### Participation in Rural Land Rental Markets in Malawi: Who benefits and by how much?

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#### Role of land markets?

- Rental and sales markets could enable net transfers of land
  - From land-rich to land-poor → Equality gains
  - From less-able to more-able farmers → Efficiency gains
- Enable productive livelihoods → Welfare gains
  - Especially for households with insufficient land...
- Such gains are conditional on efficient land prices, transactions costs of participation, etc.

# Where does land renting fit in as a poverty reduction strategy in rural SSA?

Pathways out of poverty (Harris and Orr 2014):

1) Increase staple crop production and productivity

2) Increase commercialization, through better prices and higher value production

3) Increase off-farm income

# Reducing poverty through staple crop productivity

- A) Yield increases through increased input use and adoption of improved varieties.
  - It can help, but may be difficult to achieve on small farms, with growing population.
- B) Increases in farm size, leading to increased output.
  - Kenya: Households moving out of poverty cultivated 70% more land in 2007 than in 1997 (Muyunga et al. 2010).
  - Mozambique: household moving out of poverty increased land by 10% between 2002 and 2005 (Cunguara 2008).
  - Zambia: households moving out of poverty increased land holding at inheritance from 5 ha to 23 ha (Banda et al. 2011).

Increasing farm size may also happens along side increased commercialization and crop diversification.

#### Possibilities for increasing farm size

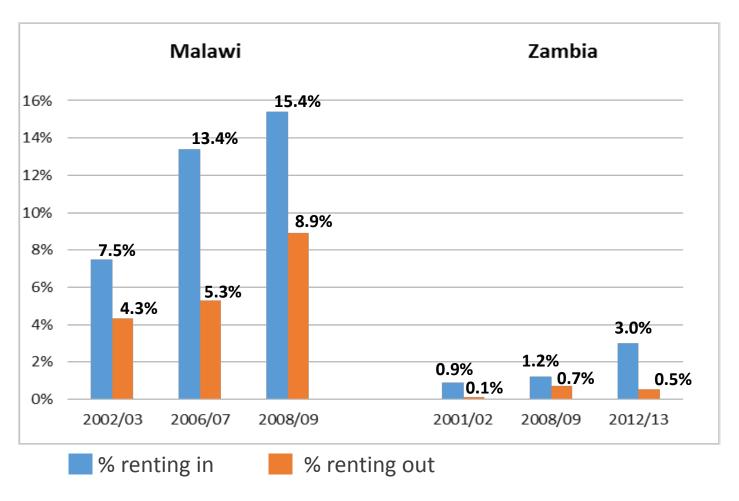
- It may be possible to bring unused land into cultivation in some areas
  - Evidence suggests that many parts of Africa have little to no available land (Chamberlin et al. 2014)
  - Limited access to capital makes it difficult to clear and cultivate new land even if available
- In many areas, particularly those with high population density, land rental markets may be the most feasible way for smallholders to expand area cultivated
  - Landlords must be compensated fairly (not-coerced into renting out)
  - There must be non-farm opportunities for landlords to participate in that offer them higher returns than farming

#### Structural transformation process

- 1) Agriculture as declining share of GDP
  - movement of labor: rural → urban, farm → non-farm
  - off-farm income increases
- 2) Fewer farmers
  - The most efficient producers stay in the system and expand
- 3) Larger landholdings
  - as agriculture transforms to a capital intensive sector from labor intensive sector

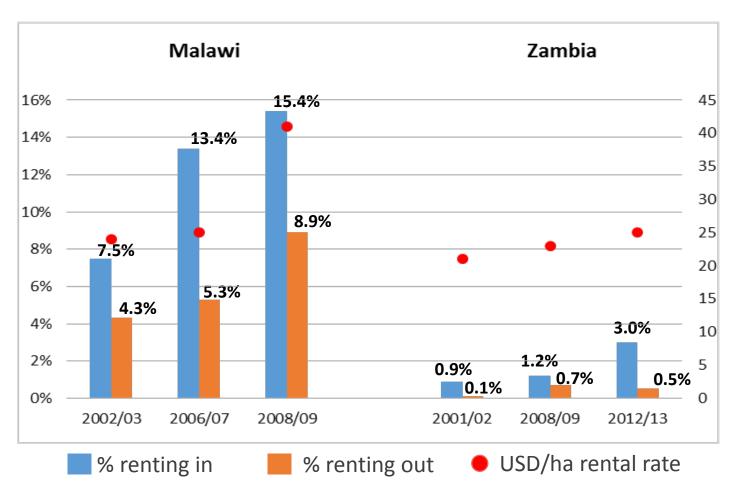
- Land rental markets may facilitate this process
  - Especially 2) and 3)

