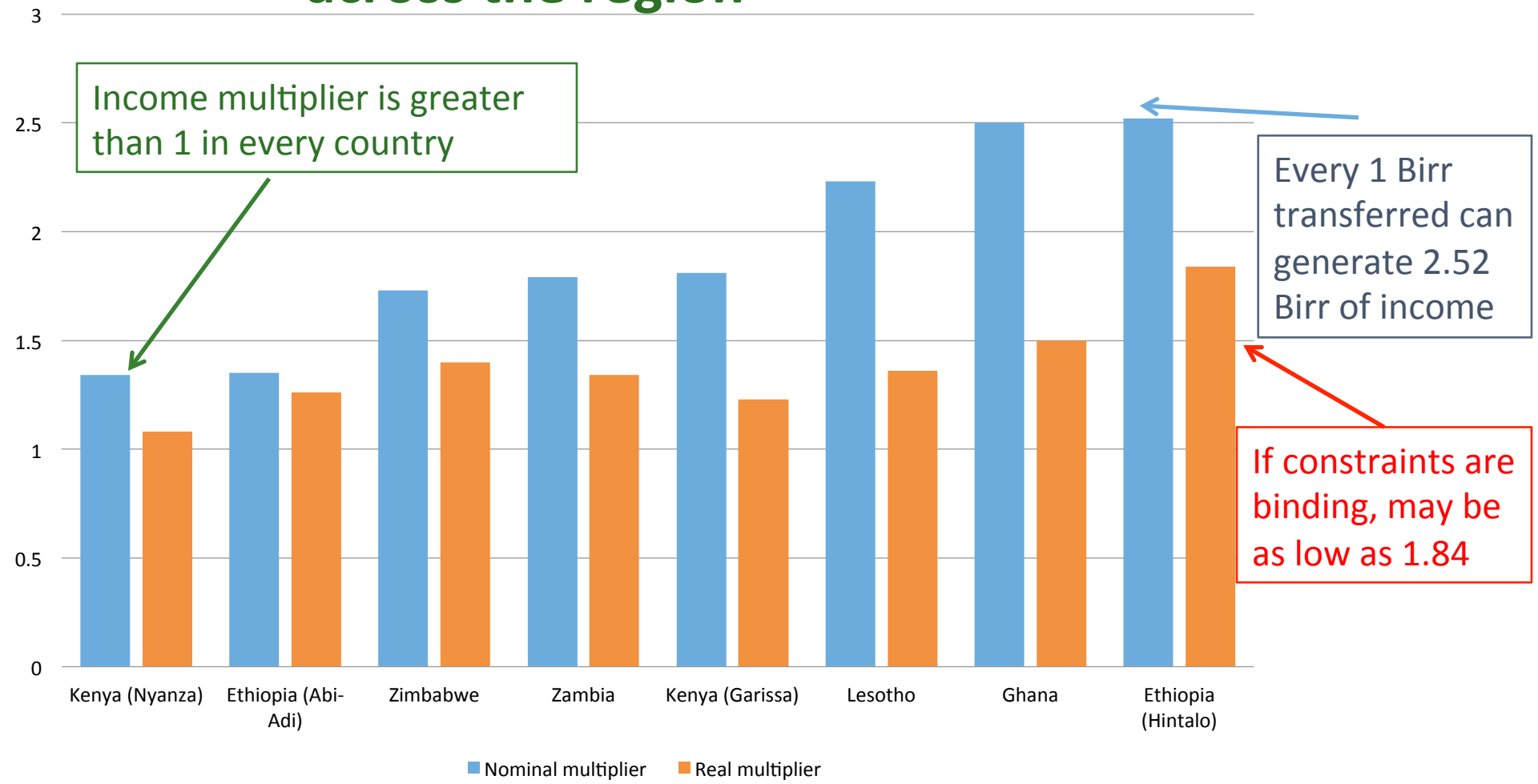
**MIN**

# Nearly all the spillover goes to non-beneficiary households



# Cash transfers lead to income multipliers across the region



# What explains differences in impact across countries?

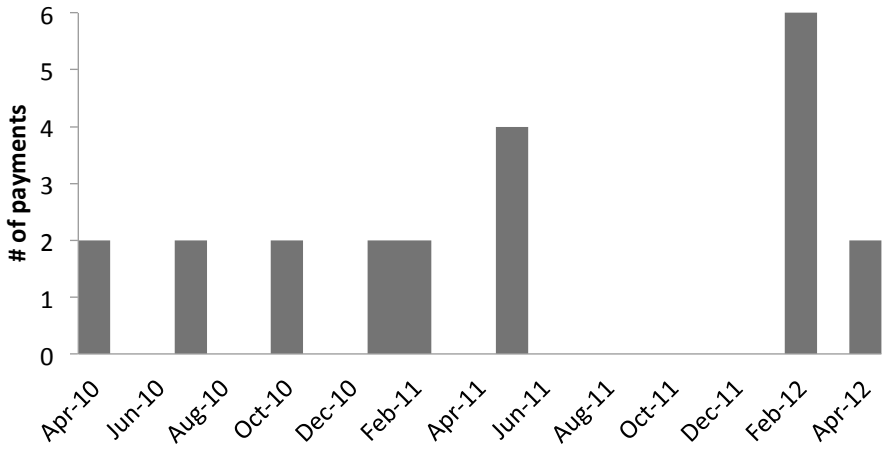
| | Crop | Livestock | NFE | Productive labor | Social Networks | Risk management |
|---|---|---|---|---|---|---|
| Zambia | ✓✓ | ✓✓ | ✓✓ | ✓✓ | | ✓✓ |
| Malawi | ✓✓ | ✓✓ | X | ✓✓ | ✓ | ✓ |
| Zimbabwe | ✓ | ✓✓ | ✓✓ | X | X | ✓ |
| Lesotho | ✓ | ✓ | X | X | ✓✓ | ✓✓ |
| Kenya | X | ✓✓ | X | ✓ | | |
| Ethiopia | ✓✓ | X | X | X | ✓ | |
| Ghana | X | X | X | ✓ | ✓ | ✓ |

