ANCOVA estimation of lending impacts

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Contents

1	Summary
I.1	Definitions
I.2	Inference
I.3	Findings
П	Define initial sample
II.1	Descriptive statistics
II.2	Changes in assets
II.3	Error bar graphs of outcomes
II.4	Graphs of repayments
Ш	Estimation using initial sample HHs
III.1	Repayment and net saving
III.2	Schooling
III.3	Incomes
III.4	Consumption
III.5	Assets
	.5.1 Homestead land
	.5.2 Livestock
	.5.3 Cattle holding
	5.4 Productive assets
	.5.5 Narrow productive assets
	5.6 Productive assets+livestock
	5.7 Broad net assets: Broad assets+Livestock-GUK Debt-Other Debts
	.5.8 Net assets: Assets+Livestock-GUK Debt-Other Debts
	5.9 Net non-livestock assets: Non-livestock assets-GUK Debt-Other Debts
	5.10Net assets, experienced vs. inexperienced
	5.1 Livestock, experienced vs. inexperienced
Ш	.5.12Cattle holding, experienced vs. inexperienced
IV	Estimation using complete panel HHs in household assets 263
IV.1	Assets
	1.1 Productive assets
IV.	1.2 Net assets: Assets+Livestock-GUK Debt-Other Debts
٧	Summarising results 288
V.1	Counting observations used in ANCOVA estimation
V.2	IGA
V.3	Graphs
V.4	Project cycle

Need: packages Imtest, sandwich.

To reach to this file:

- 1. read_cleaned_data: This reads survey files. Corrects errors.
- 2. read_admin_data: This reads administrative file. Corrects errors, define TradGroup2 "NotReceivedLoan".
- 3. ReadFilesMergeAdminRoster: This merges survey files with admin file (e.g., AssetAdmin-Data.rds). Create ar, arA and attach o800, o1600. Attrition in o800 is 92. Define BStatus.

In what follows,

- 1. Read RosterAdminData.rds, etc., create dummy interactions and trim observations if grep1("tw|dou", TradGroup) is true.
- 2. Summarise descriptive statistics, estimate ANCOVA, graph estimates and IGAs.

This note uses ANCOVA as the estimator of choice. ANCOVA assumes the initial value of outcome variable is a pure nusissance that it only adds a noise and is uncorrelated with the main regressor of interest, hence uses it as a covariate. Under such assumptions, it is shown that ANCOVA is more efficient than DID as it renders data to control for baseline differences in outcomes (Frison and Pocock, 1992). ANCOVA become numerically the same as DID if the estimated coefficient on the covariate is unity. As shown in the results, we see that it smaller and the claim that DID overcorrects for the initial values applies to our data.

Read: c:/data/GUK/analysis/save/EstimationMemo/AllMeetingsRosterAdminData.rds.

Further data preparations (trimming, adding shocks, round numbering, creating dummy vectors, interaction terms) for estimation. Produces files: SchoolingAdminDataUsedForEstimation.prn, AllMeetingsRepaymentAdminDataUsedForEstimation.prn, RepaymentAdminDataUsedForEstimation.prn, LivestockLongAdminDataUsedForEstimation.prn, LivestockLongAdminDataUsedForEstimation.prn, LivestockProductsAdminDataUsedForEstimation.prn, LabourIncomeAdminDataUsedForEstimation.prn, FarmIncomeAdminDataUsedForEstimation.prn, ConsumptionAdminDataUsedForEstimation.prn, OtherBorrowingAdminDataUsedForEstimation.prn.

```
[1] "s1" "arA" "ar" "ass" "lvo" "lvoL" "lvp" "lab" "far" "con" [11] "obr"
```

Check asset file entries. There are 797 households who respond at least once to asset questionnaire, but only 741 households respond at baseline (out of 800, response rate of 92.62%).

```
survey traditional large large grace cattle Sum
                    189
  1
               184
                                   189
                                          179 741
  2
                       10
                                           19 53
                14
                                    10
  3
                       1
                                             2
               198
                      200
                                   199
                                          200 797
```

Among which, if we drop the sample in traditional arm who receive the loan only twice, we have:

```
addmargins(table0(ass[0800 == 1L & !grep1("tw|dou", TradGroup) & hhid %in% hhid[survey==1],

.(Arm, tee = 1:.N), by = .(survey, hhid)][tee == 1, .(survey, Arm)]))
```

```
Arm
survey traditional large large grace cattle Sum
1 162 189 189 179 719
```

2	153	181	161	169	664
3	154	182	164	169	669
4	135	182	161	156	634
Sum	604	734	675	673	2686

Add BStatus etc. to all files and save as c:/data/GUK/analysis/save/EstimationMemo/RepaymentTrimmed.rds for example. It is trimmed as we keep only grepl("old|iRej|^g", Mstatus) and drop grepl("tw|dou", TradGroup).

Drop members who received only 2 loans (twice and double in TradGroup) and save as an estimating sample. Save: c:/data/GUK/analysis/save/EstimationMemo/RepaymentInitialSample.rds. Save: c:/data/GUK/analysis/save/EstimationMemo/RepaymentTrimmed.rds keeps all 800 members which will be used in attrition and randomisation tests.

```
AttritIn
Tee
          2
                            Sum
  1
         40
               0
                    0
  2
          0
              14
                    0
                         0
                             14
               0
  3
          0
                   37
                         0
                             37
  4
          0
               0
                    0 681 681
  Sum
         40
              14
                   37
                      681
```

TABLE 1: DATA TRIMMING RESULTS

file		old iRej ^g in		No tw dou in	
		Mstatus		TradGroup	
all rounds		Motatao		пааспоар	
s1	9007	\Rightarrow	6013	\Rightarrow	5677
arA	91344	\Rightarrow	66240	\Rightarrow	61200
ar	33223	\Rightarrow	24806	\Rightarrow	23210
ass	7869	\Rightarrow	5839	\Rightarrow	5437
lvo	7616	\Rightarrow	5661	\Rightarrow	5277
lvoL	22848	\Rightarrow	16983	\Rightarrow	15831
lvp	15964	\Rightarrow	11914	\Rightarrow	11088
lab	16004	\Rightarrow	12102	\Rightarrow	11307
far	589	\Rightarrow	411	\Rightarrow	391
con	5888	\Rightarrow	4360	\Rightarrow	4051
obr	7989	\Rightarrow	5958	\Rightarrow	5545
round 1 only					
s1	2582	\Rightarrow	1931	\Rightarrow	1827
arA	602	\Rightarrow	81	\Rightarrow	79
ar	2123	\Rightarrow	1600	\Rightarrow	1496
ass	1986	\Rightarrow	1486	\Rightarrow	1392
lvo	2073	\Rightarrow	1571	\Rightarrow	1467
ļvoL	2099	\Rightarrow	1595	\Rightarrow	1491
lvp	2097	\Rightarrow	1595	\Rightarrow	1491
ļab	2097	\Rightarrow	1593	\Rightarrow	1489
far	24	\Rightarrow	22	\Rightarrow	20
con	1980	\Rightarrow	1472	\Rightarrow	1369
obr 1 000	2097	\Rightarrow	1595	\Rightarrow	1491
original 800, ro	und I oi	•	064		027
s1	964	\Rightarrow	964	\Rightarrow	937
arA	33	\Rightarrow	33	\Rightarrow	33
ar	800 741	\Rightarrow	800 741	\Rightarrow	776 719
ass Ivo		\Rightarrow		\Rightarrow	761
lvoL	785 796	\Rightarrow	785 796	\Rightarrow	772
lvp	796 796	\Rightarrow \Rightarrow	796 796	\Rightarrow \Rightarrow	772
lab	796	$\overrightarrow{\Rightarrow}$	796	\Rightarrow	772
far	12	$\overrightarrow{\Rightarrow}$	12	\Rightarrow	12
con	741		741	\Rightarrow \Rightarrow	717
obr	796	⇒	796	⇒	772
ODI	170	\rightarrow	7,70	\rightarrow	112

Source: GUK survey data.

Notes: 1. Top panel is observations for all rounds. Middle panel is observations for round 1 only. Bottom panel is observations for original 800 households at round 1. old|iRej|^g in Mstatus are strings for old members, individual rejecters, group rejecters, group erosion. con|^dro|^rep in Mgroup indicates continuing, dropouts, replacing members. tw|dou in TradGroup are members who received loans twice and double amount in the 2nd loans. They are omitted from analysis because they are under a different treatment arm.

^{2.} ar lists all survey respondents, arA lists all loan recipients. There are 0 members in traditional arm who received loans twice, not three times. They will be omitted from ITT effects estimation. Consumption is sampled in round 2.

Tabulate number of obs in each files. Read: c:/data/GUK/analysis/save/EstimationMemo/AllMeetingsRepaym Tabulate number of obs in each files for original 800 households.

traditional	large large	grace	cattle	Sum	
168	192	171	177	708	
traditional	large large	grace	cattle	Sum	
168	191	170	176	705	

Table 2: Number of observations in each file at round 1 from HHs with single treatment

files	rounds	traditional	large	large grace	cattle	total
s1	1	728	622	618	614	2582
	2	610	501	452	496	2059
	3	555	474	433	449	1911
	4	488	427	393	388	1696
ar	1	605	504	507	507	2123
	2	590	491	457	485	2023
	3	583	487	453	473	1996
	4	539	482	447	442	1910
ass	1	602	503	506	505	2116
	2	588	490	457	483	2018
	3	580	484	452	463	1979
	4	497	457	416	381	1751
lvo	1	603	504	507	506	2120
	2	576	488	454	473	1991
	3	546	477	440	449	1912
	4	414	409	357	385	1565
lvp	1	601	504	507	507	2119
	2	588	491	457	485	2021
	3	581	487	453	472	1993
	4	538	483	447	444	1912
lab	1	601	504	507	507	2119
	2	588	491	457	485	2021
	3	581	487	453	472	1993
	4	534	481	443	433	1891
far	1	78	123	70	64	335
	2	35	68	39	30	172
	3	13	27	25	12	77
	4	2	1	2	1	6
con	2	590	490	457	484	2021
	3	581	484	453	470	1988
	4	536	477	435	428	1876
obr	1	1184	994	960	979	4117
	2	583	485	453	470	1991
	4	534	478	435	428	1875

Source: Estimated with GUK administrative and survey data.

Notes: 1. Sample is all households: Original 1600 and added households through new groups and individuals replacing opt-out members. All households in traditional arm who received more than one loan are excluded.

2.

Table 3: Number of observations in each file at round 1 from original 1600 HHs

files	rounds	traditional	large	large grace	cattle	total
s1	1	356	479	505	487	1827
	2	293	379	350	381	1403
	3	263	358	337	349	1307
	4	214	321	304	301	1140
ar	1	296	400	400	400	1496
	2	283	389	352	379	1403
	3	277	386	349	367	1379
	4	240	382	343	341	1306
ass	1	293	399	399	398	1489
	2	281	388	352	377	1398
	3	275	383	348	361	1367
	4	218	357	316	292	1183
lvo	1	294	400	400	399	1493
	2	274	386	349	368	1377
	3	256	377	339	350	1322
	4	183	317	282	303	1085
lvp	1	294	400	400	400	1494
_	2	283	389	352	379	1403
	3	277	386	349	366	1378
	4	240	382	343	342	1307
lab	1	294	400	400	400	1494
	2	283	389	352	379	1403
	3	277	386	349	367	1379
	4	240	381	342	340	1303
far	1	19	96	52	57	224
	2	5	51	28	27	111
	3	2	22	17	12	53
	4	2	1	2	1	6
con	2	283	388	352	378	1401
	3	276	383	349	365	1373
	4	238	377	331	331	1277
obr	1	577	788	751	777	2893
	2	276	384	349	365	1374
	4	238	378	331	331	1278

Notes: 1. Sample is original 1600 households who agree to join the group. This includes households who later dropped out due to flood, group rejections, and individual rejections. All original 1600 households are tracked but some attrit from the sample.

2.

Table 4: Number of observations in each file at round 1 from original 800 HHs

files	rounds	traditional	large	large grace	cattle	total
s1	1	232	246	251	235	964
	2	180	197	177	191	745
	3	164	185	165	173	687
	4	134	171	147	143	595
ar	1	200	200	200	200	800
	2	190	191	172	190	743
	3	188	193	174	190	745
	4	168	192	171	177	708
ass	1	198	200	199	200	797
	2	190	194	177	195	756
	3	186	191	174	188	739
	4	154	179	155	151	639
lvo	1	199	200	200	199	798
	2	186	194	175	188	743
	3	177	188	168	180	713
	4	135	166	142	160	603
lvp	1	199	200	200	200	799
	2	192	195	177	195	759
	3	188	193	174	190	745
	4	168	192	171	177	708
lab	1	199	200	200	200	799
	2	192	195	177	195	759
	3	188	193	174	190	745
	4	168	191	170	175	704
far	1	12	46	24	25	107
	2	4	26	13	10	53
	3	2	9	8	4	23
	4	1	1	1	1	4
con	2	192	194	177	195	758
	3	187	191	174	190	742
	4	167	188	165	172	692
obr	1	199	199	199	199	796
	2	190	191	171	190	742
	4	168	192	171	177	708

Notes: 1. Sample is original 800 households who agree to join the group. This includes households who later dropped out due to flood, group rejections, and individual rejections. All original 800 households are tracked but some attrit from the sample.

2.

Table 5: Number of observations in each file at round 1 from original $800~\mathrm{HHs}$ trimmed

files	rounds	traditional	large	large grace	cattle	total
s1	1	232	246	251	235	964
	2	180	197	177	191	745
	3	164	185	165	173	687
	4	134	171	147	143	595
ar	1	199	199	199	199	796
	2	190	190	171	189	740
	3	188	192	173	189	742
	4	168	191	170	176	705
ass	1	198	199	198	199	794
	2	190	193	176	194	753
	3	186	190	173	187	736
	4	154	179	155	151	639
lvo	1	199	199	188	199	785
	2	186	193	174	188	741
	3	177	187	168	180	712
	4	135	166	142	160	603
lvp	1	199	199	199	199	796
	2	192	194	176	194	756
	3	188	192	173	189	742
	4	168	191	170	176	705
lab	1	199	199	199	199	796
	2	192	194	176	194	756
	3	188	192	173	189	742
	4	168	191	170	175	704
far	1	12	46	24	25	107
	2	4	26	13	10	53
	3	2	9	8	4	23
	4	1	1	1	1	4
con	2	192	193	176	194	755
	3	187	190	173	189	739
	4	167	187	164	171	689
obr	1	199	199	199	199	796
	2	190	190	170	189	739
	4	168	191	170	176	705

Notes: 1. Sample is original 800 households who agree to join the group. This includes households who later dropped out due to flood, group rejections, and individual rejections. All original 800 households are tracked but some attrit from the sample.

2

This file reads data from a list data_read_in_a_list_with_baseline_patched.rds, merge all non-roster files with admin-roster, and saves in c:/data/GUK/analysis/save/EstimationMemo/.

I Summary

I.1 Definitions

(125*45*3) or, CumRepaid/(190*45*2)

Traditional A cash loan of Tk. 5600 with one year maturity. Repay Tk 125 * 45 weeks = 5625 each year for 3 years.

Large A cash loan of Tk. 16800 with three year maturity. Repay Tk 125 * 45 weeks * 3 years = 16875

Large Grace A cash loan of Tk. 16800 with a one year grace period and three year maturity. Repay Tk 190 * 45 weeks * 2 years = 17100.

Cow An in-kind loan of a cow worth Tk. 16800 with a one year grace period and three year maturity. Repay Tk 190 * 45 weeks * 2 years = 17100.

LargeSize An indicator variable takes the value of 1 if the arm is Large, Large Grace, or Cow.

WithGrace An indicator variable takes the value of 1 if the arm is Large Grace or Cow.

InKind Same as Cow.

When one uses covariates Large, Large Grace, Cow in estimation, their estimates represent each arm's characteristics relative to Traditional. When one uses covariates LargeSize, WithGrace, InKind, their estimates represent their labeled names.

I.2 Inference

- First-difference estimators are used. This can be seen as an extension of DID to multi-periods (although historically the latter precedes the former). FD is used also for a binary indicator such as schooling.
- All the standard errors are clustered at the group (char) level.
- To aid the understanding if the data is more suited to the assumption of first-difference rather than fixed-effects, I used a check suggested by Wooldridge (2010, 10.71). It is an AR(1) regression of FD residuals. Most of results show low autocorrelations which is consistent with the assumption of FD estimator. The use of cluster-robust standard errors gives consistent estimates of SEs, so it boils down to efficiency.
- I rely more on the formulation using LargeSize, WithGrace, InKind than Large, LargeGrace, Cow due to an ease in interpretation. Numerically, both are equivalent.
- A caution on reading the estimates: All are estimates on increments. If LargeSize has an estimate of 10, then it is a 10 unit larger change than the baseline (traditional). If the interaction of LargeSize with rd 2-3 is 10, then it is a 10 unit larger change than rd 2-3 change of baseline. If the estimated value of intercept is 10 and rd 2-3 is 10, then rd 2-3 change is 20 for baseline, 30 for LargeSize.

I.3 Findings

Overall, the intervention reveals that larger sized loans accerelate the timing of becoming an owner of large livestock without adversely affecting the repayments. This applies to both the ultra poor and the moderately poor. A loan amount seems to have convex returns at a low level of assets. Higher growths come at a cost of slower school progression of older girls and smaller increases in consumption for the arm of in-kind, so the welfare implication is mixed. In addition, given that the number of cows per owner remains the similar after 2 years, it does not provide evidence for accelerated growth of livestock after becoming an owner in this short window. Another note is that the loan repayment was poor for unknown reasons so, in the hindsight, the risks required a higher margin for this type of lending to the target population, which could have reduced participation.

Net saving and repayments Sample uses administrative records of all borrowers in the original 800 households. Smaller net saving for traditional arm. Period of rds 2, 3 saw a positive net saving, then became negative in rd 4 for LargeGrace, Cow. Repayment is greater for Large, LargeGrace, Cow in rds 2, 3. In rd 4, repayment of Large becomes statistically the

same with Traditional while LargeGrace, Cow are greater (Table ??). Table ?? (1) reveals LargeSize have larger net saving while (2) shows WithGrace has a faster decline in rds 2, 3, 4. Repayment is larger with LargeSize but smaller with WithGrace in (3). (4) shows rd 2-3 have larger repayment for WithGrace, which is by design. Repayment is positively autocorrelated and is negatively correlated with previous net saving. The ultra poor repaid just as much as the moderately poor, (Table ??). This is evidence against the popular belief that the ultra poor are riskier.

Schooling Enrollment changes are larger for primary school girls in Large and Cow arms for primary but smaller for junior in rd 1 vs rd 4 comparisons (Table 16). When seen by attributes in Table 17, LargeSize shows smaller changes especially for primary school boys. Primary school girls in LargeSize and InKind show larger changes, while junior and high school girls in LargeSize show smaller changes than boys. This indicates that large sized arms have detrimetal impacts on older girls' schooling but promotional impacts on primary school aged girls. No decline in enrollment changes when repaying for the arms of WithGrace, despite the larger installments.

