

Selling low and buying high? Understanding farm profitability

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Evidence to Action: Building Markets for Small-Scale Farmers

May 1, 2014 | Berkeley, California



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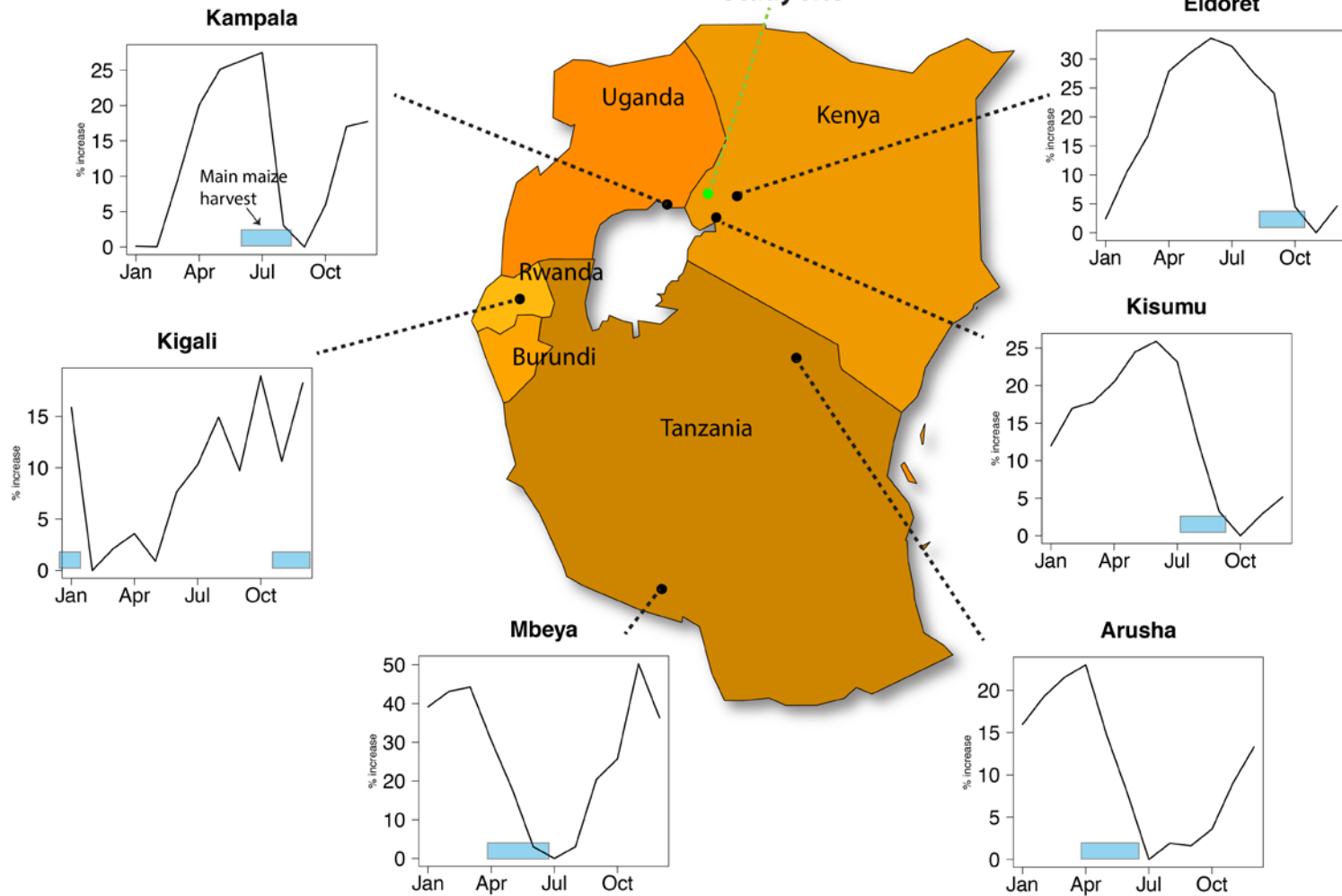
TRANSLATING RESEARCH INTO ACTION