# Predictability of payment

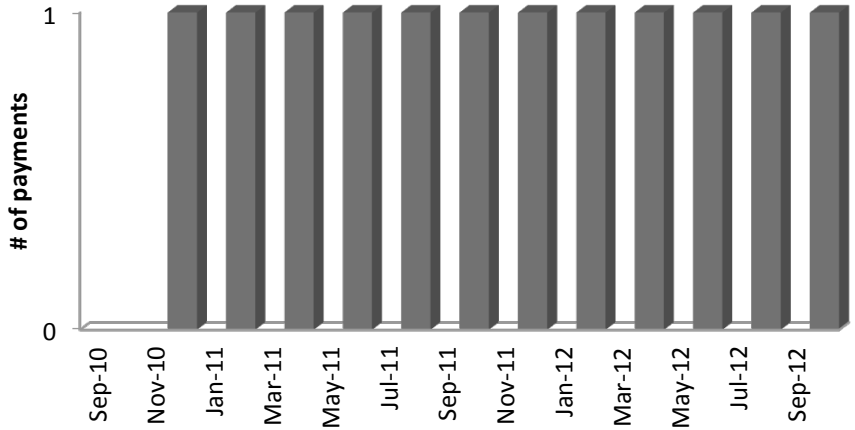
Lumpy and irregular

Regular and predictable

**Ghana LEAP**

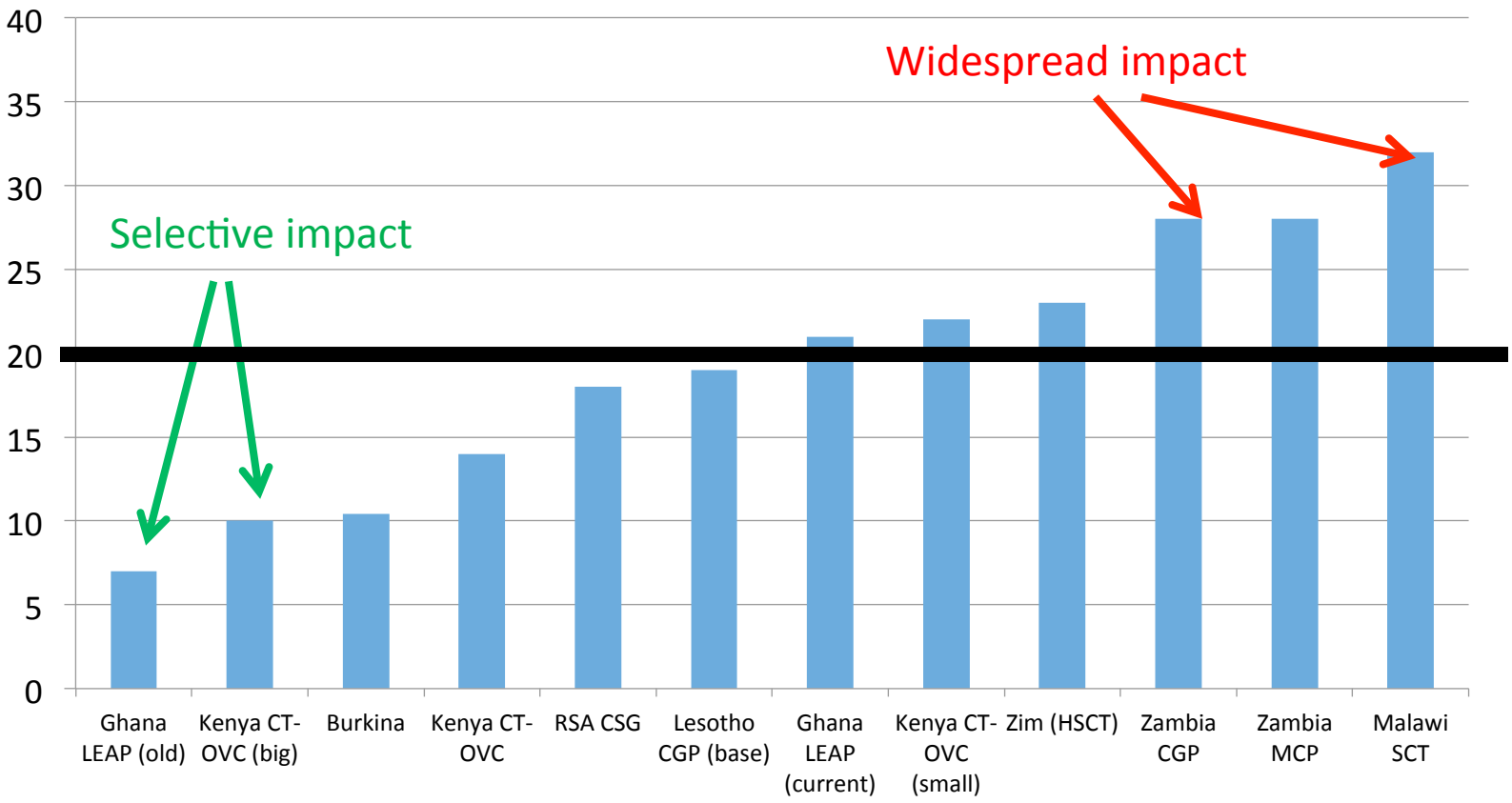



**Zambia CGP**




Regular and predictable transfers facilitate planning, consumption smoothing and investment