Assets Household assets increased in all arms. Asset values initially increased then decreased, but do not fully cancel out and remain increased. There might have been liquidation of assets to repay the loans. Productive assets declined consecutively. Flood in rd 1 makes the increase in household assets smaller. Productive assets see a major decline among Large during rd 3-4 period (Table ??). Comparison by attributes (Table ??) or of rd 2 and rd 4 gives the same picture (Table ??). Comparison against the loan non-recipients shows that they also experience a similar, increase-increase-decrease pattern. This indicates that the pattern observed among the loan recipients may be a systemic pattern of the area, not necessarily reflecting the repayment burdern (Table ??). Comparison of productive asset holding of loan recipients (Figure ??) and loan nonrecipients (Figure ??) reveals that productive asset holding declined at the top end of loan nonrecipients in all arms (they only save or left the program). This indicates that the decline in productive asset holding among the loan recipients are not due to the repayment burden but a general pattern of the area.

Livestock Larger increases in holding values in rd 1-2, smaller increases in rd 2-3, no change in rd 3-4. Previous cow owners show a smaller increase in rd 1-2 while not rd 3-4 or rd 2-3 in the Cow arm (Table ??). Figures show that cow ownership increased for all arms but the traditional arm (see Figure ??). Table ?? shows baseline trend is a large increse in rd 1-2, a small increase in rd 2-3, a small decline in rd 3-4, while LargeSize sees an even larger increase in rd 1-2 and similar trend as baseline afterwards. This shows that member who received a larger sized disbursement could hold on to its level of livestock accumulation. Table ?? shows, albeit at *p* values around 10%, the ultra poor has a larger increase relative to the moderately poor, which is another manifestation against the popular notion that the ultra poor are riskier.

Total asset values Similar resulsts as assets.

Labour incomes Small sample. Increased during rd 2-3 in all arms (TABLE ??).

Consumption Increased during rd 2-3 in all arms, a decrese in rd 3-4 (Table ??). Another notable result is that InKind reduced the consumption in rd 3-4 even further than the baseline loan (Table ??).

IGAs Multiple IGAs for Tradtional arm. Everyone else chose to invest in cows, suggesting entrepreneurship does not seem to matter in the uptake of loans. It is consistent with the presence of a poverty trap induced by a liquidity constraint and convexity in livestock production technology.

Project choice Traditional arm has a smaller rate of second investments, and second investment

amounts are generally smaller (Figure 45). This confirms that most of Traditional arm members do not use own fund to increase the size of investments even after a few years into the program.

One sees changes in investment choices when one compares traditional and all other arms. However, consumption does not seem to differ. Repayments and asset holding are greater in all other arms. These are consistent with households are enforcing the repayment disciplines and reinvesting the proceeds rather than increasing consumption.

II Define initial sample

Initial Sample is marked as the members with o800==1. This is derived from Trimmed Sample and is produced by dropping 26 HHs of traditional arm. (Drop members who received only 2 loans (twice and double in TradGroup) and save as an estimating sample. Save: c:/data/GUK/analysis/save/EstimationMemo/RepaymentInitialSample.rds. Save: c:/data/GUK/analysis/save/EstimationMemo/RepaymentTrimmed.rds keeps all 800 members which will be used in attrition and randomisation tests.)

```
AttritIn
Тее
                9 Sum
     2 3
             4
 1
     40
        0 0 0 40
 2
      0 14 0 0 14
      0
        0 37 0 37
 3
        0
            0 681 681
 4
      0
 Sum
     40
        14
           37 681 772
```

The study followed the stepped wedge design within each group due to administrative and budgetary constraints. Our initial identification strategy was comaprison between arms and did not use the stepped wedge design to estimate impacts because of possible spillovers within a group and a relatively short period for outcomes to change before the control gets treated [We can estimate within-group, we may just have underestimated impacts]. A half of members in a group, approximately 800 in total, are assigned initially as the treated and then the rest was treated in the following months. So the number of the treated increased as time passes.

We restrict ourselves to this initial 800 members in estimating the impacts. We do so because of possible spill overs within groups. We compare between arms, not individuals in a group. One can see how impacts may differ if we compare between-group and within-group estimates. Such comparison is left as future exercises.

We will add a binary indicator function o800 to indicate the initial sample. In below, we first use the roster-administrative data to choose the households of o800, because it has the most complete record. Then, I look for these households in other files and create o800 variable in them.

Correct NAs in LoanYear to -1 when members start repayment before disbursement.

II.1 Descriptive statistics

The majority of descriptive statistics are related to assets. We base our descriptive statistics on the asset data.

```
Number of obs by Arm and attrition
          AttritIn
Arm
            2 3 4
                        9 Sum
 traditional 6 4 20 144 174
            5 2 1 191 199
 large
 large grace 22 3
                   3 170 198
 cattle
            5 5 13 176 199
            38 14 37 681 770
 Sum
Number of obs by membership status and attrition
                   AttritIn
                            4 9 Sum
BStatus
                     2 3
 borrower
                         6 8 575 597
 pure saver
                     0
                         0
                            0
                                  11
```

```
individual rejection 9 4 1 75 89
group rejection 9 4 0 55 68
rejection by flood 12 0 28 0 40
Sum 38 14 37 705 794
```

```
Error in eval(ei, envir): オブジェクト 'NeA1R8' がありません
```

There are 24 members with TradGroup = twice, double. They were dropped from estimation sample. If UseTrimmedSample==T, attrition is based on all 800 members, if F, attrition is analysed using 776 members. We use the 'initial' sample (has only 776 members after dropping members who received loans only twice), not the 'trimmed' sample (has all 800 members).

```
if (!UseTrimmedSample) ar ← ar[!grepl("tw|dou", TradGroup), ]
addmargins(table0(ar[o800 == 1L & tee == 1, .(Tee, AttritIn)]))
```

```
AttritIn
Tee
      2 3
             4
                 9 Sum
 1
     40
         0
             0
                 0 40
               0 14
 2
      0 14
            0
      0 0 37 0 37
 3
        0 0 681 681
      0
 Sum
     40 14 37 681 772
```

Out of 772 members, there are 91 members who attrited.

```
AttritIn
BStatus
                      2 3 4 Sum
 borrower
                      8 6 8
                             22
                      0
                        0
                              0
 pure saver
                           0
 individual rejection 9
                        4
                           1
                               14
 group rejection
                     11
                         4
                           0
                              15
 rejection by flood
                     12 0 28
                              40
                     40 14 37
 Sum
                               91
```

```
AttritIn
Arm
            2 3 4
                       9 Sum
            7 4 20 144 175
 traditional
 large
            5
               2
                   1 191 199
 large grace
            23
               3
                   3 170 199
 cattle
            5
               5
                  13 176 199
           40 14 37 681 772
 Sum
```

```
Attrited

Arm 0 1 Sum
traditional 144 31 175
large 191 8 199
large grace 170 29 199
cattle 176 23 199
Sum 681 91 772
```

TABLE 6: BASELINE DESCRIPTIVE STATISTICS BY ARM FOR ALL HOUSEHOLDS INCLUDING NONPARTICIPANTS

2204111112			ILLE IIO COL		
Variable	Traditional	Large	Large grace	Cattle	Overall
HeadLiteracy		0.111	0.106	0.151	0.117
	(0.297)	(0.314)	(0.308)	(0.359)	(0.321)
HeadAge	38.477 (10.124)	37.452 (10.189)	38.376 (9.283)	38.015 (10.746)	38.066 (10.087)
HHsize	,	4.302	4.241	4.121	4.193
11110120	(1.449)	(1.507)	(1.495)	(1.369)	(1.456)
FloodInRd1	0.463	0.618	0.407	0.497	0.497
	(0.500)	(0.487)	(0.493)	(0.501)	(0.500)
NLHAssetAmoun	t 1428	1244	1308	1546	1378
	(922)	(714)	(692)	(1170)	(898)
PAssetAmount	t 1020	1232	2031	1032	1335
	(1724)	(2335)	(9387)	(2577)	(5127)
TotalImputedValue	4343	6131	5319	4121	4993
	(11116)	(13802)	(13139)	(10304)	(12195)
NumCows	0.217	0.307	0.266	0.206	0.250
	(0.556)	(0.690)	(0.657)	(0.515)	(0.610)
NetValue	8011	9550	9677	5811	8273
	(14877)	(15314)	(21603)	(11658)	(16255)
BroadNetValue	9012	10312	9894	7115	9093
	(15030)	(15556)	(21460)	(12817)	(16498)
Attrited	0.177	0.040	0.146	0.116	0.118
	(0.383)	(0.197)	(0.354)	(0.321)	(0.323)
IRejected	0.171	0.045	0.065	0.186	0.115
	(0.378)	(0.208)	(0.248)	(0.390)	(0.320)
GRejected	0.229 (0.421)	0.101 (0.301)	0.050 (0.219)	0.000 (0.000)	0.091 (0.287)
Non-attriting borrowers	0.474 (0.501)	0.819 (0.386)	0.799 (0.402)	0.734 (0.443)	0.714 (0.452)
RiskPrefVa	115	108	114	110	111
	(31)	(32)	(36)	(32)	(33)
TimePref1Va	374	374	377	409	384
	(132)	(152)	(147)	(141)	(144)
TimePref2Va	483	486	477	512	490
	(127)	(137)	(156)	(121)	(136)
PresentBias	0.470	0.453	0.482	0.455	0.464
	(0.501)	(0.499)	(0.501)	(0.499)	(0.499)
N	l 175	199	199	199	772

Source: Estimated with GUK administrative and survey data at the baseline. Survey respondents include nonparticipants to the experiments.

Notes: 1. Information of original 800 households. Values are means, values in brackets are standard deviations.

II.2 Changes in assets

After winsorising cassette players, radios, and bicycles, there is no HH with anomalous asset values (changes in narrow net asset values < -50000).

	Arm	hhid	t	type	amount	Н	ВН	NLHAssetNum
1:	traditional	8169717	1	tubewell	1500	1500	1500	1
2:	traditional	8169717	2	tubewell	1600	1600	7600	1
3:	traditional	8169717	2	residential land	6000	1600	7600	1
4:	traditional	8169717	3	tubewell	1200	82600	121600	3
5:	traditional	8169717	3	almirah/cabinet	2600	82600	121600	3
6:	traditional	8169717	3	jewelry	400	82600	121600	3
7:	traditional	8169717	3	mobile phone	1400	82600	121600	3

² HeadLiteracy, HeadAge are literacy and ages of household heads. HHsize is total number of household members. Flood-InRd1 is flood exposure at baseline. NLHAssetAmount is non-land household asset holding value, PAssetAmount is productive asset holding value, TotalImputedAmount is imputed value of livestock holding. NumCows is cattle holding per household. NetValue is net asset values per household for asset items observed in all 4 rounds given by NLHAssetAmount+PAssetAmount+TotalImputedAmount - total debt. BroadNetValue is net asset values per household for all asset items. All asset values are expressed in BDT. Attrited indicates attrition rates in the household survey, and GRejected and IRejected show group rejection rates and individual rejection rates to the lending program. Active indicates the nonattrited borrower ratios. Because attrition and rejection are separate events, a household can reject and attrit, so active members ≥ total - (rejected members + attrited members). RiskPrefVal is the respondent's choice of the acceptable minimum excess monetary value of the risky option over a certainty option. Lower values indicate a greater risk tolerance. TimePref1val is the respondent's choice of the acceptable minimum excess monetary value in 3 months that is no smaller than present monetary benefit, and TimePref2val is the the minimum excess value in 1 year and 3 months that is no smaller than monetary benefits of 1 year from now. Lower values indicate a greater patience. If a respondent's TimePref1val is greater than TimePref2val, the respondent is considered to be present-biased. PresentBias is an indicator function that takes the value of 1 if the respondent is considered to be present-biased, 0 otherwise.

8:	traditional	8169717	3	residential land	36000	82600	121600	3
9:	traditional	8169717	3	rickshaw/van	80000	82600	121600	3
10:	traditional	8169717	4	tubewell	400	3300	46400	3
11:	traditional	8169717	4	almirah/cabinet	2500	3300	46400	3
12:	traditional	8169717	4	jewelry	600	3300	46400	3
13:	traditional	8169717	4	residential land	40000	3300	46400	3
14:	traditional	8169717	4	bicycle	2500	3300	46400	3
15:	traditional	8169717	4	mobile phone	400	3300	46400	3

II.3 Error bar graphs of outcomes

2.0 **-**1.5 **-**1.0 **-**0.5 3000 -2000 -1000 -30000 -20000 -10000 -30000 -20000 -10000 -50000 **-**40000 **-**30000 **-**20000 **-**20000 **-**10000 **-**3000 values 2750 -2500 -2250 -40000 -20000 -0 • 12000 -8000 -4000 -0 --4000 **-**1.0 **-**0.9 **-**0.8 **-**0.7 **-**0.6 **-**1.00 -0.75 -0.50 -1.5 **-**1.0 **-**0.5 **-**0.0 --0.5 periods Groups ♦ Male ♦ Female

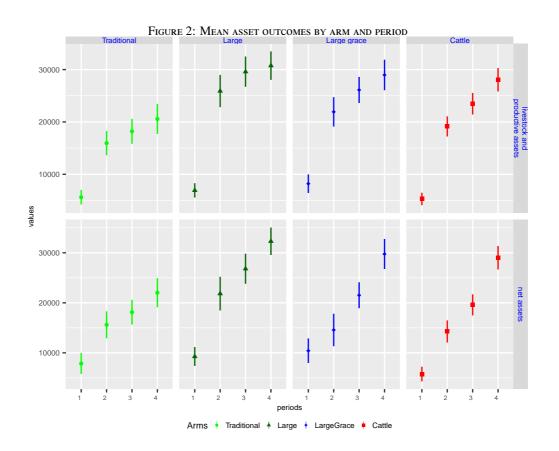
Per household

FIGURE 1: MEAN OUTCOMES BY ARM AND PERIOD

Survey data.

Source:

Points indicate means, vertical bars indicate 95% confidence intervals. NumCows is number of cattle owned. NetValue is net asset values per housheold for asset items observed in all 4 rounds. Consumption is annualised per capita consumption in Taka. Per capita consumption is a total of food, hygiene, social, and energy expenditure divided by the number of household members. In-kind consumption of home made products is imputed at median prices. HHlncomes is labour incomes of household, pcHHlncomes is per capita housheold labour incomes. Sch0512, Sch1315, Sch1618 are enrollment at primary, secondary, and tertiary levels. Female and Male are female and male enrollment, respectively.



Source: Survey data.

Note:

Points indicate means, vertical bars indicate 95% confidence intervals. NetAssets is total assets less debt outstanding to all sources. Livestock and productive assets is total assets less household assets and debt outstanding to all sources.

3000 - 2750 - 2500 - 2250 - 40000 - 4000 - 4000 - 4000 - 12000 - 4000 - 12000 - 4000 - 12000 - 4000 - 12000 -

Figure 3: Mean income and consumption outcomes by arm and period

Source: Survey data.

Note: Points indicate means, vertical bars indicate 95% confidence intervals. Consumption is annualised per capita consumption in Taka. Per capita consumption is a total of food, hygiene, social, and energy expenditure divided by the number of household members. In-kind consumption of home made products is imputed at median prices. Incomes is labour incomes of household in 1000 Taka units.

LargeGrace

Large

Arms •

Traditional

II.4 Graphs of repayments

In Table 10, one sees that later receivers of large grace and cattle arm members could prepare better by saving before disbursement.

```
Number of obs by Arm and attrition
             AttritIn
              2 3 4 9 Sum
Arm
 traditional 6 4 20 144 174 large 5 2 1 191 199
 traditional
 large grace 22 3 3 170 198
 cattle 5 5 13 176 199
Sum 38 14 37 681 770
Number of obs by membership status and attrition
                       AttritIn
BStatus
                          2 3
                                  4 9 Sum
                          8 6 8 575 597
 borrower
                         0 0 0 0
 pure saver
 individual rejection 9 4 1 75 89
 group rejection 9 4 0 55 68 rejection by flood 12 0 28 0 40 Sum 38 14 37 705 794
```

```
Error in eval(ei, envir): オブジェクト 'NeA1R8' がありません
```

One also sees that traditional has lower repayment rates in the 2nd and 3rd loan years. This can be due to lower returns on small assets, or, moral hazard that they get new disbursements irrespective of loan delinquency.

```
ar : Number of member entries are less than 12 per year (good).

[1] "Year" "LoanYear" "MtgYear" "LYear"

arA : Number of member entries are less than 12 per year (good).

[1] "Year" "LoanYear" "MtgYear" "LYear"

arACompletePanel : Number of member entries are less than 12 per year (good).

[1] "Year" "LoanYear" "MtgYear" "LYear"
```

One may worry if flood affected repayments. Split sample into flood affected and unaffected. Affected by flood does not seem to change the repayment numbers.

```
ar arA
Flood dummy = 0

variables traditional large large grace cattle stat

1: repay in Loan Year-1 56.47 35.57 0.00 0.00 sum

2: repay in Loan Year1 3238.29 4253.51 566.28 597.21 sum

3: repay in Loan Year2 2218.53 3924.16 4998.00 4973.81 sum

4: repay in Loan Year3 2046.90 3836.48 5403.50 4679.49 sum

5: repay in Loan Year4 3046.93 2820.97 3031.19 2764.97 sum

6: Total repayment 10607.12 14870.69 13998.96 13015.47 sum

Flood dummy = 1

variables traditional large large grace cattle stat

1: repay in Loan Year-1 41.30 50.65 0.00 0.00 sum

2: repay in Loan Year-1 3244.31 4355.89 528.25 497.85 sum

3: repay in Loan Year2 2052.53 3716.43 4879.90 4303.48 sum

4: repay in Loan Year3 1920.05 3813.12 5007.63 4362.31 sum

5: repay in Loan Year4 3190.27 3259.28 2787.62 4714.35 sum
```

6: Total repayment arACompletePanel Flood dummy = 0	10448.48	15195.37	13203.41	13878.00	sum
	traditional	10000	12550 5500	00++10	0 + 0 +
	traditional	_			
1: repay in Loan Year-1					sum
2: repay in Loan Year1	2941.92	4347.92	590.32	494.34	sum
3: repay in Loan Year2	2104.38	3927.98	5139.65	5210.10	sum
4: repay in Loan Year3	2004.32	3972.16	5451.62	5197.27	sum
5: repay in Loan Year4	3126.27	2625.90	3052.12	2553.86	sum
6: Total repayment	10232.21	14914.50	14233.71	13455.58	sum
Flood dummy = 1					
variables	traditional	large	large grace	cattle	stat
1: repay in Loan Year-1	12.50	55.75	0.00	0.00	sum
2: repay in Loan Year1	3399.77	4511.78	526.88	572.72	sum
3: repay in Loan Year2	2580.30	3827.31	4804.22	4219.91	sum
4: repay in Loan Year3	2220.68	3858.15	4630.91	3776.60	sum
5: repay in Loan Year4	3371.37	3057.95	2818.86	4915.04	sum
6: Total repayment	11584.61	15310.94	12780.87	13484.27	sum

Combine descriptive statistics and produce LATEX tables.