Food prices matter for the poor

- Poor households spend a lot of money on food
- Many poor households earn most of their income from selling food

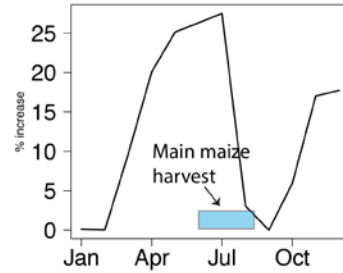
Typical assumption: farmers have little control over the prices they face

Study site

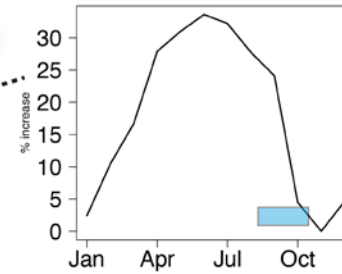


Study site

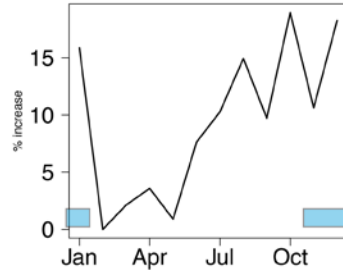
Kampala



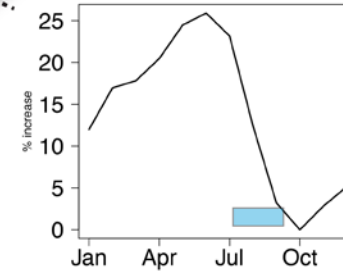
Eldoret



Kigali

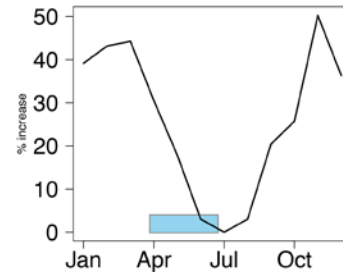


Kisumu

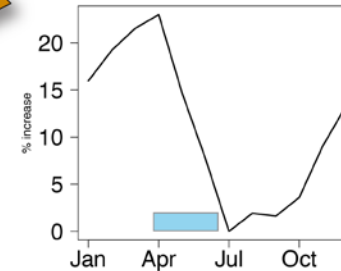


At our rural study site:
Typical seasonal
increase is 100%!