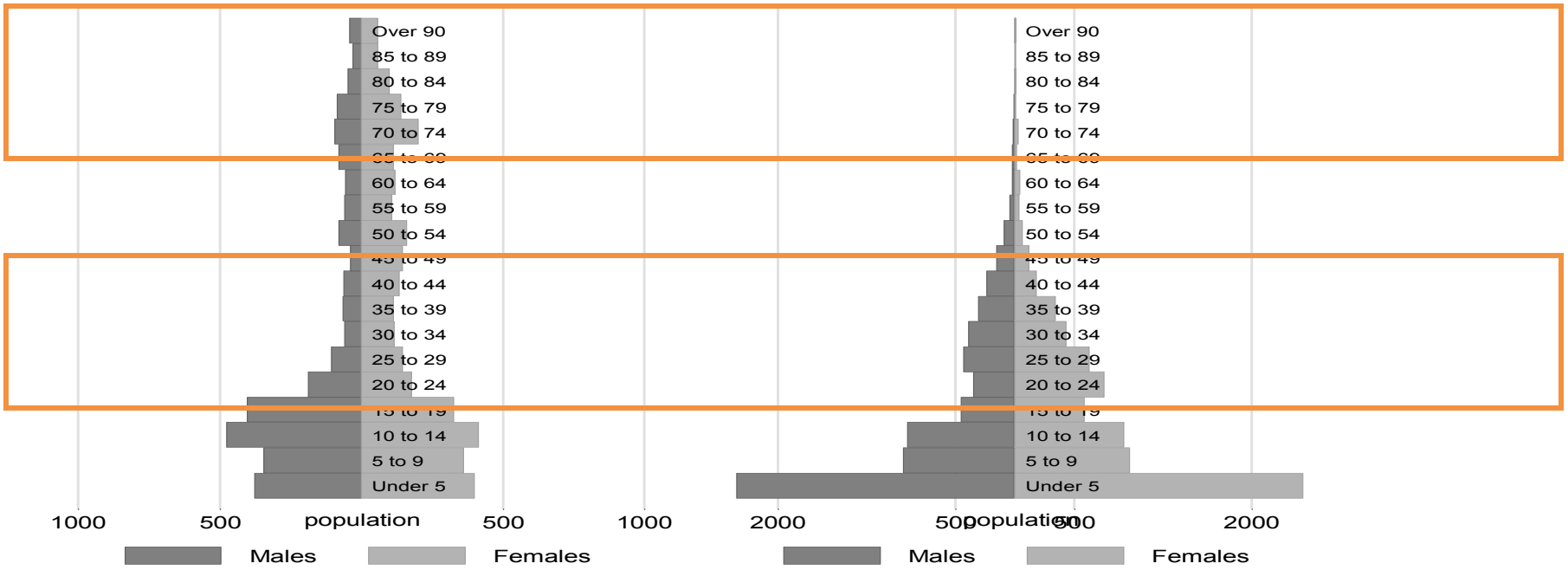
# Bigger transfer means more impact



# Demographic profile of beneficiaries

More labour-constrained

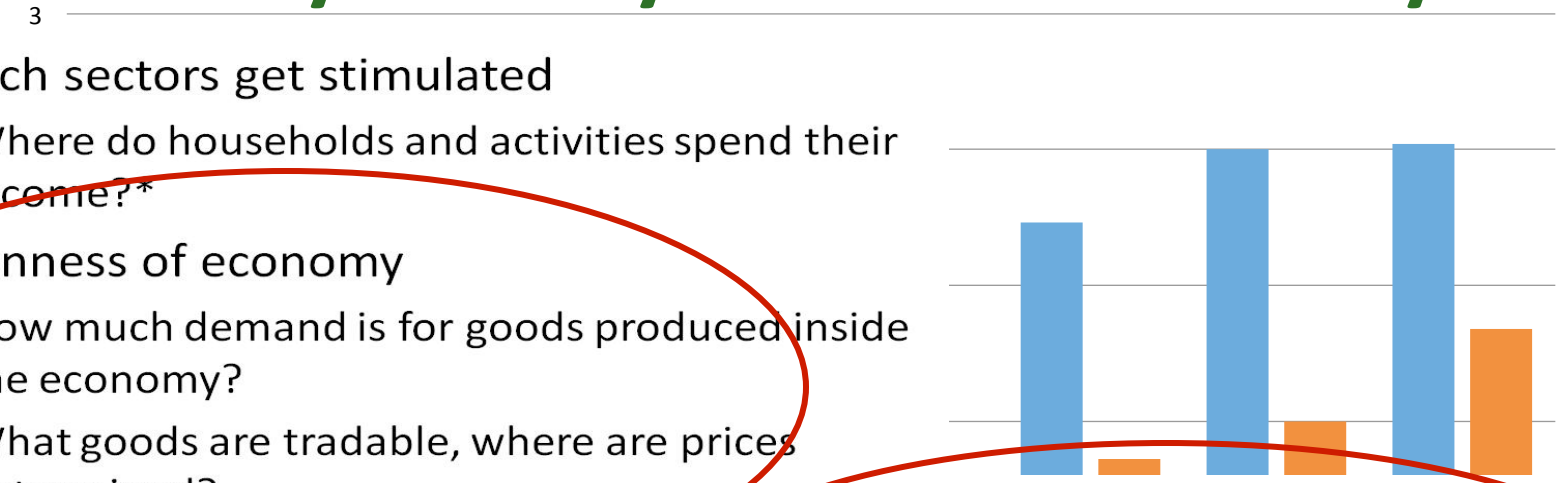
More able-bodied



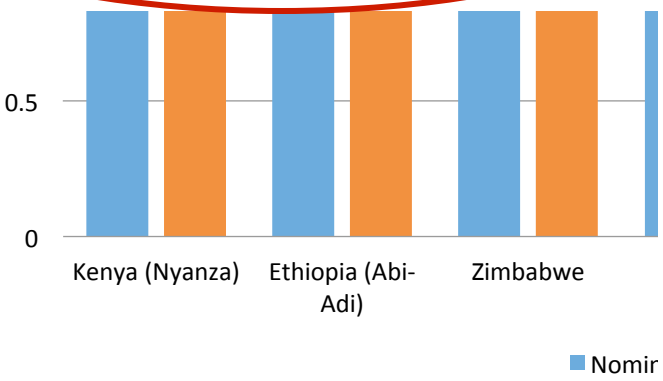
# Program messaging matters!

- Messaging in unconditional programmes, and conditions in CCTs, affects how households spend the transfer
- Lesotho: CGP transfer combined with Food Emergency Grant
  - Instructed to spend on children (shoes and uniforms)
  - Instructed to spend on agricultural inputs
  - And they did!!

# Size of income multiplier varies by country and context—Why?




- Which sectors get stimulated
  - Where do households and activities spend their income?*
- Openness of economy
  - How much demand is for goods produced inside the economy?
  - What goods are tradable, where are prices determined?
    - Retail: biggest sector, and most open




- Supply response
  - Intensity of local production in different inputs (labor, etc.)*
  - Elasticities of these inputs' supplies
- Other constraints
  - Cash constraints on inputs
  - SCT loosens these for beneficiaries, but not for non-beneficiaries

# Impacts on policies and programmes

- **Ghana**:

- Multiplier effects from LEWIE model were cited by the President of Ghana in a speech

- **Zambia**:

- Findings from FAO's impact evaluation contributed to scaling up social protection programmes

- **Lesotho**:

- Findings from FAO's impact evaluation used for advocacy by the Ministry of Social Development, particularly with the Ministry of Finance

# How can cash transfers be better linked to livelihoods?

1. Ensure regular and predictable payments
2. Link cash transfers to livelihood interventions
3. Consider messaging—it's ok to spend on economic activities