Table 7: Descriptive statistics by arm for all households including nonparticipants

variables	traditional	large	large grace	cattle
Head Literacy	0.10	0.11	0.11	0.15
Head Age	38.48	37.45	38.38	38.02
Household size	4.10	4.30	4.24	4.12
Flood in round 1	0.46	0.62	0.41	0.50
Repaid amount in Loan Year1	1146	1244	0	0
Repaid amount in Loan Year2	348	944	1960	1553
Repaid amount in Loan Year3	1006	1743	2293	2074
Repaid amount in Loan Year4	3507	3046	2327	3201
Total repaid sum	6007	6976	6580	6828
Net saving + repaid amount in Loan Year1	1330	1502	1464	682
Net saving + repaid amount in Loan Year2	482	1124	2062	1641
Net saving + repaid amount in Loan Year3	1196	1811	2361	2194
Net saving + repaid amount in Loan Year4	3596	3257	2355	3447
Net saving + total repaid sum	6604	7695	8242	7965
Number of members	175	199	199	199

Source: Estimated with GUK administrative and survey data. Based on data ar which has all survey respondents. Survey respondents include nonparticipants to the experimental part of study.

Notes: 1. Information of original 776 households. Net saving as percentage of loan amount is a mean over loan recipients whose first disbursement is in 2013. Effective repayment is a sum of repayment and net saving.

Table 8: Descriptive statistics by arm for borrowers

variables	traditional	large	large grace	cattle
Head Literacy	0.12	0.11	0.10	0.14
Head Age	38.46	37.95	38.62	38.12
Household size	4.12	4.37	4.17	4.08
Flood in round 1	0.52	0.58	0.36	0.50
Net saving (% of loan) in 2013	4.40	4.04	5.46	6.67
Repaid amount in Loan Year-1	119	70	0	0
Repaid amount in Loan Year1	4178	5046	518	455
Repaid amount in Loan Year2	1938	3279	5553	5035
Repaid amount in Loan Year3	2571	4065	6466	6074
Repaid amount in Loan Year4	3344	3138	2941	3546
Total repaid sum	12151	15597	15478	15110
Net saving + repaid amount in Loan Year-1	405	929	913	1181
Net saving + repaid amount in Loan Year1	4806	5915	2562	2546
Net saving + repaid amount in Loan Year2	2401	3842	5986	5457
Net saving + repaid amount in Loan Year3	3067	4585	6803	6428
Net saving + repaid amount in Loan Year4	3633	3381	3075	3723
Net saving + total repaid sum	14312	18652	19340	19334
Number of loan receiving members	139	179	179	189

Source: Estimated with GUK administrative and survey data. Based on arA which has only borrowers and does not include nonparticipants.

Notes: 1. Information of borrowing members among original 776 households. Net saving as percentage of loan amount is a mean over loan recipients whose first disbursement is in 2013. Effective repayment is a sum of repayment and net saving.

2. Loan year -1 is preparation period for loan disbursement when only saving is allowed.

TABLE 9: DESCRIPTIVE STATISTICS BY ARM FOR BORROWERS, COMPLETE PANEL

variables	traditional	large	large grace	cattle
Head Literacy	0.15	0.11	0.16	0.16
Head Age	39.65	38.76	37.96	38.63
Household size	4.60	4.70	4.48	4.36
Flood in round 1	0.48	0.50	0.31	0.42
Net saving (% of loan) in 2013	5.62	3.72	4.47	6.27
Repaid amount in Loan Year-1	84	66	0	0
Repaid amount in Loan Year1	4047	5190	587	462
Repaid amount in Loan Year2	2209	3559	5765	5397
Repaid amount in Loan Year3	2776	4081	6506	6234
Repaid amount in Loan Year4	3449	2791	2968	3079
Total repaid sum	12565	15687	15826	15171
Net saving + repaid amount in Loan Year-1	452	860	671	1010
Net saving + repaid amount in Loan Year1	4717	6066	2509	2629
Net saving + repaid amount in Loan Year2	2692	4149	6205	5821
Net saving + repaid amount in Loan Year3	3303	4602	6867	6601
Net saving + repaid amount in Loan Year4	3746	3070	3143	3240
Net saving + total repaid sum	14909	18747	19394	19302
Number of loan receiving members	60	108	93	91

Source: Estimated with GUK administrative and survey data. Based on arACompletePanel which has only non-attriting members who were surveyed at baseline.

Notes: 1. Information of borrowing members among original 776 households. Net saving as percentage of loan amount is a mean over loan recipients whose first disbursement is in 2013. Effective repayment is a sum of repayment and net saving.

2. Loan year -1 is preparation period for loan disbursement when only saving is allowed.

Table 10: Descriptive statistics by arm for all members and borrowing members

variables	traditional	large	large grace	cattle
All members				
Head Literacy	0.10	0.11	0.11	0.15
Head Age	38.48	37.45	38.38	38.02
Household size	4.10	4.30	4.24	4.12
Flood in round 1	0.46	0.62	0.41	0.50
Number of members	175	199	199	199
Only loan receiving members				
Head Literacy	0.12	0.11	0.10	0.14
Head Age	38.46	37.95	38.62	38.12
Household size	4.12	4.37	4.17	4.08
Flood in round 1	0.52	0.58	0.36	0.50
Net saving (% of loan) in 2013	4.40	4.04	5.46	6.67
Repaid amount in Loan Year-1	119	70	0	0
Repaid amount in Loan Year1	4178	5046	518	455
Repaid amount in Loan Year2	1938	3279	5553	5035
Repaid amount in Loan Year3	2571	4065	6466	6074
Repaid amount in Loan Year4	3344	3138	2941	3546
Total repaid sum	12151	15597	15478	15110
Net saving + repaid amount in Loan Year-1	405	929	913	1181
Net saving + repaid amount in Loan Year1	4806	5915	2562	2546
Net saving + repaid amount in Loan Year2	2401	3842	5986	5457
Net saving + repaid amount in Loan Year3	3067	4585	6803	6428
Net saving + repaid amount in Loan Year4	3633	3381	3075	3723
Net saving + total repaid sum	14312	18652	19340	19334
Number of loan receiving members	139	179	179	189

Source: Estimated with GUK administrative and survey data. Based on data ar which has all survey respondents.

Note: All members are 776 households. Survey respondents include nonparticipants to the experimental part of study.

III Estimation using initial sample HHs

III.1 Repayment and net saving

In estimating impacts on repayment and saving, we use borrower only data arA.

```
used (Mb) gc trigger (Mb) max used (Mb)
Ncells 1127661 60.3 2257001 120.6 2257001 120.6
Vcells 61630004 470.2 101624854 775.4 84620509 645.7
```

```
Warning in `[.data.table`(ux, , `:=`(grepout("^dummy.*dummyHad|HadCows\\.", : length(LHS):
```

By survey rounds, in repayment and saving file, there are 28, 558, 552, 551 observations of households in rounds 1, 2, 3, 4, respectively. This is smaller than the InitialSample size of 796 in the survey roster file because the survey includes rejecters and residents whose houses are washed away by flood, while repayment is defined only for the borrowers.

Saving started in rd 1. Repayment and saving are more frequent than survey rounds. In repayment and saving regressions, we aggregate the data at survey rounds. This is because we have no household survey information at the monthly frequency that we can attribute the causes of monthly repayment and saving fluctuations.

TABLE 11: INITIAL SAMPLE BY ARM IN ADMINISTRATIVE DATA

			<u>initial sample</u>	<u> </u>		all sample						
	traditional	large	large grace	cattle	total	traditional	large	large grace	cattle	total		
borrower	85	170	166	152	573	123	348	338	308	1117		
pure saver	0	0	0	0	0	0	0	0	0	0		
individual rejection	30	9	13	37	89	53	12	22	72	159		
group rejection	40	20	10	0	70	80	40	20	0	140		
rejection by flood		0	10	10	40	40	0	20	20	80		
total	175	199	199	199	772	296	400	400	400	1496		

Source: Estimated with GUK administrative and survey data.

Notes: 1. Number of individuals who received a loan/cow. Left panel are initial 800 members who were offered at the first round, including individuals who declined or left the group. Right panel also includes members who were offered on a later date.

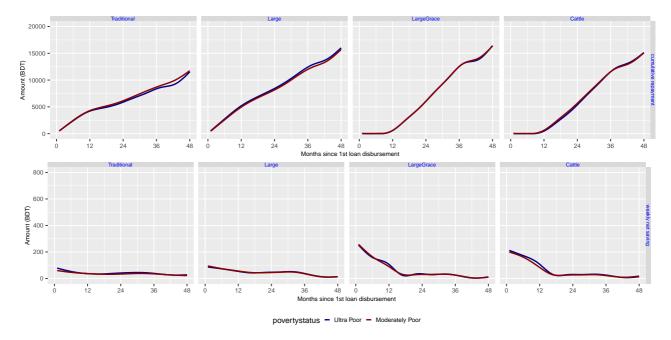


Figure 4: Weekly net saving and cumulative repayment

TABLE 12: INITIAL SAMPLE BY ARM IN REPAYMENT DATA

			initial sample	•		all sample						
	traditional	large	large grace	cattle	total	traditional	large	large grace	cattle	total		
borrower	85	170	166	152	573	96	348	338	308	1090		
pure saver	. 0	0	0	0	0	26	0	0	0	26		
individual rejection	30	9	13	37	89	53	12	22	72	159		
group rejection	0	0	0	0	0	0	0	0	0	0		
rejection by flood	0	0	0	0	0	0	0	0	0	0		
total	115	179	179	189	662	175	360	360	380	1275		

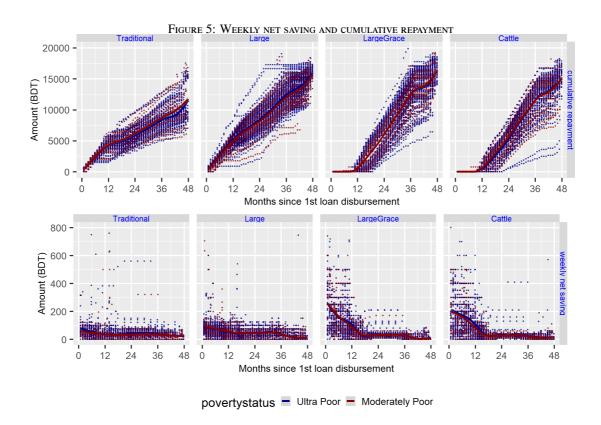
Notes: 1. Number of individuals who received a loan/cow. Left panel in TABLE 12 is initial 800 members who were offered at the first round, including individuals who declined or left the group. Right panel also includes members who were offered on a later date.

Table 11 shows the tabuation of InitisalSample by arms. Left panel are InitialSample including borrowers, pure savers, group rejecters, flood victims, and members who left the group. Right panel includes late borrowers who were initially assigned as the control. One can see that traditional arm members have the highest proportion of group-rejecters and individual rejecters. This shows stronger reluctance of traditional arm members in borrowing the small loans.

Read administrative meeting data attached with HH information AllMeetingsRepayment (arA). Note all binary interaction terms are demeaned and then interacted.

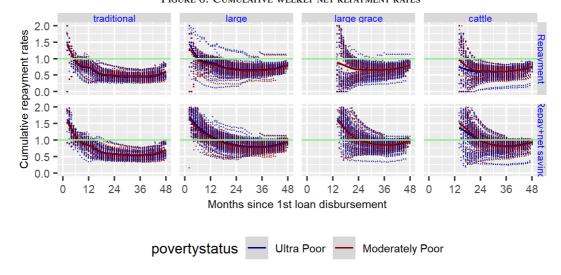
Tabulation at rd 1 (12th month):

	Arm					
Mstatus	traditional	large	large	grace	cattle	Sum
gErosion	0	0		0	0	0
gRejection	0	0		0	0	0
iRejection	0	0		0	0	0
iReplacement	0	0		0	0	0
newGroup	0	0		0	0	0
oldMember	85	170		166	152	573
Sum	85	170		166	152	573



Note: Each dot represents weekly observations. Only members who received loans are shown. Each panel shows weekly net saving (saving - withdrawal) or cumulative repayment against weeks after first disbursement. Lines are smoothed lines with a penalized cubic regression spline in ggplot2::geom_smooth function, originally from mgcv::gam with bs='cs'.

FIGURE 6: CUMULATIVE WEEKLY NET REPAYMENT RATES



Note: Each dot represents weekly observations. Only members who received loans are shown. Each panel shows ratios of cumulative repayment against cumulative due amount, sum of cumulative repayment and cumulative net saving (saving - withdrawal) against cumulative due amount, against weeks after first disbursement. Lines are smoothed lines with a penalized cubic regression spline in goolot2: geom_smooth function_originally from macv: gam with bs='cs'

|要求されたパッケージ sandwich をロード中です

要求されたパッケージ lmtest をロード中です

Warning: パッケージ 'lmtest' はバージョン 4.1.3 の R の下で造られました

要求されたパッケージ zoo をロード中です

Warning: パッケージ 'zoo' はバージョン 4.1.3 の R の下で造られました

```
次のパッケージを付け加えます
 : 'zoo'
以下のオブジェクトは
  'package:base' からマスクされています:
    as.Date, as.Date.numeric
[1] excl
[[1]]
NetSaving ~ dummyLarge + dummyLargeGrace + dummyCattle
[[2]]
NetSaving ~ LY2 + LY3 + LY4 + dummyLarge + dummyLargeGrace +
    dummyCattle
[[3]]
NetSaving ~ dummyLarge + dummyLargeGrace + dummyCattle + NetSaving0
[[4]]
NetSaving \sim LY2 + LY3 + LY4 + dummyLarge + dummyLargeGrace +
    dummyCattle + NetSaving0
[[5]]
NetSaving \sim FloodInRd1 + LY2 + LY3 + LY4 + dummyLarge + dummyLargeGrace +
    dummyCattle + HeadLiteracy0 + HHsize0 + NetSaving0
[[6]]
Repaid ~ dummyLarge + dummyLargeGrace + dummyCattle
Repaid ~ LY2 + LY3 + LY4 + dummyLarge + dummyLargeGrace + dummyCattle
[[8]]
Repaid ~ dummyLarge + dummyLargeGrace + dummyCattle + Repaid0
[[9]]
Repaid ~ LY2 + LY3 + LY4 + dummyLarge + dummyLargeGrace + dummyCattle +
   Repaid0
[[10]]
Repaid ~ FloodInRd1 + LY2 + LY3 + LY4 + dummyLarge + dummyLargeGrace +
    dummyCattle + HeadLiteracy0 + HHsize0 + Repaid0
[[11]]
Repaid ~ FloodInRd1 + LY2 + LY3 + LY4 + dummyLarge + dummyLargeGrace +
    dummyCattle + HeadLiteracy0 + HHsize0 + Repaid0 + NetSaving0
[1] exclP
\Gamma\Gamma111
NetSaving ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
```

NetSaving ~ LY2 + LY3 + LY4 + dummyUltraPoor + dummyLargeSize +
dummyWithGrace + dummyInKind + dummyLargeSize.UltraPoor +

```
dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
NetSaving ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NetSaving0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[4]]
NetSaving ~ LY2 + LY3 + LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + NetSaving0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
NetSaving ~ FloodInRd1 + LY2 + LY3 + LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HeadLiteracy0 + HHsize0 +
    NetSaving0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[6]]
Repaid ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[7]]
Repaid \sim LY2 + LY3 + LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[8]]
Repaid ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    Repaid0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[9]]
Repaid ~ LY2 + LY3 + LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + Repaid0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[10]]
Repaid ~ FloodInRd1 + LY2 + LY3 + LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HeadLiteracy0 + HHsize0 +
    Repaid0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[11]]
Repaid ~ FloodInRd1 + LY2 + LY3 + LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HeadLiteracy0 + HHsize0 +
    Repaid0 + NetSaving0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[1] excla
[[1]]
NetSaving ~ dummyLargeSize + dummyWithGrace + dummyInKind
NetSaving ~ LY2 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind
NetSaving ~ dummyLargeSize + dummyWithGrace + dummyInKind + NetSaving0
```