Mbeya



Arusha

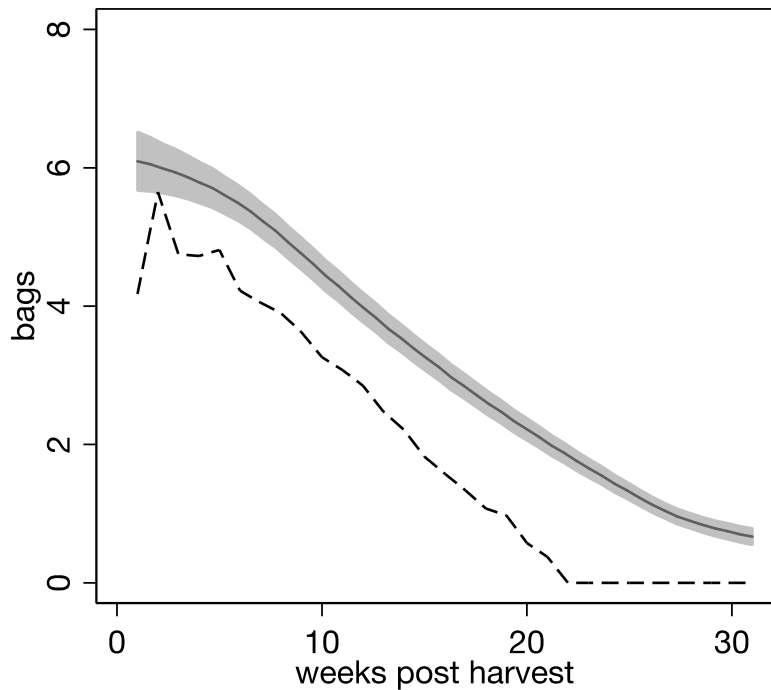




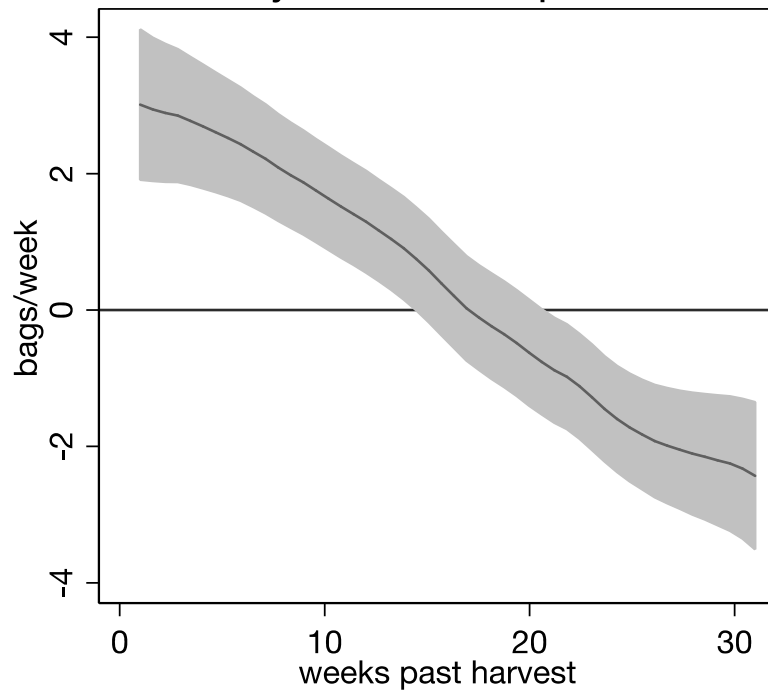
So: buy low, sell high?

Sell low, buy high!