# What we know: Rental status of the samples in Malawi and Zambia



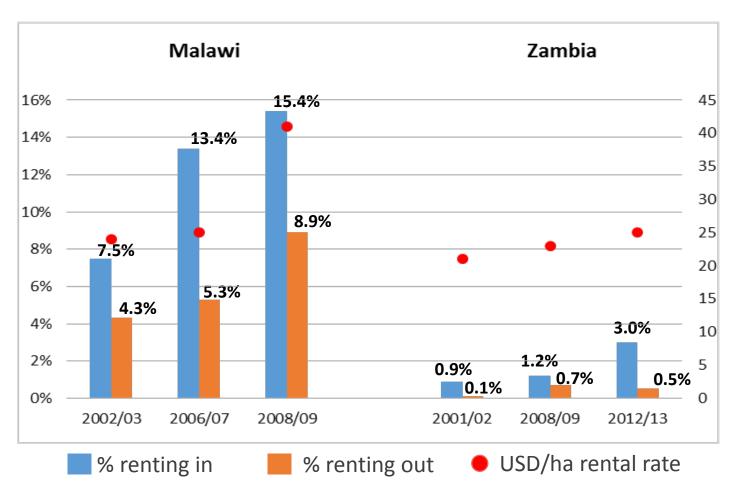
Most arrangements are up front cash rentals.

#### Rental status of the sample



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#### Rental status of the sample



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**Tenants** 

Landlords

**Education:** 

**Durable assets:** 

**Off-farm income:** 

Labor:

Land:

**Tenants** 

**Landlords** 

**Education:** 

More

>

Less

**Durable assets:** 

**Off-farm income:** 

Labor:

Land:

**Tenants** 

**Landlords** 

**Education:** 

More

>

Less

**Durable assets:** 

**Off-farm income:** 

Labor:

Land:

<u>Tenants</u>

**Landlords** 

Less

**Education:** 

More

**Durable assets:** 

More

> Fewer

**Off-farm income:** 

Labor:

Land:

**Durable assets:** More > Fewer

Off-farm income: More > Less

Labor:

Land:

TenantsLandlordsEducation:More>LessDurable assets:More>FewerOff-farm income:More>LessLabor:More<</td>Less

**Immigrants:** 

Land:

Landlords **Tenants Education:** More Less **Durable assets:** More Fewer Off-farm income: More Less Labor: More Less Land: More Less

**Immigrants** ≠

**Immigrants:** 

Local households

# Impacts: fairly consistent across countries

Impact	Kenya <sup>¥</sup>	Malawi <sup>†</sup>	Zambia <sup>†</sup>
Efficiency	Yes	Yes	Yes
Equality in land distribution	Yes	Yes	Yes
Welfare: Farm income	Yes (renting in)	Yes (renting in) No (renting out)	No
Welfare: Poverty status	No	Yes (renting in) No (renting out)	No

### One reason for the poverty difference may be due to population density

- Malawi population density = 139 people/km²
- Zambia population density = 19.2 people/km²
- Kenya population density = 66.4 people/km<sup>2</sup>

<sup>&</sup>lt;sup>†</sup>From Chamberlin and Ricker-Gilbert (2015).

<sup>&</sup>lt;sup>¥</sup> From Jin and Jayne (2013).

# But the costs of renting in are high relative to gross margins...

#### Rental rate as a proportion of value of crop production per hectare (Malawi)

	percentile				
	10th	25th	50th	75th	90th
tenants only	0.06	0.12	0.23	0.47	0.95
full sample	0.10	0.17	0.31	0.59	1.19

### And Land rental costs also a large share of total input costs

MALAWI	Land rental costs Total input costs (fert, seed, hired labor, land rental)					
Percentiles:	10 <sup>th</sup>	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	Mean
Tenants only	0.06	0.13	0.27	0.52	0.91	0.37

#### Distributional effects

In Malawi, and extra ha of land increases net crop income by

	10 <sup>th</sup>	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>	Mean
Land area rented in (ha)	-\$34	-\$2	\$38***	188***	196***	172***
Land area rented out (ha)	\$1	-\$7	-\$15	-\$18	-\$144***	-\$156***

<sup>\*\*\*</sup> means effect is statistically different from zero

#### Knowledge gaps

- What explains more observations on tenants than on landlords?
- Why do landlords participate if no apparent benefits? (stress rental?)
- Renting as stepping stone to expansion?

- What is the optimal operational size for farming in smallholder systems? Do rental markets help achieve this?
- What governs the formation of rental prices? How efficient are they?

#### Conclusions

- 1) Conventional measures of land rental market performance (efficiency and equality) suggest positive gains for renters.
  - How are well landlords being compensated?
- 2) Land rental markets may have potential to reduce poverty in Malawi.
  - Particularly in high population density areas
  - Potential may not be fully reached yet.
- 3) Questions remain about who is able to these markets and their distributional impacts.
- 4) Land rental markets are growing so should be on policy makers' radars.



#### Are we fully observing participation?

	Total area rented in	Total area rented out	Difference	% of total area that is rented out
Ethiopia	1,516,979	206,339	1,310,640	
Malawi	130,155	5,092	125,063	4%
Niger	262,079	80,486	181,593	31%
Nigeria	1,069,316	15,404	1,053,912	1%
Tanzania	400,091	197,619	202,472	49%
Uganda	492,903	27,824	465,079	6%

Deinninger et al. (2015) constructed from World Bank LSMS datasets

<u>Tenants</u>		<u>Landlords</u>
More education	>	Less education
More durable assets	>	Fewer durable assets
More off-farm inc.	>	Less off-farm inc.
More labor	<	Less labor
Less land	<	More land
Immigrants	<b>≠</b>	Local households