[[4]]

```
NetSaving ~ LY2 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + NetSaving0
[[5]]
NetSaving \sim FloodInRd1 + LY2 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HeadLiteracy0 + HHsize0 + NetSaving0
[[6]]
Repaid ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[7]]
Repaid ~ LY2 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind
Repaid ~ dummyLargeSize + dummyWithGrace + dummyInKind + Repaid0
ΓΓ9]]
Repaid ~ LY2 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + Repaid0
[[10]]
Repaid ~ FloodInRd1 + LY2 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HeadLiteracy0 + HHsize0 + Repaid0
[[11]]
Repaid ~ FloodInRd1 + LY2 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HeadLiteracy0 + HHsize0 + Repaid0 + NetSaving0
[1] exclT
[[1]]
NetSaving ~ dummyLarge + dummyLargeGrace + dummyCattle
[[2]]
NetSaving ~ LY3 + LY4 + dummyLarge + dummyLargeGrace + dummyCattle
NetSaving ~ dummyLarge + dummyLargeGrace + dummyCattle + NetSaving0
ΓΓ4]]
NetSaving \sim LY3 + LY4 + dummyLarge + dummyLargeGrace + dummyCattle +
    NetSaving0
[[5]]
NetSaving ~ FloodInRd1 + LY3 + LY4 + dummyLarge + dummyLargeGrace +
    dummyCattle + HeadLiteracy0 + HHsize0 + NetSaving0
[[6]]
Repaid ~ dummyLarge + dummyLargeGrace + dummyCattle
[[7]]
Repaid ~ LY3 + LY4 + dummyLarge + dummyLargeGrace + dummyCattle
Repaid ~ dummyLarge + dummyLargeGrace + dummyCattle + Repaid0
[[9]]
Repaid ~ LY3 + LY4 + dummyLarge + dummyLargeGrace + dummyCattle +
   Repaid0
[[10]]
```

```
Repaid ~ FloodInRd1 + LY3 + LY4 + dummyLarge + dummyLargeGrace +
    dummyCattle + HeadLiteracy0 + HHsize0 + Repaid0
[[11]]
Repaid ~ FloodInRd1 + LY3 + LY4 + dummyLarge + dummyLargeGrace +
    dummyCattle + HeadLiteracy0 + HHsize0 + Repaid0 + NetSaving0
[1] exclTP
[[1]]
NetSaving ~ dummyLargeSize.LY3 + dummyWithGrace.LY3 + dummyInKind.LY3 +
    dummyUltraPoor.LY3 + dummyLargeSize.LY4 + dummyWithGrace.LY4 +
    dummyInKind.LY4 + dummyUltraPoor.LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.LY3 +
    dummyLargeSize.UltraPoor.LY4 + dummyWithGrace.UltraPoor.LY3 +
    dummyWithGrace.UltraPoor.LY4 + dummyInKind.UltraPoor.LY3 +
    dummyInKind.UltraPoor.LY4
ΓΓ2]]
NetSaving \sim LY3 + LY4 + dummyLargeSize.LY3 + dummyWithGrace.LY3 +
    dummyInKind.LY3 + dummyUltraPoor.LY3 + dummyLargeSize.LY4 +
    dummyWithGrace.LY4 + dummyInKind.LY4 + dummyUltraPoor.LY4 +
    dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.LY3 + dummyLargeSize.UltraPoor.LY4 +
    dummyWithGrace.UltraPoor.LY3 + dummyWithGrace.UltraPoor.LY4 +
    dummyInKind.UltraPoor.LY3 + dummyInKind.UltraPoor.LY4
[[3]]
NetSaving \sim dummyLargeSize.LY3 + dummyWithGrace.LY3 + dummyInKind.LY3 +
    dummyUltraPoor.LY3 + dummyLargeSize.LY4 + dummyWithGrace.LY4 +
    dummyInKind.LY4 + dummyUltraPoor.LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + NetSaving0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.LY3 +
    dummyLargeSize.UltraPoor.LY4 + dummyWithGrace.UltraPoor.LY3 +
    dummyWithGrace.UltraPoor.LY4 + dummyInKind.UltraPoor.LY3 +
    dummyInKind.UltraPoor.LY4
NetSaving ~ LY3 + LY4 + dummyLargeSize.LY3 + dummyWithGrace.LY3 +
    dummyInKind.LY3 + dummyUltraPoor.LY3 + dummyLargeSize.LY4 +
    dummyWithGrace.LY4 + dummyInKind.LY4 + dummyUltraPoor.LY4 +
    dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    NetSaving0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.LY3 + dummyLargeSize.UltraPoor.LY4 +
    dummyWithGrace.UltraPoor.LY3 + dummyWithGrace.UltraPoor.LY4 +
    dummyInKind.UltraPoor.LY3 + dummyInKind.UltraPoor.LY4
[[5]]
NetSaving ~ FloodInRd1 + LY3 + LY4 + dummyLargeSize.LY3 + dummyWithGrace.LY3 +
    dummyInKind.LY3 + dummyUltraPoor.LY3 + dummyLargeSize.LY4 +
    dummyWithGrace.LY4 + dummyInKind.LY4 + dummyUltraPoor.LY4 +
    dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    HeadLiteracy0 + HHsize0 + NetSaving0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.LY3 +
    dummyLargeSize.UltraPoor.LY4 + dummyWithGrace.UltraPoor.LY3 +
    dummyWithGrace.UltraPoor.LY4 + dummyInKind.UltraPoor.LY3 +
    dummyInKind.UltraPoor.LY4
Repaid ~ dummyLargeSize.LY3 + dummyWithGrace.LY3 + dummyInKind.LY3 +
```

```
dummyUltraPoor.LY3 + dummyLargeSize.LY4 + dummyWithGrace.LY4 +
    dummyInKind.LY4 + dummyUltraPoor.LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.LY3 +
    dummyLargeSize.UltraPoor.LY4 + dummyWithGrace.UltraPoor.LY3 +
    dummyWithGrace.UltraPoor.LY4 + dummyInKind.UltraPoor.LY3 +
    dummyInKind.UltraPoor.LY4
[[7]]
Repaid ~ LY3 + LY4 + dummyLargeSize.LY3 + dummyWithGrace.LY3 +
    dummyInKind.LY3 + dummyUltraPoor.LY3 + dummyLargeSize.LY4 +
    dummyWithGrace.LY4 + dummyInKind.LY4 + dummyUltraPoor.LY4 +
    dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.LY3 + dummyLargeSize.UltraPoor.LY4 +
    dummyWithGrace.UltraPoor.LY3 + dummyWithGrace.UltraPoor.LY4 +
    dummyInKind.UltraPoor.LY3 + dummyInKind.UltraPoor.LY4
[[8]]
Repaid ~ dummyLargeSize.LY3 + dummyWithGrace.LY3 + dummyInKind.LY3 +
    dummyUltraPoor.LY3 + dummyLargeSize.LY4 + dummyWithGrace.LY4 +
    dummyInKind.LY4 + dummyUltraPoor.LY4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + Repaid0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.LY3 +
    dummyLargeSize.UltraPoor.LY4 + dummyWithGrace.UltraPoor.LY3 +
    dummyWithGrace.UltraPoor.LY4 + dummyInKind.UltraPoor.LY3 +
    dummyInKind.UltraPoor.LY4
[[9]]
Repaid ~ LY3 + LY4 + dummyLargeSize.LY3 + dummyWithGrace.LY3 +
    dummyInKind.LY3 + dummyUltraPoor.LY3 + dummyLargeSize.LY4 +
    dummyWithGrace.LY4 + dummyInKind.LY4 + dummyUltraPoor.LY4 +
    dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    Repaid0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.LY3 + dummyLargeSize.UltraPoor.LY4 +
    dummyWithGrace.UltraPoor.LY3 + dummyWithGrace.UltraPoor.LY4 +
    dummyInKind.UltraPoor.LY3 + dummyInKind.UltraPoor.LY4
Repaid ~ FloodInRd1 + LY3 + LY4 + dummyLargeSize.LY3 + dummyWithGrace.LY3 +
    dummyInKind.LY3 + dummyUltraPoor.LY3 + dummyLargeSize.LY4 +
    dummyWithGrace.LY4 + dummyInKind.LY4 + dummyUltraPoor.LY4 +
    dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    HeadLiteracy0 + HHsize0 + Repaid0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.LY3 +
    dummyLargeSize.UltraPoor.LY4 + dummyWithGrace.UltraPoor.LY3 +
    dummyWithGrace.UltraPoor.LY4 + dummyInKind.UltraPoor.LY3 +
    dummyInKind.UltraPoor.LY4
[[11]]
Repaid ~ FloodInRd1 + LY3 + LY4 + dummyLargeSize.LY3 + dummyWithGrace.LY3 +
    dummyInKind.LY3 + dummyUltraPoor.LY3 + dummyLargeSize.LY4 +
    dummyWithGrace.LY4 + dummyInKind.LY4 + dummyUltraPoor.LY4 +
    dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    HeadLiteracy0 + HHsize0 + Repaid0 + NetSaving0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.LY3 +
    dummyLargeSize.UltraPoor.LY4 + dummyWithGrace.UltraPoor.LY3 +
    dummyWithGrace.UltraPoor.LY4 + dummyInKind.UltraPoor.LY3 +
    dummyInKind.UltraPoor.LY4
[1] exclTa
```

```
[[1]]
NetSaving ~ dummyLargeSize + dummyWithGrace + dummyInKind
NetSaving ~ LY3 + LY4 + dummyLargeSize + dummyWithGrace + dummyInKind
NetSaving ~ dummyLargeSize + dummyWithGrace + dummyInKind + NetSaving0
[[4]]
NetSaving \sim LY3 + LY4 + dummyLargeSize + dummyWithGrace + dummyInKind +
   NetSaving0
[[5]]
NetSaving ~ FloodInRd1 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HeadLiteracy0 + HHsize0 + NetSaving0
ГГ6]]
Repaid ~ dummyLargeSize + dummyWithGrace + dummyInKind
Repaid ~ LY3 + LY4 + dummyLargeSize + dummyWithGrace + dummyInKind
Repaid ~ dummyLargeSize + dummyWithGrace + dummyInKind + Repaid0
[[9]]
Repaid ~ LY3 + LY4 + dummyLargeSize + dummyWithGrace + dummyInKind +
   Repaid0
[[10]]
Repaid ~ FloodInRd1 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HeadLiteracy0 + HHsize0 + Repaid0
[[11]]
Repaid ~ FloodInRd1 + LY3 + LY4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HeadLiteracy0 + HHsize0 + Repaid0 + NetSaving0
```

```
used (Mb) gc trigger (Mb) max used (Mb)
Ncells 2358313 126.0 4165175 222.5 4165175 222.5
Vcells 244215554 1863.3 365173491 2786.1 304236024 2321.2
```

TABLE 13: ANCOVA ESTIMATION OF NET SAVING AND REPAYMENT

			1	Net saving	3		Repayment						
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
(Intercept)	,	39.8 (0.0)	107.2 (0.0)	39.0 (0.0)	106.3 (0.0)	104.1 (0.0)	250.8 (0.0)	130.8 (0.0)	251.8 (0.0)	132.5 (0.0)	138.4 (0.0)		
Large	0.297 (0.46)	7.0 (4.3)	6.4 (6.6)	5.3 (14.1)	4.6 (19.9)	4.6 (20.2)	80.1 (0.0)	80.5 (0.0)	79.7 (0.0)	80.0 (0.0)	80.3 (0.0)		
LargeGrace	0.291 (0.45)	21.0 (0.0)	20.5 (0.0)	17.9 (0.0)	17.5 (0.0)	17.8 (0.0)	81.3 (0.0)	81.8 (0.0)	80.4 (0.0)	80.2 (0.0)	78.1 (0.0)		
Cattle	0.264 (0.44)	22.6 (0.0)	22.0 (0.0)	19.8 (0.0)	19.1 (0.0)	19.2 (0.0)	75.5 (0.0)	75.9 (0.0)	74.6 (0.0)	74.2 (0.0)	73.0 (0.0)		
LY2	0.258 (0.44)		-81.2 (0.0)		-81.2 (0.0)	-81.2 (0.0)		148.5 (0.0)		148.6 (0.0)	148.6 (0.0)		
LY3	0.258 (0.44)		-85.8 (0.0)		-85.7 (0.0)	-85.7 (0.0)		222.9 (0.0)		222.9 (0.0)	222.9 (0.0)		
LY4	0.233 (0.42)		-102.0 (0.0)		-102.1 (0.0)	-102.0 (0.0)		101.6 (0.1)		101.7 (0.1)	101.6 (0.1)		
FloodInRd1	0.477 (0.50)					1.5 (64.7)					-11.7 (2.1)		
Head literate0	0.122 (0.33)					1.8 (45.5)					10.2 (12.5)		
net saving0	355.719 (513.67)			0.0 (3.6)	0.0 (3.4)	0.0 (4.5)							
HHsize0	4.241 (1.38)					0.3 (64.9)					-0.2 (89.9)		
Renaid0	98.890 (195.66)								-0.0 (82.4)	-0.0 (69.7)	-0.0 (72.0)		
mean of dependent variable \bar{R}^2		54 0.008	54 0.164	54 0.009	54 0.165	54 0.165	318 0.005	318 0.051	318 0.005	318 0.051	318 0.051		
N	26627	26627	26627	26627	26627	26627	26627	26627	26627	26627	26627		

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Saving and repayment information is taken from administrative data. Net saving is saving - withdrawal. LY2, LY3, LY4 are dummy variables for second, third, and fourth year into borrowing. Repayment starts from the year 1 for traditional and large arms, from the year 2 for large grace and cattle arms. The first regression of repayment gives a mean monthly repayment for each arms. Mean monthly repayment is zero in the year 1 for large grace and cattle arms.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 14: ANCOVA ESTIMATION OF NET SAVING AND REPAYMENT BY ATTRIBUTES

			1	Net saving	g		Repayment						
	/ . 1	(1)	(2)	(2)	(4)	(5)	(6)	(7)	(0)	(0)	(10)		
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
(Intercept)		39.8 (0.0)	107.2 (0.0)	39.0 (0.0)	106.3 (0.0)	104.1 (0.0)	250.8 (0.0)	130.8 (0.0)	251.8 (0.0)	132.5 (0.0)	138.4 (0.0)		
Unfront	0.851 (0.36)	7.0 (4.3)	6.4 (6.6)	5.3 (14.1)	4.6 (19.9)	4.6 (20.2)	80.1 (0.0)	80.5 (0.0)	79.7 (0.0)	80.0 (0.0)	80.3 (0.0)		
WithGrace	0.555 (0.50)	14.0 (0.5)	14.1 (0.4)	12.7 (0.8)	12.8 (0.7)	13.3 (0.4)	1.3 (90.0)	1.3 (89.7)	0.6 (95.1)	0.2 (98.4)	-2.2 (81.9)		
InKind	0.264 (0.44)	1.6 (80.4)	1.4 (82.3)	1.8 (76.9)	1.6 (78.8)	1.4 (81.9)	-5.8 (59.3)	-6.0 (58.2)	-5.8 (59.2)	-6.0 (58.0)	-5.1 (62.2)		
LY2	0.258 (0.44)		-81.2 (0.0)		-81.2 (0.0)	-81.2 (0.0)		148.5 (0.0)		148.6 (0.0)	148.6 (0.0)		
LY3	0.258 (0.44)		-85.8 (0.0)		-85.7 (0.0)	-85.7 (0.0)		222.9 (0.0)		222.9 (0.0)	222.9 (0.0)		
LY4	0.233 (0.42)		-102.0 (0.0)		-102.1 (0.0)	-102.0 (0.0)		101.6 (0.1)		101.7 (0.1)	101.6 (0.1)		
FloodInRd1	0.477 (0.50)					1.5 (64.7)					-11.7 (2.1)		
Head literate0	0.122 (0.33)					1.8 (45.5)					10.2 (12.5)		
net saving0	355.719 (513.67)			0.0 (3.6)	0.0 (3.4)	0.0 (4.5)							
HHsize0	4.241 (1.38)					0.3 (64.9)					-0.2 (89.9)		
Renaid0	98.890 (195.66)								-0.0 (82.4)	-0.0 (69.7)	-0.0 (72.0)		
mean of dependent variable \bar{R}^2		54 0.008	54 0.164	54 0.009	54 0.165	54 0.165	318 0.005	318 0.051	318 0.005	318 0.051	318 0.051		
N	26627	26627	26627	26627	26627	26627	26627	26627	26627	26627	26627		

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Saving and repayment information is taken from administrative data. Net saving is saving - withdrawal. LY2, LY3, LY4 are dummy variables for second, third, and fourth year into borrowing. Repayment starts from the year 2 for WithGrace functional attributes. The first regression of repayment gives a mean monthly repayment for each arms. Mean monthly repayment is zero in the year 1 for WithGrace functional attributes.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 15: ANCOVA ESTIMATION OF NET SAVING AND REPAYMENT, ULTRA POOR VS. MODERATELY POOR

]	Net saving	<u> </u>		Repayment						
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
(Intercept)		28.5 (0.0)	54.7 (0.0)	27.7 (0.0)	53.9 (0.0)	51.4 (0.0)	265.0 (0.0)	218.5 (0.0)	265.7 (0.0)	219.3 (0.0)	225.3 (0.0)		
Unfront	0.851 (0.36)	10.6 (8.0)	10.6 (1.5)	8.9 (15.1)	8.8 (4.9)	8.8 (4.9)	93.5 (0.0)	93.3 (0.0)	93.2 (0.0)	93.0 (0.0)	93.4 (0.0)		
WithGrace	0.555 (0.50)	25.1 (0.2)	25.5 (0.0)	23.8 (0.3)	24.1 (0.0)	24.5 (0.0)	-33.2 (5.4)	-33.6 (3.9)	-33.7 (5.3)	-34.2 (3.7)	-36.7 (2.0)		
InKind	0.264 (0.44)	-1.1 (91.4)	0.6 (95.2)	-0.9 (93.0)	0.8 (92.7)	0.5 (95.0)	-13.0 (45.5)	-15.7 (33.9)	-13.0 (45.5)	-15.8 (33.8)	-14.9 (35.0)		
UltraPoor	0.714 (0.45)	3.5 (2.8)	2.6 (6.9)	3.5 (3.2)	2.6 (7.6)	2.8 (5.6)	-5.0 (15.5)	-3.6 (25.9)	-5.0 (15.7)	-3.6 (26.5)	-3.2 (34.2)		
Unfront × UltraPoor	0.609 (0.49)	-7.7 (7.8)	-7.3 (8.0)	-7.5 (9.4)	-7.1 (9.6)	-6.7 (11.8)	17.2 (15.5)	16.6 (14.9)	17.3 (15.5)	16.8 (14.8)	17.0 (17.5)		
WithGrace × UltraPoor	0.401 (0.49)	4.3 (25.9)	3.1 (39.6)	4.7 (24.2)	3.4 (35.8)	3.2 (37.5)	-9.2 (28.4)	-7.2 (36.8)	-9.1 (28.5)	-7.2 (37.0)	-8.0 (32.0)		
InKind × UltraPoor	0.191 (0.39)	6.1 (17.2)	6.1 (11.8)	5.2 (24.0)	5.1 (17.8)	5.3 (15.6)	-5.4 (58.4)	-5.1 (56.8)	-5.4 (58.4)	-5.1 (56.7)	-4.8 (58.2)		
LY3	0.258 (0.44)		-45.9 (0.0)		-45.9 (0.0)	-45.9 (0.0)		154.7 (0.0)		154.7 (0.0)	154.7 (0.0)		
Unfront \times LY3	0.220 (0.41)	-12.9 (47.0)	-13.8 (3.6)	-12.9 (47.1)	-13.8 (3.7)	-13.8 (3.7)	26.2 (66.5)	29.8 (14.4)	26.2 (66.5)	29.8 (14.4)	29.7 (14.5)		
WithGrace \times LY3	0.143 (0.35)	-54.3 (0.5)	-55.4 (0.0)	-54.3 (0.5)	-55.4 (0.0)	-55.4 (0.0)	284.7 (0.0)	288.6 (0.0)	284.7 (0.0)	288.6 (0.0)	288.6 (0.0)		
InKind × LY3	0.069 (0.25)	8.4 (69.6)	1.5 (91.5)	8.3 (69.7)	1.5 (91.5)	1.5 (91.5)	-32.2 (60.0)	-9.3 (75.5)	-32.2 (60.0)	-9.3 (75.5)	-9.2 (75.6)		
UltraPoor \times LY3	0.184 (0.39)	-5.2 (9.7)	-1.8 (46.8)	-5.2 (9.7)	-1.8 (46.7)	-1.8 (46.8)	16.5 (5.6)	4.8 (48.9)	16.5 (5.6)	4.8 (48.9)	4.8 (48.9)		
Unfront \times UltraPoor \times LY3	0.157 (0.36)	9.5 (24.0)	8.2 (29.1)	9.5 (23.9)	8.2 (29.1)	8.2 (29.1)	-9.6 (67.0)	-5.5 (74.5)	-9.6 (67.0)	-5.5 (74.5)	-5.5 (74.6)		
WithGrace \times UltraPoor \times LY3	0.104 (0.30)	-15.3 (3.8)	-10.3 (10.2)	-15.3 (3.7)	-10.3 (10.2)	-10.3 (10.2)	21.8 (29.2)	4.7 (80.0)	21.8 (29.2)	4.7 (80.0)	4.8 (80.0)		
$InKind \times UltraPoor \times LY3$	0.050 (0.22)	-3.3 (72.0)	-2.4 (69.1)	-3.2 (72.2)	-2.4 (69.3)	-2.4 (69.3)	40.2 (12.5)	37.0 (6.3)	40.2 (12.5)	37.0 (6.3)	37.1 (6.3)		
LY4	0.233 (0.42)		-62.1 (0.0)		-62.2 (0.0)	-62.2 (0.0)		29.6 (21.6)		29.6 (21.5)	29.6 (21.6)		
Unfront \times LY4	0.198 (0.40)	-17.7 (46.1)	-20.0 (1.7)	-17.7 (46.0)	-20.1 (1.7)	-20.0 (1.7)	-129.2 (3.1)	-129.4 (2.7)	-129.2 (3.1)	-129.4 (2.7)	-129.7 (2.6)		
WithGrace \times LY4	0.129 (0.34)	-49.5 (4.2)	-50.6 (0.0)	-49.5 (4.3)	-50.5 (0.0)	-50.6 (0.0)	66.0 (28.9)	67.0 (27.5)	65.9 (29.0)	66.9 (27.6)	67.0 (27.5)		
InKind × LY4	0.061 (0.24)	14.9 (58.2)	4.6 (76.7)	14.7 (58.8)	4.4 (77.8)	4.4 (77.7)	84.1 (21.5)	88.0 (19.5)	84.1 (21.5)	88.0 (19.5)	88.0 (19.5)		
UltraPoor \times LY4	0.166 (0.37)	-5.3 (17.0)	-0.5 (84.7)	-5.4 (16.7)	-0.5 (83.9)	-0.5 (83.9)	-26.1 (7.4)	-28.2 (5.0)	-26.1 (7.4)	-28.2 (5.1)	-28.2 (5.0)		
Unfront \times UltraPoor \times LY4	0.142 (0.35)	13.3 (15.8)	12.1 (8.8)	13.3 (15.7)	12.1 (8.7)	12.1 (8.8)	-33.7 (52.8)	-32.6 (54.6)	-33.7 (52.8)	-32.6 (54.6)	-32.7 (54.4)		
WithGrace \times UltraPoor \times LY4	0.093 (0.29)	-13.0 (16.6)	-5.9 (43.7)	-13.1 (16.3)	-5.9 (43.1)	-5.9 (43.3)	12.1 (71.0)	9.0 (78.0)	12.1 (71.0)	9.0 (78.0)	9.1 (77.8)		
$InKind \times UltraPoor \times LY4$	0.044 (0.21)	-16.1 (15.5)	-14.0 (3.4)	-16.0 (15.7)	-13.9 (3.5)	-13.9 (3.5)	12.8 (73.6)	12.7 (73.4)	12.8 (73.6)	12.7 (73.4)	12.7 (73.6)		
FloodInRd1	0.477 (0.50)					1.4 (66.0)					-11.9 (2.0)		
Head literate()	0.122 (0.33)					2.1 (39.1)					9.9 (15.0)		
net saving0	355.719 (513.67)			0.0 (3.7)	0.0 (3.2)	0.0 (4.2)							
HHsize()	4.241 (1.38)					0.3 (61.7)					-0.2 (85.1)		
Repaid0	98.890 (195.66)								-0.0 (85.9)	-0.0 (83.8)	-0.0 (86.2)		
mean of dependent variable $ar{R}^2$		54 0.026	54 0.101	54 0.027	54 0.102	54 0.102	318 0.032	318 0.061	318 0.032	318 0.061	318 0.061		
N	26627	26627	26627	26627	26627	26627	26627	26627	26627	26627	26627		