Inventories

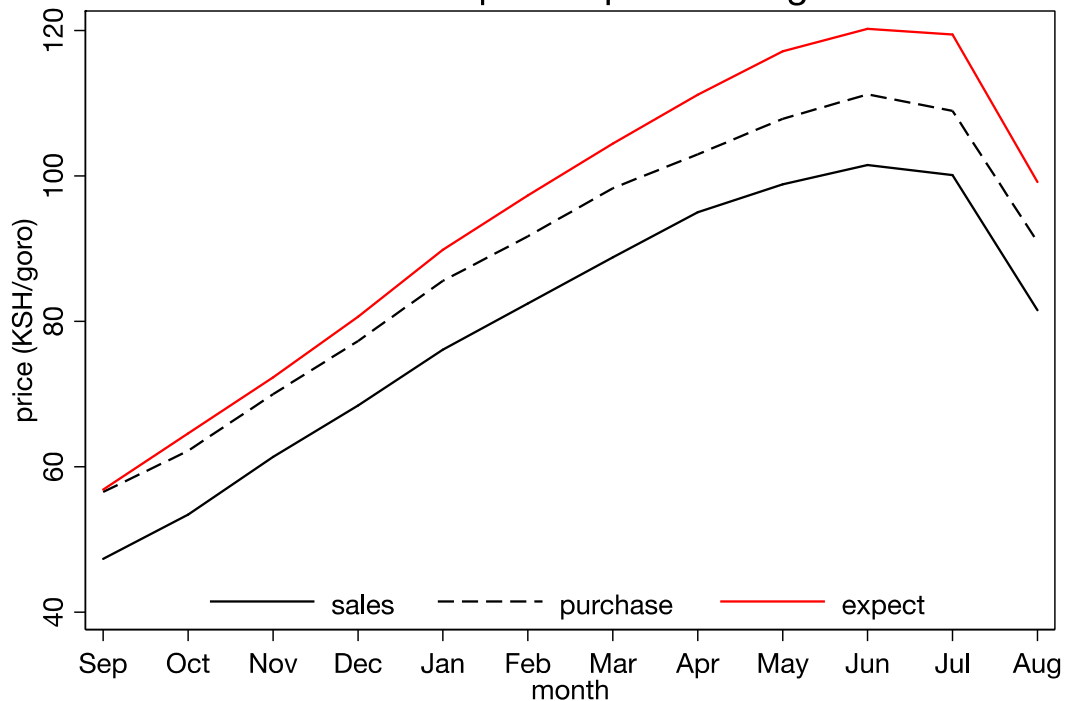


Quantity sold minus purchased



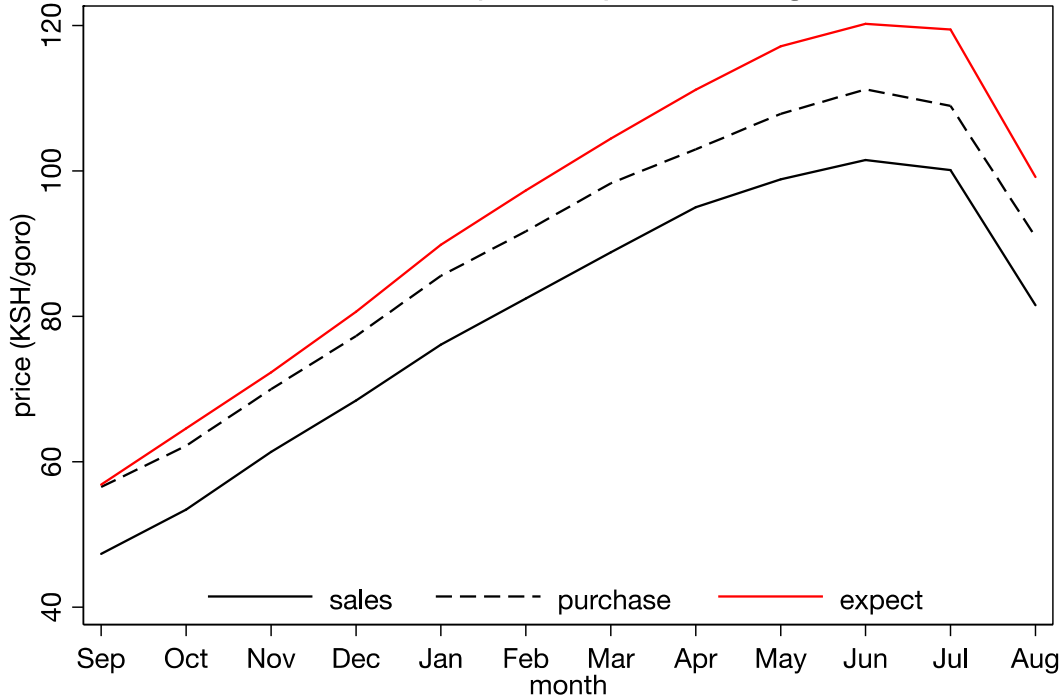
What's going on?

Farmer reported price change



What's going on?

Farmer reported price change



Q: Why do you sell at harvest instead of later, when prices are higher?

A: I need the cash.