4. Consider expanding targeting to include households with higher potential to sustainably achieve self-reliance
   - including able-bodied labour

But keeping in mind potential conflicts and synergies with social objectives

# Agriculture, livelihood interventions play important part in social protection systems

- Reaching social objectives and reducing vulnerability require sustainable livelihoods
- Almost three quarters of economically active rural population are smallholders, most producing own food
- Small holder agriculture as key for rural poverty reduction and food security in Sub Saharan Africa
  - Relies on increased productivity, profitability and sustainability of small holder farming
- Social protection and agriculture need to be articulated as part of strategy of rural development
  - Link to graduation strategies

# New evidence

- Lesotho: CGP + homestead gardening
  - *Positive effects of the programmes on homestead gardening and productive agricultural activities. Many of these observed outcomes appear driven by the combination of the two programmes.*
- Lesotho: shock-responsive social protection
  - *El Niño induced drought has triggered a rise of food prices in the region, especially cereals. To maintain welfare unchanged, the amount of the Child Grants Programme would have to increase by 2% for every percentage point increase in the price of cereals.*
- Malawi: FISP + SCT
  - *SCT and FISP play complementary roles to improve consumption and production. Synergies stronger for poorer labour constrained households.*
- Zambia: SCT and technical efficiency
  - *Child Grant model of SCT increased farmers' inefficiency by 23 percent. Lack of knowledge (human capital) prevented households to exploit greater investment in agricultural inputs to expand production. Case for more extension services?*

# Thank you