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. UltraPoor is an indicator variable if the household is classified as the ultra poor. Saving and repayment information is taken from administrative data. Net saving is saving - withdrawal. LY2, LY3, LY4 are dummy variables for second, third, and fourth year into borrowing. Repayment starts from the year 2 for WithGrace functional attributes. The first regression of repayment gives a mean monthly repayment for each arms. Mean monthly repayment is zero in the year 1 for WithGrace functional attributes.

2. *P* values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Finding III.1 Table 13 shows regression results for net saving, repayment, and effective repayment (net saving + repayment) using monthly administrative data. Monthly mean repayment is given by 48 times the estimated values in colum (5). One sees that traditional has the lowest mean repayment. It is shown that they repaid loan year 2 and 3

```
FullyRepaid
Arm 0 1 sum
traditional 85 0 85
large 166 4 170
large grace 162 4 166
cattle 151 1 152
sum 564 9 573
```

Finding III.2 Figure 5 visually presents that repayment is no different between the ultra poor and the moderately poor. The subsequent regression table econometrically confirms this (TABLE ??).

III.2 Schooling

ANCOVA is a model that controls for preexisting differences by including initial values of y as a covariate, traditionally for a continuous variable as a nuissance to estimated impacts of a categorical variable (treated/control). In enrollment regressions, initial enrollment is informative only for school age children at the initial period. ANCOVA estimates should be used only to school age children in 2012 who are not old enough that they may naturally stop schooling by the endline.

```
Dropped 902 obs due to NA.
Dropped 902 obs due to NA.
Dropped 184 obs due to T<2.
Dropped 616 obs due to NA.
```

Enrollment pattern in original schooling panel. 'n' indicates NA (either attrition or not reported).

	SchPattern													
ObPattern	0000	0001	000n	0011	001n	00n0	00n1	00 n n	010n	0111	011n	01nn	0 n 0 0	0 n 0 n
0111	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1010	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1011	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	0	0	0	0	0	0	0	0	0	0	0	3	0	0
1110	0	0	5	0	2	0	0	1	0	0	3	0	0	0
1111	21	2	16	12	1	4	1	25	1	83	4	4	1	0
	SchPa	ttern												
ObPattern	0 n 1 1	0 n 1 n	0nn0	0 n n 1	0nnn	1000	1001	100 n	1011	101n	10 n 1	10 nn	1100	1101
0111	2	1	0	0	2	0	0	0	0	0	0	0	0	0
1000	0	0	0	0	32	0	0	0	0	0	0	0	0	0
1010	0	0	0	0	2	0	0	0	0	0	0	0	0	0
1011	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	0	0	0	0	1	0	0	0	0	0	0	0	0	0
1110	0	0	0	0	2	0	0	1	0	1	0	0	0	0
1111	4	1	3	1	68	5	1	3	6	1	1	8	8	1
	SchPa	ttern												
ObPattern	110n	1110	1111	111n	11 n 1	11nn	1 n 0 0	1 n 0 1	1 n 0 n	1 n 1 1	1 n 1 n	1nn0	1nn1	1nnn
0111	0	0	0	0	0	0	0	0	0	6	0	0	0	1
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	22
						_	1							

1010	0	0	0	0	0	0	0	0	0	0	1	0	0	2
1011	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	0	0	0	0	0	6	0	0	0	0	0	0	0	0
1110	0	0	0	25	0	2	0	0	0	0	1	0	0	0
1111	9	3	397	30	4	26	1	1	1	8	1	1	2	42

Left panel is before dropping nnn, right panel is after: Original panel.

	traditional	large	large	grace	cattle	traditional	large	large	grace	cattle
1	205	246		251	235	166	208		186	203
2	161	197		177	191	161	197		177	191
3	148	185		165	173	148	185		165	173
4	118	171		147	143	118	171		147	143

sch has 2913 rows. Drop 174 observations in sch with nnn in SchPattern.

With OLS, 89, 135, 539 individuals are repeatedly observed for 2, 3, 4 times, respectively. Number of individuals with NAs in Enrolled: 0 obs for sch. Check missingness in junior or high school level information at baseline.

```
table 0 (apply (s1x [0800] == 1L & tee == 1, .(dummyJunior, dummyHigh)], 1, sum))
```

```
0
610 153
```

Drop 610 obs without school level information.

```
(Mb) gc trigger
                                      (Mb)
Ncells
         2366485
                  126.4
                            4165175
                                     222.5
                                             4165175
                                                       222.5
Vcells 248249331 1894.0
                         365173491 2786.1 304236024 2321.2
```

```
[1] excl
[[1]]
Enrolled ~ dummyLarge + dummyLargeGrace + dummyCattle
Enrolled ~ dummyLarge + dummyLargeGrace + dummyCattle + Enrolled0
[[3]]
Enrolled \sim dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
    dummyHigh + dummyLarge.dummyJunior + dummyLargeGrace.dummyJunior +
    dummyCattle.dummyJunior + dummyLarge.dummyHigh + dummyLargeGrace.dummyHigh +
    dummyCattle.dummyHigh + Enrolled0
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
    dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
    dummyHigh + dummyLarge.dummyJunior + dummyLargeGrace.dummyJunior +
    dummyCattle.dummyJunior + dummyLarge.dummyHigh + dummyLargeGrace.dummyHigh
    dummyCattle.dummyHigh + HHsize0 + HeadLiteracy0 + HeadAge0 +
    Enrolled0
[[5]]
Enrolled ~ dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
    dummyHigh + Female + dummyLarge.dummyJunior + dummyLargeGrace.dummyJunior +
    dummyCattle.dummyJunior + dummyLarge.dummyHigh + dummyLargeGrace.dummyHigh +
    dummyCattle.dummyHigh + dummyLarge.Female + dummyLargeGrace.Female +
    dummyCattle.Female + dummyJunior.Female + dummyHigh.Female +
    dummyLarge.dummyJunior.Female + dummyLargeGrace.dummyJunior.Female +
    dummyCattle.dummyJunior.Female + dummyLarge.dummyHigh.Female +
    dummyLargeGrace.dummyHigh.Female + dummyCattle.dummyHigh.Female +
    Enrolled0
```

```
[[6]]
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
    dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
    dummyHigh + Female + dummyLarge.dummyJunior + dummyLargeGrace.dummyJunior +
    dummyCattle.dummyJunior + dummyLarge.dummyHigh + dummyLargeGrace.dummyHigh +
    dummyCattle.dummyHigh + dummyLarge.Female + dummyLargeGrace.Female +
    dummyCattle.Female + dummyJunior.Female + dummyHigh.Female +
    dummyLarge.dummyJunior.Female + dummyLargeGrace.dummyJunior.Female +
    dummyCattle.dummyJunior.Female + dummyLarge.dummyHigh.Female +
    dummyLargeGrace.dummyHigh.Female + dummyCattle.dummyHigh.Female +
    HHsize0 + HeadLiteracy0 + HeadAge0 + Enrolled0
[1] excla
[[1]]
Enrolled ~ dummyLargeSize + dummyWithGrace + dummyInKind
ΓΓ2]]
Enrolled ~ dummyLargeSize + dummyWithGrace + dummyInKind + Enrolled0
Enrolled \sim dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
    dummyHigh + dummyWithGrace.dummyJunior + dummyLargeSize.dummyJunior +
    dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyLargeSize.dummyHigh +
    dummyInKind.dummyHigh + Enrolled0
[[4]]
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
    dummyHigh + dummyWithGrace.dummyJunior + dummyLargeSize.dummyJunior +
    dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyLargeSize.dummyHigh +
    dummyInKind.dummyHigh + HHsize0 + HeadLiteracy0 + HeadAge0 +
    Enrolled0
[[5]]
Enrolled ~ dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
    dummyHigh + Female + dummyJunior.Female + dummyHigh.Female +
    dummyWithGrace.dummyJunior + dummyLargeSize.dummyJunior +
    dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyLargeSize.dummyHigh +
    dummyInKind.dummyHigh + dummyWithGrace.Female + dummyLargeSize.Female +
    dummyInKind.Female + dummyWithGrace.dummyJunior.Female +
    dummyLargeSize.dummyJunior.Female + dummyInKind.dummyJunior.Female +
    dummyWithGrace.dummyHigh.Female + dummyLargeSize.dummyHigh.Female +
    dummyInKind.dummyHigh.Female + Enrolled0
[[6]]
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
    dummyHigh + Female + dummyJunior.Female + dummyHigh.Female +
    dummyWithGrace.dummyJunior + dummyLargeSize.dummyJunior +
    dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyLargeSize.dummyHigh +
    dummyInKind.dummyHigh + dummyWithGrace.Female + dummyLargeSize.Female +
    dummyInKind.Female + dummyWithGrace.dummyJunior.Female +
    dummyLargeSize.dummyJunior.Female + dummyInKind.dummyJunior.Female +
    dummyWithGrace.dummyHigh.Female + dummyLargeSize.dummyHigh.Female +
    dummyInKind.dummyHigh.Female + HHsize0 + HeadLiteracy0 +
    HeadAge0 + Enrolled0
[1] exclP
Enrolled ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
```

```
dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyJunior.UltraPoor + dummyHigh.UltraPoor
[[2]]
Enrolled ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + Enrolled0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyJunior.UltraPoor + dummyHigh.UltraPoor
[[3]]
Enrolled ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyJunior + dummyHigh + dummyWithGrace.dummyJunior +
    dummyLargeSize.dummyJunior + dummyInKind.dummyJunior + dummyWithGrace.dummyHigh +
    dummyLargeSize.dummyHigh + dummyInKind.dummyHigh + Enrolled0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyJunior.UltraPoor + dummyHigh.UltraPoor
[[4]]
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
    dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyJunior + dummyHigh + dummyWithGrace.dummyJunior + dummyLargeSize.dummyJunior +
    dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyLargeSize.dummyHigh +
    dummyInKind.dummyHigh + HHsize0 + HeadLiteracy0 + HeadAge0 +
    Enrolled0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyJunior.UltraPoor + dummyHigh.UltraPoor
[[5]]
Enrolled ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyJunior + dummyHigh + Female + dummyJunior.Female +
    dummyHigh.Female + dummyWithGrace.dummyJunior + dummyLargeSize.dummyJunior
    dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyLargeSize.dummyHigh +
    dummyInKind.dummyHigh + dummyWithGrace.Female + dummyLargeSize.Female +
    dummyInKind.Female + dummyWithGrace.dummyJunior.Female +
    dummyLargeSize.dummyJunior.Female + dummyInKind.dummyJunior.Female +
    dummyWithGrace.dummyHigh.Female + dummyLargeSize.dummyHigh.Female +
    dummyInKind.dummyHigh.Female + Enrolled0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyJunior.UltraPoor +
    dummyHigh.UltraPoor + dummyFemale.UltraPoor
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
    dummyUltraPoor + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyJunior + dummyHigh + Female + dummyJunior.Female + dummyHigh.Female +
    dummyWithGrace.dummyJunior + dummyLargeSize.dummyJunior +
    dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyLargeSize.dummyHigh +
    dummyInKind.dummyHigh + dummyWithGrace.Female + dummyLargeSize.Female +
    dummyInKind.Female + dummyWithGrace.dummyJunior.Female +
    dummyLargeSize.dummyJunior.Female + dummyInKind.dummyJunior.Female +
    dummyWithGrace.dummyHigh.Female + dummyLargeSize.dummyHigh.Female +
    dummyInKind.dummyHigh.Female + HHsize0 + HeadLiteracy0 +
    HeadAge0 + Enrolled0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyJunior.UltraPoor + dummyHigh.UltraPoor +
    dummyFemale.UltraPoor
[1] exclT
[[1]]
Enrolled ~ dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
    dummyHigh + Time.3 + Time.4 + dummyLarge.dummyJunior + dummyLargeGrace.dummy
    dummyCattle.dummyJunior + dummyLarge.dummyHigh + dummyLargeGrace.dummyHigh +
    dummyCattle.dummyHigh + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyJunior.Time3 + dummyJunior.Time4 +
```

```
dummyHigh.Time3 + dummyHigh.Time4 + dummyLarge.dummyJunior.Time3 +
    dummyLargeGrace.dummyJunior.Time3 + dummyCattle.dummyJunior.Time3 +
    dummyLarge.dummyHigh.Time3 + dummyLargeGrace.dummyHigh.Time3 +
    dummyCattle.dummyHigh.Time3 + dummyLarge.dummyJunior.Time4 +
    dummyLargeGrace.dummyJunior.Time4 + dummyCattle.dummyJunior.Time4 +
    dummyLarge.dummyHigh.Time4 + dummyLargeGrace.dummyHigh.Time4 +
    dummyCattle.dummyHigh.Time4
[[2]]
Enrolled ~ dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
   dummyHigh + Time.3 + Time.4 + dummyLarge.dummyJunior + dummyLargeGrace.dummyJunior +
    dummyCattle.dummyJunior + dummyLarge.dummyHigh + dummyLargeGrace.dummyHigh -
    dummyCattle.dummyHigh + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyJunior.Time3 + dummyJunior.Time4 +
   dummyHigh.Time3 + dummyHigh.Time4 + dummyLarge.dummyJunior.Time3 +
   dummyLargeGrace.dummyJunior.Time3 + dummyCattle.dummyJunior.Time3 +
   dummyLarge.dummyHigh.Time3 + dummyLargeGrace.dummyHigh.Time3 +
   dummyCattle.dummyHigh.Time3 + dummyLarge.dummyJunior.Time4 +
   dummyLargeGrace.dummyJunior.Time4 + dummyCattle.dummyJunior.Time4 +
    dummyLarge.dummyHigh.Time4 + dummyLargeGrace.dummyHigh.Time4 +
   dummyCattle.dummyHigh.Time4 + Enrolled0
[[3]]
Enrolled ~ dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
   dummyHigh + Time.3 + Time.4 + dummyLarge.dummyJunior + dummyLargeGrace.dummyJunior +
    dummyCattle.dummyJunior + dummyLarge.dummyHigh + dummyLargeGrace.dummyHigh +
    dummyCattle.dummyHigh + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyJunior.Time3 + dummyJunior.Time4 +
   dummyHigh.Time3 + dummyHigh.Time4 + dummyLarge.dummyJunior.Time3 +
   dummyLargeGrace.dummyJunior.Time3 + dummyCattle.dummyJunior.Time3 +
   dummyLarge.dummyHigh.Time3 + dummyLargeGrace.dummyHigh.Time3 +
   dummyCattle.dummyHigh.Time3 + dummyLarge.dummyJunior.Time4 +
    dummyLargeGrace.dummyJunior.Time4 + dummyCattle.dummyJunior.Time4 +
    dummyLarge.dummyHigh.Time4 + dummyLargeGrace.dummyHigh.Time4 +
   dummyCattle.dummyHigh.Time4 + Enrolled0
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
    dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
   dummyHigh + Time.3 + Time.4 + dummyLarge.dummyJunior + dummyLargeGrace.dummyJunior +
   dummyCattle.dummyJunior + dummyLarge.dummyHigh + dummyLargeGrace.dummyHigh ·
    dummyCattle.dummyHigh + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + dummyJunior.Time3 + dummyJunior.Time4 +
   dummyHigh.Time3 + dummyHigh.Time4 + dummyLarge.dummyJunior.Time3 +
   dummyLargeGrace.dummyJunior.Time3 + dummyCattle.dummyJunior.Time3 +
   dummyLarge.dummyHigh.Time3 + dummyLargeGrace.dummyHigh.Time3 +
   dummyCattle.dummyHigh.Time3 + dummyLarge.dummyJunior.Time4 +
   dummyLargeGrace.dummyJunior.Time4 + dummyCattle.dummyJunior.Time4 +
    dummyLarge.dummyHigh.Time4 + dummyLargeGrace.dummyHigh.Time4 +
    dummyCattle.dummyHigh.Time4 + HHsize0 + HeadLiteracy0 + HeadAge0 +
   Enrolled0
Enrolled \sim dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
   dummyHigh + Female + Time.3 + Time.4 + dummyLarge.dummyJunior +
    dummyLargeGrace.dummyJunior + dummyCattle.dummyJunior + dummyLarge.dummyHigh| +
    dummyLargeGrace.dummyHigh + dummyCattle.dummyHigh + dummyLarge.Time3 +
```