With OAF, we offered a storage loan

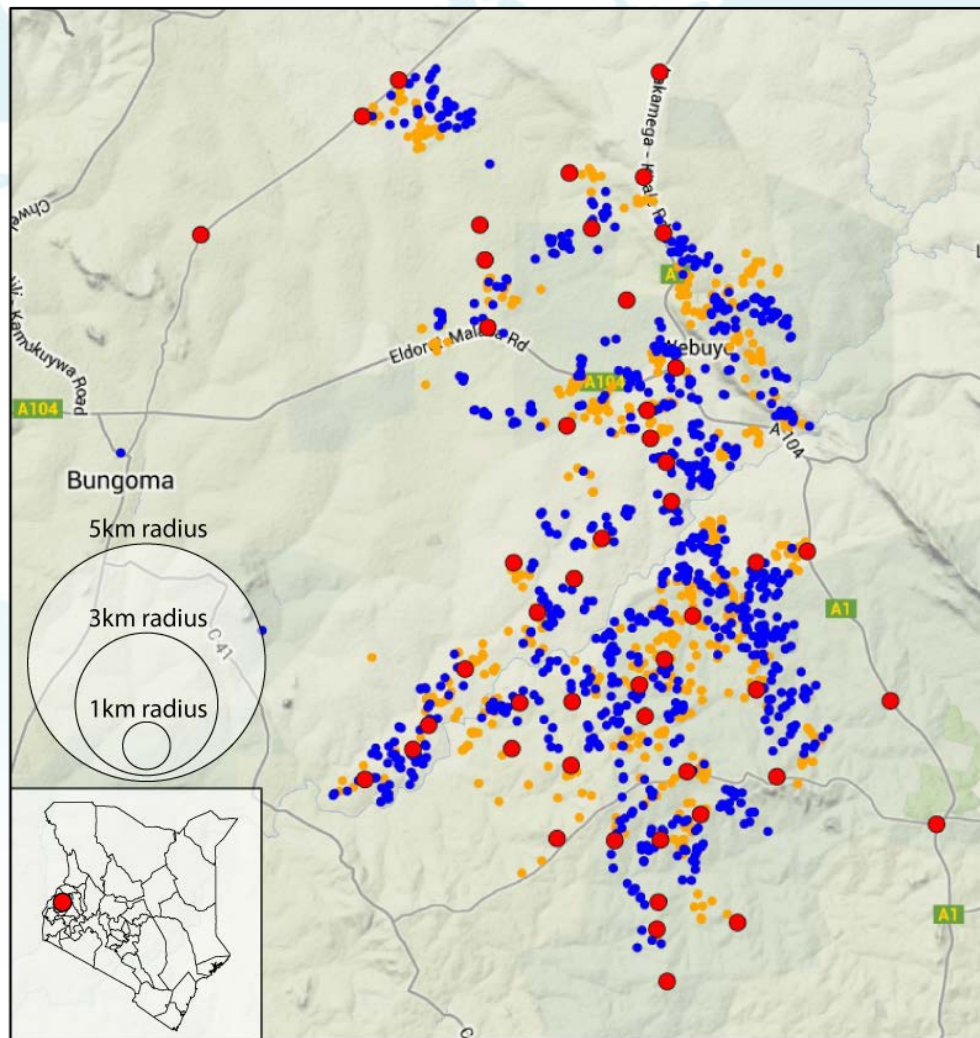
- Offer cash (~\$100) at harvest (T1) or three months after harvest (T2) to randomly selected OAF farmers
- Stored maize as collateral
- 10% interest, repay flexibly
- Re-visited treated and control farmers many times throughout the year to track inventories, sales, purchases, etc.

Take-up was very high: >70%

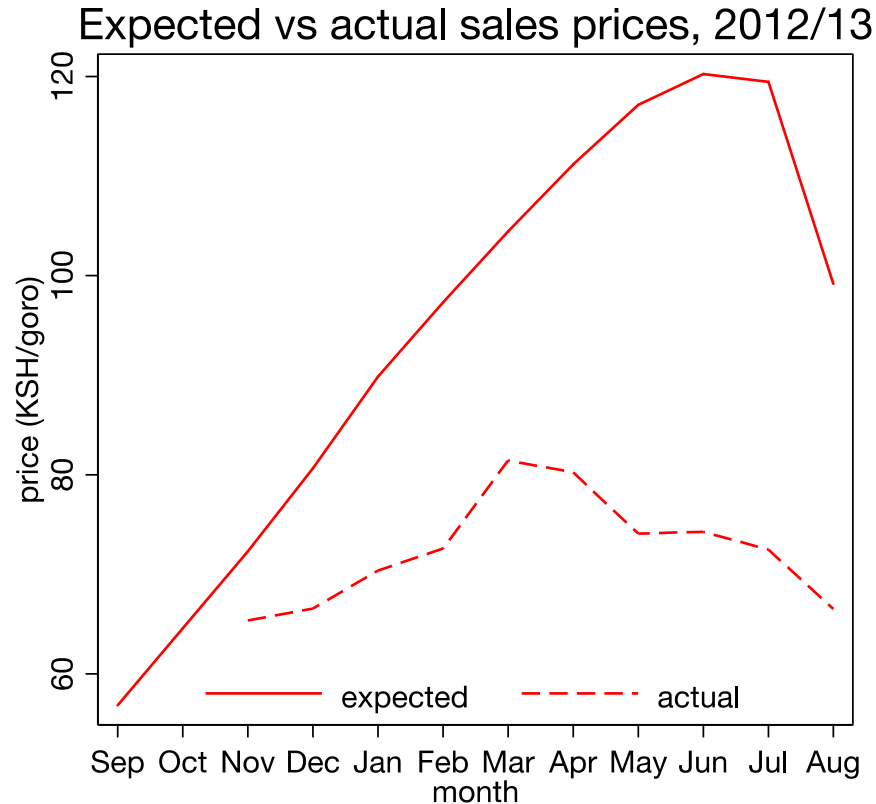
But what if the loan “works”?