dummyLargeGrace.Time3 + dummyCattle.Time3 + dummyLarge.Time4 +

```
dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyLarge.Female +
    dummyLargeGrace.Female + dummyCattle.Female + dummyJunior.Time3 +
    dummyJunior.Time4 + dummyHigh.Time3 + dummyHigh.Time4 + dummyJunior.Female +
   dummyHigh.Female + Female.Time3 + Female.Time4 + dummyJunior.Female.Time3 +
    dummyJunior.Female.Time4 + dummyHigh.Female.Time3 + dummyHigh.Female.Time4 +
    dummyLarge.dummyJunior.Female + dummyLargeGrace.dummyJunior.Female +
    dummyCattle.dummyJunior.Female + dummyLarge.dummyHigh.Female +
    dummyLargeGrace.dummyHigh.Female + dummyCattle.dummyHigh.Female +
    dummyLarge.Female.Time3 + dummyLargeGrace.Female.Time3 +
    dummyCattle.Female.Time3 + dummyLarge.Female.Time4 + dummyLargeGrace.Female.Time4 +
    dummyCattle.Female.Time4 + dummyLarge.dummyJunior.Time3 +
    dummyLargeGrace.dummyJunior.Time3 + dummyCattle.dummyJunior.Time3 +
    dummyLarge.dummyHigh.Time3 + dummyLargeGrace.dummyHigh.Time3 +
    dummyCattle.dummyHigh.Time3 + dummyLarge.dummyJunior.Time4 +
    dummyLargeGrace.dummyJunior.Time4 + dummyCattle.dummyJunior.Time4 +
    dummyLarge.dummyHigh.Time4 + dummyLargeGrace.dummyHigh.Time4 +
   dummyCattle.dummyHigh.Time4 + dummyLarge.dummyJunior.Female.Time3 +
   dummyLargeGrace.dummyJunior.Female.Time3 + dummyCattle.dummyJunior.Female.Time3 +
    dummyLarge.dummyHigh.Female.Time3 + dummyLargeGrace.dummyHigh.Female.Time3 +
    dummyCattle.dummyHigh.Female.Time3 + dummyLarge.dummyJunior.Female.Time4 +
    dummyLargeGrace.dummyJunior.Female.Time4 + dummyCattle.dummyJunior.Female.Time4 +
    dummyLarge.dummyHigh.Female.Time4 + dummyLargeGrace.dummyHigh.Female.Time4 +
    dummyCattle.dummyHigh.Female.Time4 + Enrolled0
[[6]]
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
    dummyLarge + dummyLargeGrace + dummyCattle + dummyJunior +
    dummyHigh + Female + Time.3 + Time.4 + dummyLarge.dummyJunior +
    dummyLargeGrace.dummyJunior + dummyCattle.dummyJunior + dummyLarge.dummyHigh +
    dummyLargeGrace.dummyHigh + dummyCattle.dummyHigh + dummyLarge.Time3 +
    dummyLargeGrace.Time3 + dummyCattle.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyLarge.Female +
    dummyLargeGrace.Female + dummyCattle.Female + dummyJunior.Time3 +
   dummyJunior.Time4 + dummyHigh.Time3 + dummyHigh.Time4 + dummyJunior.Female +
   dummyHigh.Female + Female.Time3 + Female.Time4 + dummyJunior.Female.Time3 +
   dummyJunior.Female.Time4 + dummyHigh.Female.Time3 + dummyHigh.Female.Time4 +
    dummyLarge.dummyJunior.Female + dummyLargeGrace.dummyJunior.Female +
   dummyCattle.dummyJunior.Female + dummyLarge.dummyHigh.Female +
   dummyLargeGrace.dummyHigh.Female + dummyCattle.dummyHigh.Female +
    dummyLarge.Female.Time3 + dummyLargeGrace.Female.Time3 +
    dummyCattle.Female.Time3 + dummyLarge.Female.Time4 + dummyLargeGrace.Female.Time4 +
    dummyCattle.Female.Time4 + dummyLarge.dummyJunior.Time3 +
    dummyLargeGrace.dummyJunior.Time3 + dummyCattle.dummyJunior.Time3 +
    dummyLarge.dummyHigh.Time3 + dummyLargeGrace.dummyHigh.Time3 +
    dummyCattle.dummyHigh.Time3 + dummyLarge.dummyJunior.Time4 +
    dummyLargeGrace.dummyJunior.Time4 + dummyCattle.dummyJunior.Time4 +
    dummyLarge.dummyHigh.Time4 + dummyLargeGrace.dummyHigh.Time4 +
    dummyCattle.dummyHigh.Time4 + dummyLarge.dummyJunior.Female.Time3 +
   dummyLargeGrace.dummyJunior.Female.Time3 + dummyCattle.dummyJunior.Female.Time3 +
    dummyLarge.dummyHigh.Female.Time3 + dummyLargeGrace.dummyHigh.Female.Time3 +
    dummyCattle.dummyHigh.Female.Time3 + dummyLarge.dummyJunior.Female.Time4 +
    dummyLargeGrace.dummyJunior.Female.Time4 + dummyCattle.dummyJunior.Female.Time4 +
   dummyLarge.dummyHigh.Female.Time4 + dummyLargeGrace.dummyHigh.Female.Time4 +
    dummyCattle.dummyHigh.Female.Time4 + HHsize0 + HeadLiteracy0 +
   HeadAge0 + Enrolled0
[1] exclTa
[[1]]
Enrolled ~ dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
   dummyHigh + Time.3 + Time.4 + dummyJunior.Time3 + dummyJunior.Time4 +
   dummyHigh.Time3 + dummyHigh.Time4 + dummyWithGrace.dummyJunior +
```

```
dummyLargeSize.dummyJunior + dummyInKind.dummyJunior + dummyWithGrace.dummyHigh +
      dummyLargeSize.dummyHigh + dummyInKind.dummyHigh + dummyWithGrace.Time3 +
      dummyLargeSize.Time3 + dummyInKind.Time3 + dummyWithGrace.Time4 +
      dummyLargeSize.Time4 + dummyInKind.Time4 + dummyWithGrace.dummyJunior.Time3 |+
      dummyLargeSize.dummyJunior.Time3 + dummyInKind.dummyJunior.Time3 +
      dummyWithGrace.dummyHigh.Time3 + dummyLargeSize.dummyHigh.Time3 +
      dummyInKind.dummyHigh.Time3 + dummyWithGrace.dummyJunior.Time4 +
      dummyLargeSize.dummyJunior.Time4 + dummyInKind.dummyJunior.Time4 +
      dummyWithGrace.dummyHigh.Time4 + dummyLargeSize.dummyHigh.Time4 +
      dummyInKind.dummyHigh.Time4
[[2]]
Enrolled ~ dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
      dummyHigh + Time.3 + Time.4 + dummyJunior.Time3 + dummyJunior.Time4 +
      dummyHigh.Time3 + dummyHigh.Time4 + dummyWithGrace.dummyJunior +
      dummyLargeSize.dummyJunior + dummyInKind.dummyJunior + dummyWithGrace.dummyHigh +
      dummyLargeSize.dummyHigh + dummyInKind.dummyHigh + dummyWithGrace.Time3 +
      dummyLargeSize.Time3 + dummyInKind.Time3 + dummyWithGrace.Time4 +
      dummyLargeSize.Time4 + dummyInKind.Time4 + dummyWithGrace.dummyJunior.Time3 | +
      dummyLargeSize.dummyJunior.Time3 + dummyInKind.dummyJunior.Time3 +
      dummyWithGrace.dummyHigh.Time3 + dummyLargeSize.dummyHigh.Time3 +
      dummyInKind.dummyHigh.Time3 + dummyWithGrace.dummyJunior.Time4 +
      dummyLargeSize.dummyJunior.Time4 + dummyInKind.dummyJunior.Time4 +
      dummyWithGrace.dummyHigh.Time4 + dummyLargeSize.dummyHigh.Time4 +
      dummyInKind.dummyHigh.Time4 + Enrolled0
[[3]]
Enrolled ~ dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
      dummyHigh + Time.3 + Time.4 + dummyJunior.Time3 + dummyJunior.Time4 +
      dummyHigh.Time3 + dummyHigh.Time4 + dummyWithGrace.dummyJunior +
      dummyLargeSize.dummyJunior + dummyInKind.dummyJunior + dummyWithGrace.dummyHigh +
      dummyLargeSize.dummyHigh + dummyInKind.dummyHigh + dummyWithGrace.Time3 +
      dummyLargeSize.Time3 + dummyInKind.Time3 + dummyWithGrace.Time4 +
      dummyLargeSize.Time4 + dummyInKind.Time4 + dummyWithGrace.dummyJunior.Time3 |+
      dummyLargeSize.dummyJunior.Time3 + dummyInKind.dummyJunior.Time3 +
      dummyWithGrace.dummyHigh.Time3 + dummyLargeSize.dummyHigh.Time3 +
      dummyInKind.dummyHigh.Time3 + dummyWithGrace.dummyJunior.Time4 +
      dummyLargeSize.dummyJunior.Time4 + dummyInKind.dummyJunior.Time4 +
      dummyWithGrace.dummyHigh.Time4 + dummyLargeSize.dummyHigh.Time4 +
      dummyInKind.dummyHigh.Time4 + Enrolled0
[[4]]
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
      dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
      dummyHigh + Time.3 + Time.4 + dummyJunior.Time3 + dummyJunior.Time4 +
      dummyHigh.Time3 + dummyHigh.Time4 + dummyWithGrace.dummyJunior +
      \tt dummyLargeSize.dummyJunior + dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyWithGrace.dummyHigh + dummyHigh + d
      dummyLargeSize.dummyHigh + dummyInKind.dummyHigh + dummyWithGrace.Time3 +
      dummyLargeSize.Time3 + dummyInKind.Time3 + dummyWithGrace.Time4 +
      dummyLargeSize.Time4 + dummyInKind.Time4 + dummyWithGrace.dummyJunior.Time3 | +
      dummyLargeSize.dummyJunior.Time3 + dummyInKind.dummyJunior.Time3 +
      dummyWithGrace.dummyHigh.Time3 + dummyLargeSize.dummyHigh.Time3 +
      dummyInKind.dummyHigh.Time3 + dummyWithGrace.dummyJunior.Time4 +
      dummyLargeSize.dummyJunior.Time4 + dummyInKind.dummyJunior.Time4 +
      dummyWithGrace.dummyHigh.Time4 + dummyLargeSize.dummyHigh.Time4 +
      dummyInKind.dummyHigh.Time4 + HHsize0 + HeadLiteracy0 + HeadAge0 +
      Enrolled0
[[5]]
Enrolled ~ dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
      dummyHigh + Female + Time.3 + Time.4 + dummyJunior.Time3 +
```

```
dummyHigh.Female + Female.Time3 + Female.Time4 + dummyJunior.Female.Time3 +
    dummyJunior.Female.Time4 + dummyHigh.Female.Time3 + dummyHigh.Female.Time4 +
    dummyWithGrace.dummyJunior + dummyLargeSize.dummyJunior +
    dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyLargeSize.dummyHigh +
    dummyInKind.dummyHigh + dummyWithGrace.Time3 + dummyLargeSize.Time3 +
    dummyInKind.Time3 + dummyWithGrace.Time4 + dummyLargeSize.Time4 +
    dummyInKind.Time4 + dummyWithGrace.Female + dummyLargeSize.Female +
    dummyInKind.Female + dummyWithGrace.dummyJunior.Female +
    dummyLargeSize.dummyJunior.Female + dummyInKind.dummyJunior.Female +
    dummyWithGrace.dummyHigh.Female + dummyLargeSize.dummyHigh.Female +
    dummyInKind.dummyHigh.Female + dummyWithGrace.Female.Time3 +
    dummyLargeSize.Female.Time3 + dummyInKind.Female.Time3 +
    dummyWithGrace.Female.Time4 + dummyLargeSize.Female.Time4 +
    dummyInKind.Female.Time4 + dummyWithGrace.dummyJunior.Time3 +
    dummyLargeSize.dummyJunior.Time3 + dummyInKind.dummyJunior.Time3 +
   dummyWithGrace.dummyHigh.Time3 + dummyLargeSize.dummyHigh.Time3 +
   dummyInKind.dummyHigh.Time3 + dummyWithGrace.dummyJunior.Time4 +
    dummyLargeSize.dummyJunior.Time4 + dummyInKind.dummyJunior.Time4 +
    dummyWithGrace.dummyHigh.Time4 + dummyLargeSize.dummyHigh.Time4 +
    dummyInKind.dummyHigh.Time4 + dummyWithGrace.dummyJunior.Female.Time3 +
    dummyLargeSize.dummyJunior.Female.Time3 + dummyInKind.dummyJunior.Female.Time3 +
    dummyWithGrace.dummyHigh.Female.Time3 + dummyLargeSize.dummyHigh.Female.Time3 +
   dummyInKind.dummyHigh.Female.Time3 + dummyWithGrace.dummyJunior.Female.Time4 +
    dummyLargeSize.dummyJunior.Female.Time4 + dummyInKind.dummyJunior.Female.Time4 +
    dummyWithGrace.dummyHigh.Female.Time4 + dummyLargeSize.dummyHigh.Female.Time4 +
    dummyInKind.dummyHigh.Female.Time4 + Enrolled0
[[6]]
Enrolled ~ FloodInRd1 + ChildAgeOrderAtRd1 + EldestSon + EldestDaughter +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyJunior +
   dummyHigh + Female + Time.3 + Time.4 + dummyJunior.Time3 +
    dummyJunior.Time4 + dummyHigh.Time3 + dummyHigh.Time4 + dummyJunior.Female +
   dummyHigh.Female + Female.Time3 + Female.Time4 + dummyJunior.Female.Time3 +
    dummyJunior.Female.Time4 + dummyHigh.Female.Time3 + dummyHigh.Female.Time4 +
    dummyWithGrace.dummyJunior + dummyLargeSize.dummyJunior +
    dummyInKind.dummyJunior + dummyWithGrace.dummyHigh + dummyLargeSize.dummyHigh +
    dummyInKind.dummyHigh + dummyWithGrace.Time3 + dummyLargeSize.Time3 +
    dummyInKind.Time3 + dummyWithGrace.Time4 + dummyLargeSize.Time4 +
    dummyInKind.Time4 + dummyWithGrace.Female + dummyLargeSize.Female +
    dummyInKind.Female + dummyWithGrace.dummyJunior.Female +
    dummyLargeSize.dummyJunior.Female + dummyInKind.dummyJunior.Female +
    dummyWithGrace.dummyHigh.Female + dummyLargeSize.dummyHigh.Female +
    dummyInKind.dummyHigh.Female + dummyWithGrace.Female.Time3 +
    dummyLargeSize.Female.Time3 + dummyInKind.Female.Time3 +
    dummyWithGrace.Female.Time4 + dummyLargeSize.Female.Time4 +
    dummyInKind.Female.Time4 + dummyWithGrace.dummyJunior.Time3 +
    dummyLargeSize.dummyJunior.Time3 + dummyInKind.dummyJunior.Time3 +
   dummyWithGrace.dummyHigh.Time3 + dummyLargeSize.dummyHigh.Time3 +
    dummyInKind.dummyHigh.Time3 + dummyWithGrace.dummyJunior.Time4 +
    dummyLargeSize.dummyJunior.Time4 + dummyInKind.dummyJunior.Time4 +
    dummyWithGrace.dummyHigh.Time4 + dummyLargeSize.dummyHigh.Time4 +
    dummyInKind.dummyHigh.Time4 + dummyWithGrace.dummyJunior.Female.Time3 +
    dummyLargeSize.dummyJunior.Female.Time3 + dummyInKind.dummyJunior.Female.Time3 +
    dummyWithGrace.dummyHigh.Female.Time3 + dummyLargeSize.dummyHigh.Female.Time3 +
    dummyInKind.dummyHigh.Female.Time3 + dummyWithGrace.dummyJunior.Female.Time4 +
    dummyLargeSize.dummyJunior.Female.Time4 + dummyInKind.dummyJunior.Female.Time4 +
    dummyWithGrace.dummyHigh.Female.Time4 + dummyLargeSize.dummyHigh.Female.Time4 +
    dummyInKind.dummyHigh.Female.Time4 + HHsize0 + HeadLiteracy0 +
   HeadAge0 + Enrolled0
```

dummyJunior.Time4 + dummyHigh.Time3 + dummyHigh.Time4 + dummyJunior.Female +

Table 16: FD estimation of school enrollment, round 1 vs. round 4 differences

. 1 B Estimation of sensor	E LI WOLL	VIET (1, ICO OT (E	1 15.1	COUNT I DILL
covariates (Intercept)	(1) 0.60***	(2) 0.75***	(3) 0.75***	(4) 0.75***
Secondary	(0.13) -0.44***	(0.10) -0.46***	(0.10)	(0.10) -0.46***
College	(0.12) -0.50***	(0.10) -0.50***	(0.10)	(0.10) -0.50***
Large	(0.13)	(0.12) -0.15*	(0.12)	(0.12) -0.15*
LargeGrace	(0.09)	(0.08) -0.12	(0.08)	(0.08)
Cow	(0.10) -0.14	(0.09) -0.15* (0.00)	(0.09) -0.16*	(0.09) -0.16*
Large × Secondary	(0.10) -0.03 (0.15)	(0.09) -0.02 (0.13)	(0.09) -0.02 (0.13)	(0.09) -0.02 (0.13)
LargeGrace × Secondary	-0.06 (0.14)	-0.06 (0.13)	-0.06 (0.13)	-0.06 (0.13)
Cow × Secondary	0.05 (0.15)	0.07 (0.14)	0.07 (0.14)	0.07 (0.14)
Large × College	0.01 (0.17)	-0.01 (0.16)	- 0.00 (0.16)	- 0.00 (0.16)
$LargeGrace \times College$	0.01 (0.16)	-0.01 (0.16)	-0.01 (0.16)	-0.01 (0.16)
$Cow \times College$	-0.01 (0.19)	0.01 (0.17)	0.01 (0.17)	0.01 (0.17)
Female		-0.30*** (0.08)	-0.30*** (0.08)	-0.30*** (0.08)
Secondarv × Female		0.61*** (0.15)	0.62*** (0.16)	0.62*** (0.16)
College \times Female		0.51*** (0.14)	0.51*** (0.14)	0.51*** (0.14)
Large × Female		0.27** (0.12)	0.27** (0.12)	0.27** (0.12)
LargeGrace × Female		0.20* (0.11)	0.20* (0.11)	0.20* (0.11)
Cow × Female		0.37*** (0.11)	0.37*** (0.11)	0.37*** (0.11)
$Large \times Secondary \times Female$		-0.51** (0.21)	-0.51^{**} (0.21)	-0.51** (0.21)
LargeGrace × Secondarv × Female		-0.41** (0.20)	-0.41** (0.20)	-0.41** (0.20)
$Cow \times Secondary \times Female$		-0.58*** (0.22)	-0.58*** (0.22)	-0.58*** (0.22)
Large × College × Female		-0.36* (0.19)	-0.36* (0.19)	-0.36* (0.19)
LargeGrace × College × Female		-0.07 (0.20)	-0.06 (0.21)	-0.06 (0.21)
Cow × College × Female		-0.43^* (0.24)	-0.43* (0.23)	-0.43* (0.23)
FloodInRd1			-0.01 (0.03)	-0.01 (0.03)
EldestSon			- 0.00 (0.04)	- 0.00 (0.04)
EldestDaughter	0.42*	0.400	-0.00 (0.05)	- 0.00 (0.05)
BStatusindividual rejection	-0.12* (0.06)	-0.10* (0.06)	-0.10* (0.06)	-0.10* (0.06)
BStatusgroup rejection	-0.03 (0.06)	-0.06 (0.06)	-0.06 (0.05)	-0.06 (0.05)
HHsize	0.02 (0.02)	0.05 (0.03)	0.05 (0.03)	0.05 (0.03)
ChildAgeOrderAtRd1	0.210	-0.06 (0.04)	-0.06 (0.04)	-0.06 (0.04)
$ar{R}^2 N$	0.218 542	0.231 542	0.226 542	0.226 542

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4).