- Farmers might sell less at harvest, sell more later on:
 - This could reduce the price dispersion!
 - This could reduce the profitability of the loan!

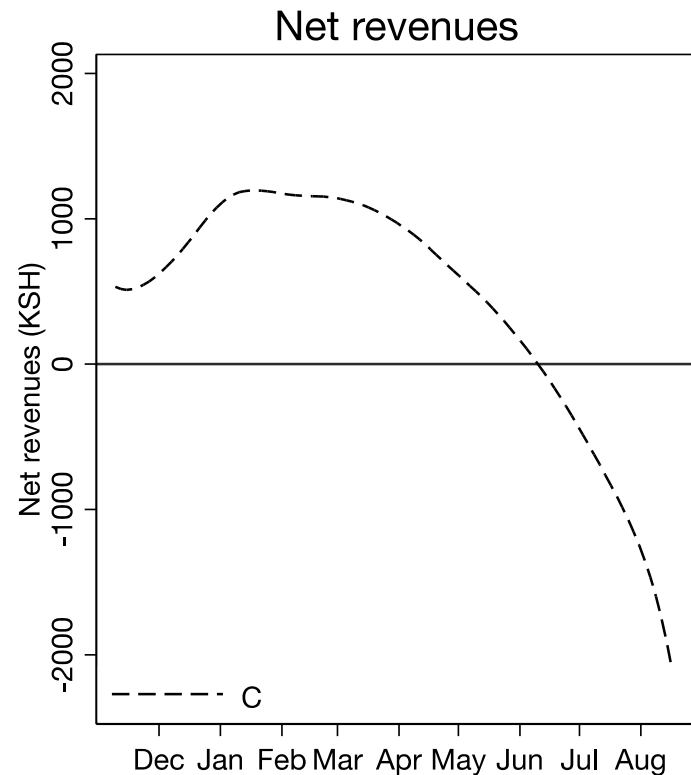
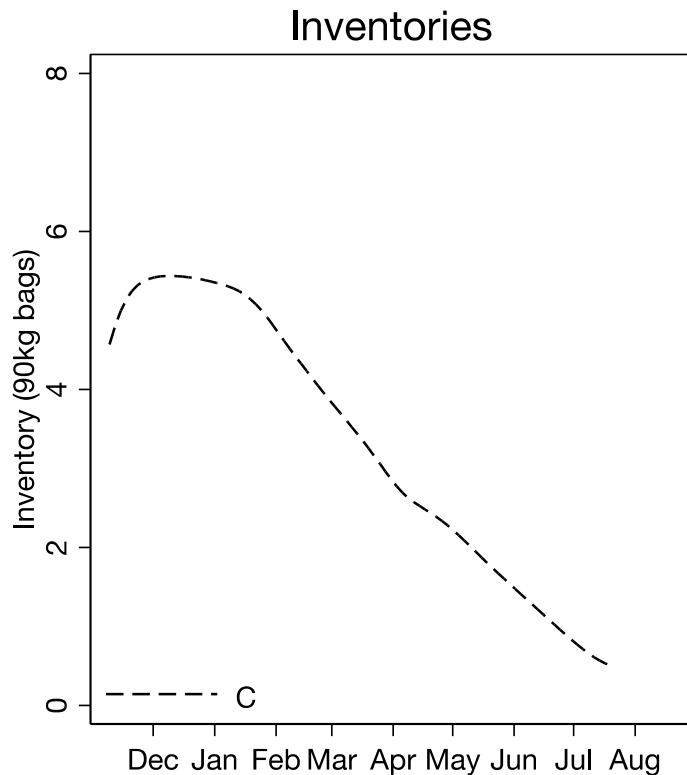
To understand these price effects, we also randomized the number of loan offers across markets.