Table 17: FD estimation of school enrollment, round 1 vs. round 4 differences by attributes

James of Street Entre				211 1 21121 1 22
covariates	(1) 0.58***	(2) 0.71***	(3) 0.71***	(4) 0.71***
(Intercept)	(0.06)	(0.09)	(0.13)	(0.13)
Secondary	-0.45*** (0.05)	-0.45*** (0.10)	-0.45*** (0.10)	-0.45*** (0.10)
College	-0.50*** (0.06)	-0.48*** (0.12)	-0.49*** (0.13)	-0.49*** (0.13)
Unfront	-0.13*** (0.05)	-0.12^* (0.07)	-0.13^* (0.07)	-0.13* (0.07)
WithGrace	0.02 (0.05)	0.03 (0.07)	0.04 (0.07)	0.04 (0.07)
InKind	-0.01 (0.06)	-0.04 (0.08)	-0.05 (0.08)	-0.05 (0.08)
WithGrace × Secondary		-0.03 (0.12)	-0.05 (0.12)	-0.05 (0.12)
WithGrace × College		-0.01 (0.15)	-0.03 (0.15)	-0.03 (0.15)
$Up front \times Secondary$		-0.03 (0.13)	-0.03 (0.13)	-0.03 (0.13)
Unfront × College		-0.02 (0.16)	-0.02 (0.16)	-0.02 (0.16)
$InKind \times Secondary$		0.13 (0.12)	0.15 (0.12)	0.15 (0.12)
InKind × College		0.01 (0.15)	0.03 (0.15)	0.03 (0.15)
Female		-0.30*** (0.08)	-0.30*** (0.08)	-0.30*** (0.08)
Secondary × Female		0.61*** (0.15)	0.61*** (0.15)	0.61*** (0.15)
College \times Female		0.51*** (0.14)	0.50*** (0.15)	0.50*** (0.15)
WithGrace × Female		-0.07 (0.12)	-0.08 (0.12)	-0.08 (0.12)
$Up front \times Female$		0.28** (0.12)	0.28** (0.12)	0.28** (0.12)
InKind × Female		0.16 (0.11)	0.17 (0.12)	0.17 (0.12)
WithGrace \times Secondary \times Female		0.10 (0.19)	0.14 (0.20)	0.14 (0.20)
WithGrace × College × Female		0.31 (0.20)	0.35* (0.21)	0.35* (0.21)
$Up front \times Secondary \times Female$		-0.52** (0.21)	-0.51** (0.21)	-0.51** (0.21)
Unfront × College × Female		-0.38* (0.20)	-0.36* (0.19)	-0.36* (0.19)
$InKind \times Secondary \times Female$		-0.16 (0.21)	-0.19 (0.21)	-0.19 (0.21)
InKind × College × Female		-0.36 (0.25)	-0.41* (0.25)	-0.41* (0.25)
FloodInRd1			-0.01 (0.03)	-0.01 (0.03)
Head literate			-0.03 (0.08)	-0.03 (0.08)
Head age			0.00 (0.00)	0.00 (0.00)
EldestSon			0.00 (0.05)	0.00 (0.05)
EldestDaughter			- 0.00 (0.05)	- 0.00 (0.05)
HHsize	0.02 (0.02)	0.06* (0.03)	0.06* (0.03)	0.06* (0.03)
ChildAgeOrderAtRd1	(2.3=)	-0.07 (0.04)	-0.07 (0.05)	-0.07 (0.05)
$ar{R}^2 N$	0.221 542	0.229 542	0.225 539	0.225 539
_,				

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer.

TABLE 18: ANCOVA ESTIMATION OF SCHOOL ENROLLMENT

TABLE	10. 11110	OVAESIII	VIATION OF	SCHOOL EN	KOLLWILMI		
covariates	mean/std	(1) 0.91	(2) 0.69	(3)	(4)	(5)	(6)
(Intercept)	0.225	(0.0)	(0.0)	0.75 (0.0)	0.89 (0.0)	0.73 (0.0)	0.86 (0.0)
Secondary	0.338 (0.47)			-0.11 (0.0)	-0.09 (0.0)	-0.11 (0.0)	-0.09 (0.0)
College	$0.172 \\ (0.38)$			-0.21 (0.0)	-0.18 (0.0)	-0.20 (0.0)	-0.18 (0.0)
Large	0.272 (0.44)	-0.03 (38.5)	-0.04 (20.0)	-0.04 (15.0)	-0.04 (13.6)	-0.04 (16.8)	-0.04 (14.3)
LargeGrace	0.247 (0.43)	-0.04 (21.6)	-0.05 (12.1)	-0.04 (12.5)	-0.05 (9.7)	-0.04 (13.4)	-0.04 (11.3)
Cattle	0.257 (0.44)	-0.05 (16.7)	-0.06 (5.5)	-0.06 (2.3)	-0.06 (3.1)	-0.06 (2.7)	-0.05 (3.9)
Large × Secondary	0.085 (0.28)	(1017)	(0.0)	-0.01 (90.6)	0.00 (92.5)	-0.00 (95.1)	0.01 (89.4)
LargeGrace × Secondary	0.083 (0.28)			-0.07 (12.8)	-0.08 (11.6)	-0.07 (15.5)	-0.08 (11.0)
Cattle \times Secondary	0.088 (0.28)			-0.01 (77.3)	-0.01 (80.0)	-0.01 (82.5)	-0.01 (83.0)
Large × College	0.049 (0.22)			0.03 (68.1)	0.04 (58.4)	0.04 (51.3)	0.06 (34.0)
LargeGrace × College	0.049 (0.22)			-0.02 (72.4)	-0.04 (59.1)	-0.02 (78.6)	-0.03 (68.8)
Cattle × College	0.035 (0.18)			-0.11 (16.2)	-0.13 (8.3)	-0.07 (28.4)	-0.09 (19.7)
Female	0.450 (0.50)			(10.2)	(0.5)	0.05 (2.9)	0.05 (4.9)
Secondary × Female	0.152 (0.36)					0.08 (0.4)	0.08 (0.9)
College × Female	0.059 (0.24)					0.12 (2.0)	0.10 (6.4)
Large × Female	0.121 (0.33)					0.01 (92.1)	0.03 (64.1)
LargeGrace × Female	0.114 (0.32)					0.08 (10.5)	0.06 (19.0)
Cattle \times Female	0.114 (0.32)					0.07 (16.0)	0.08 (11.3)
$Large \times Secondary \times Female$	0.041 (0.20)					-0.09 (34.0)	-0.11 (20.0)
$LargeGrace \times Secondarv \times Female$	0.036 (0.19)					0.10 (26.7)	0.12 (18.8)
Cattle \times Secondary \times Female	0.037 (0.19)					0.05 (58.0)	0.06 (52.9)
$Large \times College \times Female$	0.016 (0.12)					0.08 (58.1)	0.11 (46.2)
$LargeGrace \times College \times Female$	0.018 (0.13)					-0.03 (84.5)	0.01 (95.2)
Cattle \times College \times Female	0.010 (0.10)					0.18 (25.5)	0.17 (30.8)
FloodInRd1	0.464 (0.50)				-0.04 (4.8)	(23.3)	-0.05 (3.6)
EldestSon	0.267 (0.44)				0.00 (89.8)		0.04 (31.8)
EldestDaughter	0.188 (0.39)				0.04 (23.9)		0.01 (77.2)
Head literate()	0.108 (0.31)				0.06 (1.8)		0.06 (1.8)
Head age0	39.153 (7.38)				-0.00 (7.7)		-0.00 (7.6)
Enrolled0	0.760 (0.43)		0.29 (0.0)	0.32 (0.0)	0.29 (0.0)	0.31 (0.0)	0.29 (0.0)
ChildAgeOrderAtRd1	1.826 (0.98)		(0.0)	(0.0)	0.02 (21.7)	(0.0)	0.02 (24.6)
HHsize()	4.974 (1.15)				-0.02 (21.5)		-0.01 (32.9)
mean of dependent variable $T = 2$	(1.13)	0.88 75	0.88 75	0.88 75	0.88	0.88 75	0.88
T = 2 $T = 3$ $T = 4$		112 539	112 539	112 539	103 500	112 539	103 500
$egin{array}{ccc} I &= 4 & & & \\ ar{R}^2 & N & & & & \\ N & & & & & \\ \end{array}$	1841	0.002 1976	0.15 1976	0.208 1976	0.2 1841	0.222 1976	0.209 1841
Z V	1041	17/0	19/0	17/0	1041	17/0	1041

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Secondary and College are indicator variables of secondary schooling (ages 13-15) and tertiary schooling (ages 16-18), both at the time of baseline. Default category is primary (ages 05-12). Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 19: ANCOVA ESTIMATION OF SCHOOL ENROLLMENT BY ATTRIBUTES

TABLE 19. AT	ICO VA	ESTIMATION	or school	LENKULLIME	NI DI AII	KIDUTES	
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		0.91 (0.0)	0.69 (0.0)	0.75 (0.0)	0.89 (0.0)	$ \begin{array}{c} 0.73 \\ (0.0) \end{array} $	0.86 (0.0)
Secondary	0.338 (0.47)			-0.11 (0.0)	-0.09 (0.0)	-0.11 (0.0)	-0.09 (0.0)
College	0.172 (0.38)			-0.21 (0.0)	-0.18 (0.0)	-0.20 (0.0)	-0.18 (0.0)
Unfront	0.776 (0.42)	-0.03 (38.5)	-0.04 (20.0)	-0.04 (15.0)	-0.04 (13.6)	-0.04 (16.8)	-0.04 (14.3)
WithGrace	0.504 (0.50)	-0.01 (81.4)	-0.01 (76.5)	0.00 (99.6)	-0.00 (97.6)	-0.00 (96.0)	-0.00 (98.2)
InKind	0.257 (0.44)	-0.01 (86.0)	-0.01 (83.9)	-0.02 (53.1)	-0.01 (66.5)	-0.02 (62.8)	-0.01 (73.9)
WithGrace × Secondary	$0.171 \\ (0.38)$			-0.07 (9.4)	-0.09 (6.1)	-0.07 (10.5)	-0.09 (5.9)
Unfront × Secondary	0.255 (0.44)			-0.01 (90.6)	0.00 (92.5)	-0.00 (95.1)	0.01 (89.4)
InKind \times Secondary	$0.088 \\ (0.28)$			0.06 (15.6)	0.07 (14.0)	0.06 (16.2)	0.07 (12.5)
WithGrace × College	0.084 (0.28)			-0.05 (40.1)	-0.07 (26.0)	-0.06 (34.4)	-0.09 (17.3)
$Upfront \times College$	0.134 (0.34)			0.03 (68.1)	0.04 (58.4)	0.04 (51.3)	0.06 (34.0)
InKind × College	0.035 (0.18)			-0.08 (24.8)	-0.09 (21.2)	-0.05 (42.5)	-0.06 (39.7)
Female	0.450 (0.50)					0.05 (2.9)	0.05 (4.9)
Secondarv × Female	0.152 (0.36)					0.08 (0.4)	0.08 (0.9)
College \times Female	0.059 (0.24)					0.12 (2.0)	0.10 (6.4)
WithGrace × Female	0.228 (0.42)					0.08 (22.3)	0.04 (57.7)
Upfront \times Female	0.349 (0.48)					0.01 (92.1)	0.03 (64.1)
InKind \times Female	0.114 (0.32)					-0.01 (84.0)	0.02 (79.7)
WithGrace \times Secondary \times Female	0.074 (0.26)					$ \begin{array}{c} 0.19 \\ (0.5) \end{array} $	0.23 (0.1)
Unfront × Secondarv × Female	0.115 (0.32)					-0.09 (34.0)	-0.11 (20.0)
$InKind \times Secondary \times Female$	0.037 (0.19)					-0.05 (51.7)	-0.06 (45.0)
WithGrace × College × Female	0.028 (0.17)					-0.11 (40.6)	-0.10 (48.3)
$Upfront \times College \times Female$	0.044 (0.21)					0.08 (58.1)	0.11 (46.2)
InKind × College × Female	0.010 (0.10)					0.21 (15.9)	0.16 (32.2)
FloodInRd1	0.464 (0.50)				-0.04 (4.8)		-0.05 (3.6)
EldestSon	0.267 (0.44)				0.00 (89.8)		0.04 (31.8)
EldestDaughter	0.188 (0.39)				0.04 (23.9)		0.01 (77.2)
Head literate0	0.108 (0.31)				0.06 (1.8)		0.06 (1.8)
Head age0	39.153 (7.38)				-0.00 (7.7)		-0.00 (7.6)
Enrolled0	0.760 (0.43)		0.29 (0.0)	$ \begin{array}{c} 0.32 \\ (0.0) \end{array} $	0.29 (0.0)	0.31 (0.0)	0.29 (0.0)
ChildAgeOrderAtRd1	1.826 (0.98)				0.02 (21.7)		0.02 (24.6)
HHsize0	4.974 (1.15)				-0.02 (21.5)		-0.01 (32.9)
mean of dependent variable $T = 2$		0.88 75	0.88 75	0.88 75	0.88 63	0.88 75	0.88 63
T = 3 $T = 4$		112 539	112 539	112 539	103 500	112 539	103 500
$ar{R}^2 N$	1841	0.002 1976	0.15 1976	0.208 1976	0.2 1841	0.222 1976	0.209 1841

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed wice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, lnKind is an indicator variable of the arm which lends a heifer. Secondary and College are indicator variables of secondary schooling (ages 13-15) and tertiary schooling (ages 16-18), both at the time of baseline. Default category is primary (ages 05-12). Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 20: ANCOVA estimation of school enrollment by poverty status

Table 20: ANC							
covariates (Intercept)	mean/std	(1)	(2)	(3) 0.76	(4) 0.90	(5) 0.74	(6) 0.86
	0.220	0.93 (0.0)	0.70 (0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Secondary	0.338 (0.47)			-0.11 (0.0)	-0.09 (0.0)	-0.11 (0.0)	-0.09 (0.0)
College	$0.172 \\ (0.38)$			-0.21 (0.0)	-0.18 (0.0)	-0.19 (0.0)	-0.18 (0.0)
Unfront	0.776 (0.42)	-0.05 (17.7)	-0.04 (10.8)	-0.05 (8.2)	-0.05 (8.6)	-0.04 (10.5)	-0.05 (9.4)
WithGrace	0.504 (0.50)	-0.01 (81.7)	-0.01 (76.7)	-0.00 (98.7)	-0.00 (92.8)	-0.00 (91.9)	-0.00 (91.6)
InKind	0.257 (0.44)	-0.01 (81.2)	-0.01 (75.6)	-0.02 (47.5)	-0.02 (64.0)	-0.02 (54.6)	-0.01 (68.0)
UltraPoor	0.612 (0.49)	0.04 (10.6)	0.03 (22.0)	0.03 (21.2)	0.03 (22.9)	0.03 (21.2)	0.03 (20.4)
WithGrace × Secondary	0.171 (0.38)	(10.0)	(22.0)	-0.07 (9.3)	-0.09	-0.06	-0.08
Upfront × Secondary	0.255 (0.44)			-0.00 (99.2)	(5.4)	(11.4) -0.00	(5.9)
InKind × Secondary	0.088			0.06	(84.5)	(97.5)	(88.4)
WithGrace × College	(0.28) 0.084			(14.5) -0.05	(11.8) -0.07	(13.2) -0.05	(9.1) -0.08
Unfront × College	0.084 (0.28) 0.134			-0.05 (41.1) 0.01	(26.0)	(37.0)	(18.0) 0.05
InKind × College	0.134 (0.34) 0.035			(80.2)	(68.4) -0.10	(69.4) -0.05	(46.2) -0.06
Unfront × UltraPoor	(0.18)	-0.04	-0.02	-0.09 (23.0) -0.01	(18.3)	(40.2) -0.01	(38.8)
	(0.50)	(69.1)	(78.1)	(91.1)	(99.2)	(89.1)	(97.8)
WithGrace × UltraPoor	0.350 (0.48)	-0.02 (79.2)	0.00 (97.6)	0.00 (96.9)	0.02 (74.1)	-0.01 (94.1)	0.01 (84.9)
InKind × UltraPoor	0.186 (0.39)	0.01 (80.0)	0.03 (58.3)	0.01 (77.4)	-0.02 (72.4)	0.03 (52.8)	0.01 (85.2)
Secondary × UltraPoor	$0.215 \\ (0.41)$	-0.02 (59.5)	-0.04 (30.4)	-0.03 (36.1)	-0.03 (40.6)	-0.03 (32.4)	-0.03 (35.5)
College × UltraPoor	0.103 (0.30)	0.09 (19.8)	0.04 (48.4)	0.04 (40.1)	0.05 (39.5)	0.06 (25.6)	0.05 (32.4)
Female	0.450 (0.50)					0.05 (2.7)	0.05 (4.9)
Secondary × Female	0.152 (0.36)					0.08 (0.6)	0.08 (1.3)
College \times Female	0.059 (0.24)					0.12 (1.3)	0.11 (4.4)
Female × UltraPoor	0.276 (0.45)					(7.3)	0 07 (7.2)
WithGrace \times Female	0.228 (0.42)					0.07 (24.9)	0.03 (61.9)
Unfront × Female	0.349 (0.48)					-0.00 (96.2)	0.02 (74.8)
$InKind \times Female$	0.114 (0.32)					-0.02 (76.0)	0.01 (87.5)
WithGrace × Secondarv × Female	0.074 (0.26)					0.19 (0.6)	0.23 (0.1)
Upfront \times Secondary \times Female	0.115 (0.32)					-0.10 (27.1)	-0.12 (17.4)
$InKind \times Secondarv \times Female$	0.037 (0.19)					-0.04 (61.7)	-0.04
WithGrace \times College \times Female	0.028 (0.17)					-0.09 (46.5)	(57.6) -0.08 (57.4)
Unfront \times College \times Female	0.044					0.06	0.09
$InKind \times College \times Female$	(0.21) 0.010					(63.9) 0.22 (12.7)	(53.4)
FloodInRd1	(0.10)				-0.04	(12.7)	(26.6) -0.05
EldestSon	(0.50) 0.267				(4.4)		(2.5)
EldestDaughter	(0.44) 0.188				(94.0)		(31.0)
Head literate0	(0.39) 0.108				(22.2)		(70.9) 0.05
Head age()	(0.31) 39.153				(2.3) -0.00		(2.9) -0.00
Enrolled0	(7.38) 0.760		0.29 (0.0)	0.32	(10.6) 0.29	0.31	(11.2) 0.29
ChildAgeOrderAtRd1	(0.43) 1.826		(0.0)	(0.0)	(0.0)	(0.0)	$(0.\overline{0})$ 0.02
HHsize0	(0.98)				(22.9)		(27.4) -0.01
mean of dependent variable	4.974 (1.15)	0.88	0.88	0.88	-0.02 (19.7) 0.88	0.88	(36.0) 0.88
T=2		75	75	75	63	75	63
$T = 3$ $T = 4$ \bar{p}^2		112 539	112 539	112 539	103 500	112 539 0.225	500
$ar{R}^2 N$	1841	0.008 1976	0.151 1976	0.209 1976	0.201 1841	1976	1841