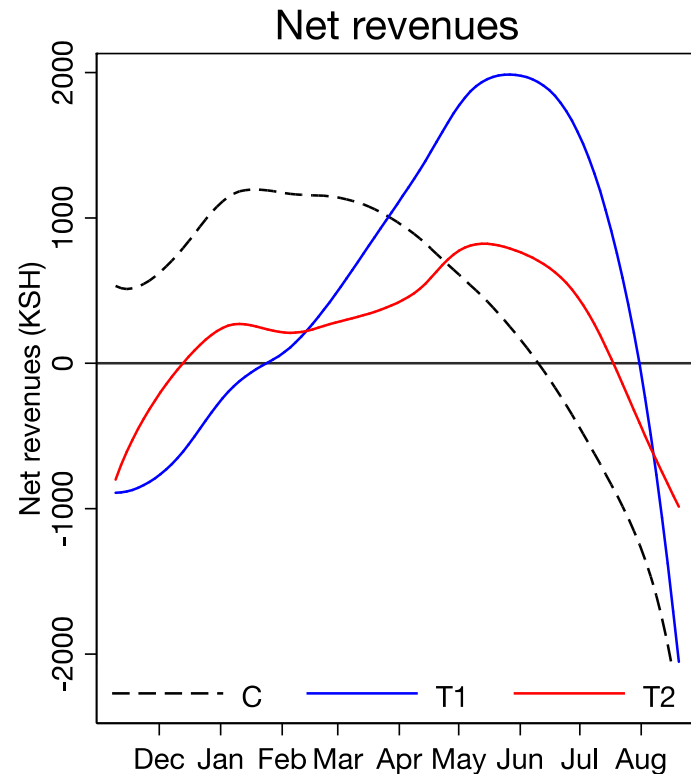
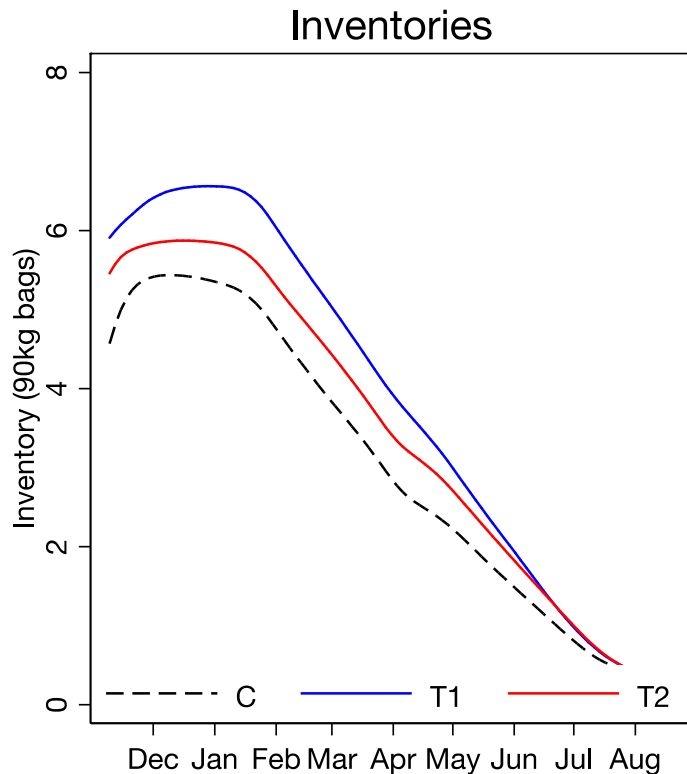
Sadly, overall price rise was small last year



Results at the farmer level

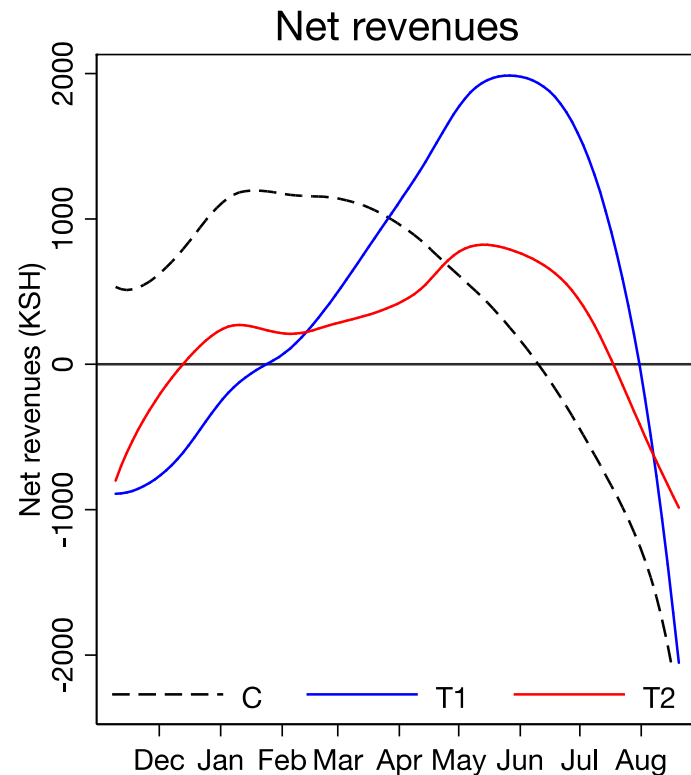


Results at the farmer level



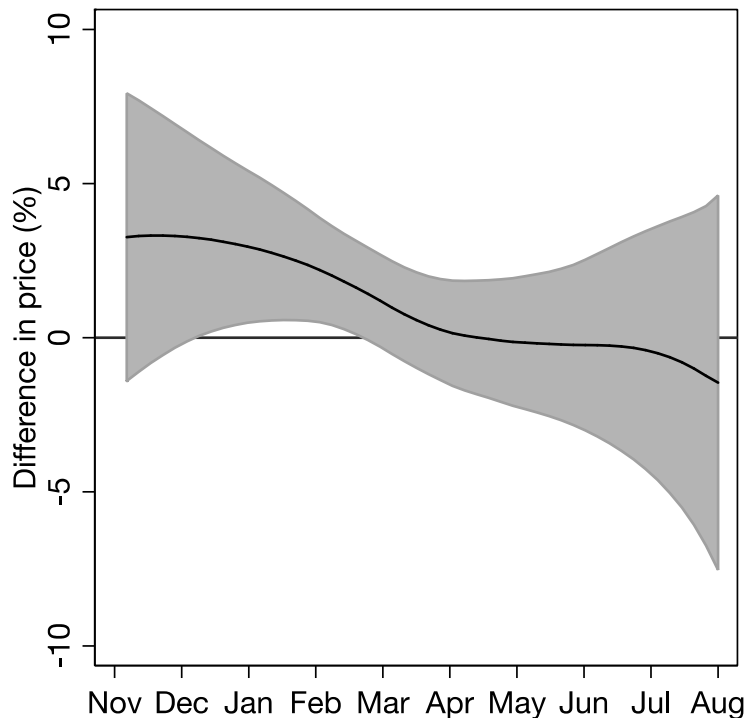
Results at the farmer level

Even with low price rise:
20% ROI after repayment for
farmers who got the loan at
harvest



What happened to prices?

Difference in prices, high versus low treatment density



Post-harvest prices ~5% higher in areas with lots of loans

What did these price effects mean for farmers?

- It reduced the effectiveness of the loan in “high density” areas
 - Arbitrage opportunity was smaller
- It helped revenues of control farmers!
 - (although not quite significantly so)
 - But probably also had positive spillovers outside our experiment

Conclusions

1. Access to well-timed credit can help improve the profitability of small farms
2. Absence of credit markets spills over into other markets that matter for the poor
 - Missing credit market exacerbates seasonal price swings