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsizeQii household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1x(T=2)+2x(T=3)+3x(T=4) Large Large Grace. Cattle

Table 21: ANCOVA estimation of school enrollment by time

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		0.92 (0.0)	0.70 (0.0)	0.70 (0.0)	0.81 (0.0)	0.69 (0.0)	0.78 (0.0)
Secondary	0.338 (0.47)	-0.08 (0.1)	-0.15 (0.0)	-0.15 (0.0)	-0.12 (0.0)	-0.14 (0.0)	-0.12 (0.0)
College	$0.172 \\ (0.38)$	-0.21 (0.0)	-0.24 (0.0)	-0.24 (0.0)	-0.21 (0.0)	-0.22 (0.0)	$^{-0.20}_{(0.0)}$
Large	0.272 (0.44)	-0.03 (43.5)	-0.04 (18.4)	-0.04 (18.4)	-0.04 (20.4)	-0.04 (25.1)	-0.03 (36.5)
LargeGrace	0.247 (0.43)	-0.04 (31.7)	-0.05 (14.7)	-0.05 (14.7)	-0.04 (12.7)	-0.04 (22.2)	-0.03 (24.3)
Cattle	0.257 (0.44)	-0.06 (13.6)	-0.07 (2.2)	-0.07 (2.2)	-0.06 (4.0)	-0.06 (4.1)	-0.05 (8.0)
$Large \times Secondary$	$0.085 \\ (0.28)$	0.06 (36.5)	0.03 (62.5)	0.03 (62.5)	0.05 (42.5)	0.04 (54.5)	0.06 (34.3)
LargeGrace × Secondary	0.083 (0.28)	-0.08 (27.6)	-0.08 (22.9)	-0.08 (22.9)	-0.07 (29.5)	-0.05 (45.4)	-0.05 (43.3)
Cattle \times Secondary	$0.088 \\ (0.28)$	-0.03 (67.5)	-0.02 (77.5)	-0.02 (77.5)	-0.01 (91.4)	-0.01 (87.1)	0.00 (98.8)
Large × College	0.049 (0.22)	0.05 (53.7)	0.04 (60.1)	0.04 (60.1)	0.06 (41.4)	0.07 (39.9)	0.15 (5.9)
LargeGrace × College	0.049 (0.22)	-0.00 (98.4)	0.00 (99.7)	0.00 (99.7)	-0.01 (91.5)	0.00 (99.2)	0.02 (83.9)
Cattle x College	0.035 (0.18)	-0.16 (17.4)	-0.09 (26.3)	-0.09 (26.3)	-0.11 (16.0)	-0.05 (57.5)	-0.05 (59.5)
Female	0.450 (0.50)					0.04 (5.3)	0.05 (5.1)
Secondarv × Female	0.152 (0.36)					0.11 (0.4)	0.10 (0.6)
College \times Female	0.059 (0.24)					0.07 (18.9)	0.08 (19.3)
Large × Female	0.12.1 (0.33)					0.02 (76.4)	0.04 (44.3)
$LargeGrace \times Female$	0.114 (0.32)					0.10 (5.6)	0.08 (11.6)
Cattle \times Female	0.114 (0.32)					0.06 (20.3)	0.07 (13.9)
$Large \times Secondary \times Female$	0.041 (0.20)					-0.14 (18.1)	-0.18 (4.9)
LargeGrace × Secondary × Female	0.036 (0.19)					(38.0)	0.09 (35.5)
Cattle \times Secondary \times Female	0.037 (0.19)					-0.05 (67.9)	-0.04 (75.9)
Large × College × Female	0.016 (0.12)					0.10 (58.1)	0.26 (15.8)
$LargeGrace \times College \times Female$	0.018 (0.13)					-0.04 (85.4)	0.06 (78.5)
Cattle × College × Female	0.010 (0.10)					0.23 (21.8)	0.25 (22.4)

TABLE 21: ANCOVA ESTIMATION OF SCHOOL ENROLLMENT BY TIME (CONTINUED)

	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
rd 3	0.344 (0.48)	0.06 (0.0)	$0.06 \\ (0.0)$	$0.06 \\ (0.0)$	0.04 (0.0)	0.06 (0.0)	0.04 (0.1)
Secondarv × rd 3	0.117 (0.32)	0.01 (86.0)	-0.02 (47.1)	-0.02 (47.1)	-0.04 (21.8)	-0.03 (35.9)	-0.05 (15.2)
College \times rd 3	0.055 (0.23)	0.04 (34.6)	-0.02 (69.2)	-0.02 (69.2)	-0.03 (43.1)	-0.01 (73.0)	-0.04 (36.9)
Large × rd 3	0.091 (0.29)	-0.06 (8.6)	-0.05 (9.8)	-0.05 (9.8)	-0.06 (6.7)	-0.05 (13.7)	-0.07 (2.1)
LargeGrace × rd 3	0.086 (0.28)	-0.04 (34.1)	-0.05 (18.8)	-0.05 (18.8)	-0.07 (6.6)	-0.07 (8.5)	-0.08 (1.8)
Cattle \times rd 3	0.090 (0.29)	-0.02 (54.9)	-0.03 (34.6)	-0.03 (34.6)	-0.04 (24.8)	-0.04 (26.7)	-0.06 (15.9)
Large \times Secondary \times rd 3	0.028 (0.16)	-0.05 (52.8)	-0.04 (63.4)	-0.04 (63.4)	-0.07 (36.0)	-0.04 (61.0)	-0.08 (32.9)
LargeGrace \times Secondarv \times rd 3	0.028 (0.16)	0.08 (34.4)	0.08 (31.6)	0.08 (31.6)	0.04 (65.3)	0.02 (80.4)	-0.01 (90.9)
Cattle \times Secondary \times rd 3	0.032 (0.17)	0.08 (45.6)	0.08 (42.0)	0.08 (42.0)	0.04 (64.8)	0.08 (39.9)	0.05 (61.9)
Large × College × rd 3	0.015 (0.12)	0.02 (84.8)	-0.01 (92.4)	-0.01 (92.4)	-0.07 (56.1)	0.01 (95.3)	-0.13 (22.3)
LargeGrace × College × rd 3	0.017 (0.13)	-0.01 (89.8)	-0.00 (96.9)	-0.00 (96.9)	-0.02 (88.6)	-0.00 (98.8)	-0.05 (65.9)
Cattle × College × rd 3	0.012 (0.11)	0.11 (41.0)	0.02 (85.0)	0.02 (85.0)	-0.00 (96.9)	-0.04 (73.2)	-0.09 (50.3)
Female × rd 3	0.156 (0.36)	, ,	, ,	, ,	, ,	-0.01 (67.2)	-0.00 (85.0)
Large × Female × rd 3	0.041 (0.20)					0.03 (60.9)	0.02 (64.2)
LargeGrace \times Female \times rd 3	0.040 (0.20)					-0.02 (77.8)	0.01 (86.9)
Cattle \times Female \times rd 3	0.040 (0.20)					0.05 (44.9)	0.06 (39.3)
Large \times Secondary \times Female \times rd 3	0.014 (0.12)					0.08 (64.2)	0.10 (51.1)
LargeGrace × Secondarv × Female ×	0.012 (0.11)					0.10 (50.9)	0.14 (37.2)
Cattle \times Secondary \times Female \times rd 3	0.012 (0.11)					0.31 (8.4)	0.24 (13.2)
Large \times College \times Female \times rd 3	0.003 (0.06)					0.17 (38.3)	-0.06 (75.2)
LargeGrace \times College \times Female \times rd 3	3 0.005 (0.07)					0.17 (37.1)	0.09 (67.6)
Cattle \times College \times Female \times rd 3	0.003 (0.06)					-0.22 (36.4)	-0.27 (33.9)
Secondary \times Female \times rd 3	0.052 (0.22)					-0.05 (42.7)	-0.02 (74.4)
College × Female × rd 3	0.016 (0.13)					0.03 (69.1)	0.00 (99.3)

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Secondary and College are indicator variables of secondary schooling (ages 13-15) and tertiary schooling (ages 16-18), both at the time of baseline. Default category is primary (ages 05-12). rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

TABLE 22: ANCOVA ESTIMATION OF SCHOOL ENROLLMENT BY TIME (CONTINUED 2)

11.DEE 22. 111.00 V		11011 01	SCHOOL LIVIN	,,, I			,
covariates rd 4	mean/std 0.294	(1) 0.10	(2) 0.13	(3) 0.13	(4) 0.12	(5) 0.13	(6) 0.12
Secondary × rd 4	(0.46) 0.150	(0.0)	(0.0) -0.03	(0.0) -0.03	(0.0) -0.05	(0.0) -0.05	(0.0) -0.06
	(0.36)	(11.6)	(41.3)	(41.3)	(26.8)	(26.4)	-0.06 (17.8) -0.04
College × rd 4	0.062 (0.24)	(0.8)	-0.02 (71.0)	-0.02 (71.0)	-0.03 (48.0)	-0.02 (57.6)	(33.0)
WithGrace × rd 4	0.147 (0.35)	0.01 (75.9)	0.01 (76.2)	0.01 (76.2)	0.01 (73.3)	-0.00 (94.1)	(62.8)
Upfront × rd 4	0.232 (0.42)	-0.05 (19.3)	-0.06 (16.2)	-0.06 (16.2)	-0.07 (11.1)	-0.07 (11.1)	-0.09 (2.2)
InKind × rd 4	0.073 (0.26)	0.04 (37.8)	0.02 (67.8)	0.02 (67.8)	0.02 (69.2)	0.02 (49.6)	0.02 (58.2)
WithGrace × Secondary × rd 4	0.076 (0.27)	0.18 (9.1)	0.15 (10.3)	0.15 (10.3)	0.15 (11.9)	(28.7)	0.11 (24.3)
Unfront × Secondarv × rd 4	0.114 (0.32)	-0.04 (69.7)	-0.03 (74.4)	-0.03 (74.4)	-0.09 (38.5)	-0.03 (71.3)	-0.09 (33.5)
$InKind \times Secondary \times rd 4$	0.040 (0.20)	-0.09 (46.8)	-0.05 (60.8)	-0.05 (60.8)	-0.05 (67.4)	-0.01 (93.7)	-0.01 (93.5)
WithGrace × College × rd 4	0.029 (0.17)	-0.09 (33.7)	-0.05 (59.9)	-0.05 (59.9)	-0.01 (87.8)	-0.02 (83.4)	0.07 (41.4)
Upfront \times College \times rd 4	0.049 (0.22)	-0.05 (72.9)	-0.05 (70.1)	-0.05 (70.1)	-0.08 (49.6)	-0.09 (46.1)	-0.22 (5.7)
$InKind \times College \times rd \ 4$	0.012 (0.11)	0.08 (50.1)	0.02 (83.1)	0.02 (83.1)	0.03 (79.2)	-0.02 (84.1)	0.01 (94.7)
Female × rd 4	0.142 (0.35)					-0.04 (6.1)	-0.04 (3.3)
WithGrace \times Female \times rd 4	0.071 (0.26)					-0.06 (20.5)	-0.07 (15.8)
Upfront \times Female \times rd 4	0.112 (0.32)					0.13 (1.3)	0.12 (2.6)
InKind \times Female \times rd 4	0.034 (0.18)					0.08 (26.4)	0.10 (14.9)
WithGrace \times Secondary \times Female \times rd	4 0.037 (0.19)					-0.17 (33.2)	-0.14 (37.3)
Upfront \times Secondarv \times Female \times rd	0.054 (0.23)					-0.10 (56.6)	-0.00 (99.5)
InKind \times Secondary \times Female \times rd 4	0.019 (0.14)					0.31 (10.3)	0.17 (33.5)
WithGrace × College × Female × rd	0.012 (0.11)					0.35 (5.4)	0.55 (0.1)
Upfront \times College \times Female \times rd 4	0.023 (0.15)					-0.19 (40.3)	-0.50 (4.0)
$InKind \times College \times Female \times rd 4$	0.004 (0.07)					-0.19 (46.6)	-0.15 (57.6)
Secondary \times Female \times rd 4	0.070 (0.26)					-0.04 (47.7)	-0.02 (69.5)
College × Female × rd 4	0.032 (0.17)					0.14 (11.0)	0.13 (15.6)
FloodInRd1	0.464 (0.50)				-0.05 (4.2)	(,,,	-0.05 (2.8)
EldestSon	0.267 (0.44)				0.02 (62.9)		0.04 (22.2)
EldestDaughter	0.188 (0.39)				0.04 (28.3)		0.01 (84.8)
Head literate0	0.108 (0.31)				0.06 (2.7)		0.05 (2.9)
Head age0	39.153 (7.38)				-0.00 (26.3)		-0.00 (21.8)
Enrolled0	0.760 (0.43)		0.33 (0.0)	0.33 (0.0)	0.30 (0.0)	0.32 (0.0)	0.30 (0.0)
ChildAgeOrderAtRd1	1.826 (0.98)		(0.0)	(0.0)	0.02 (23.0)	(0.0)	0.02 (25.3)
HHsize()	4.974 (1.15)				-0.01 (25.6)		-0.01 (39.6)
mean of dependent variable $T = 2$	(1.13)	0.88 75	0.88 75	0.88 75	0.88	0.88 75	0.88
T = 2 $T = 3$ $T = 4$		112 539	112 539	112 539	103 500	112 539	103 500
$egin{array}{cccccccccccccccccccccccccccccccccccc$	1841	0.056 1976	0.226 1976	0.226 1976	0.215 1841	0.235 1976	0.221 1841
1 V	1041	1970	1970	17/0	1041	19/0	10+1

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Secondary and College are indicator variables of secondary schooling (ages 13-15) and tertiary schooling (ages 16-18), both at the time of baseline. Default category is primary (ages 05-12). rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 23: ANCOVA estimation of school enrollment by attributes and time

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		0.92 (0.0)	0.70 (0.0)	$ \begin{array}{c} 0.70 \\ (0.0) \end{array} $	0.81 (0.0)	0.69 (0.0)	0.78 (0.0)
Secondary	0.338 (0.47)	-0.08 (0.1)	-0.15 (0.0)	-0.15 (0.0)	-0.12 (0.0)	-0.14 (0.0)	-0.12 (0.0)
College	$0.172 \\ (0.38)$	$^{-0.21}_{(0.0)}$	-0.24 (0.0)	$^{-0.24}_{(0.0)}$	-0.21 (0.0)	-0.22 (0.0)	-0.20 (0.0)
Unfront	0.776 (0.42)	-0.03 (43.5)	-0.04 (18.4)	-0.04 (18.4)	-0.04 (20.4)	-0.04 (25.1)	-0.03 (36.5)
WithGrace	0.504 (0.50)	-0.01 (88.2)	-0.00 (91.3)	-0.00 (91.3)	-0.00 (90.4)	-0.00 (97.8)	-0.01 (87.4)
InKind	0.257 (0.44)	-0.02 (64.8)	-0.02 (55.5)	-0.02 (55.5)	-0.01 (63.7)	-0.02 (55.2)	-0.01 (60.9)
WithGrace × Secondary	$0.171 \\ (0.38)$	-0.14 (3.2)	-0.11 (5.4)	-0.11 (5.4)	-0.13 (4.5)	-0.08 (13.6)	-0.11 (6.9)
Unfront × Secondary	0.255 (0.44)	0.06 (36.5)	0.03 (62.5)	0.03 (62.5)	0.05 (42.5)	0.04 (54.5)	0.06 (34.3)
InKind \times Secondary	$0.088 \\ (0.28)$	$0.05 \\ (50.8)$	0.06 (31.6)	0.06 (31.6)	0.07 (31.8)	0.04 (54.6)	0.05 (41.8)
WithGrace × College	0.084 (0.28)	-0.06 (46.5)	-0.04 (53.7)	-0.04 (53.7)	-0.07 (31.0)	-0.06 (34.1)	-0.13 (4.6)
Upfront \times College	0.134 (0.34)	0.05 (53.7)	0.04 (60.1)	0.04 (60.1)	0.06 (41.4)	0.07 (39.9)	0.15 (5.9)
InKind × College	0.035 (0.18)	-0.15 (14.9)	-0.09 (19.9)	-0.09 (19.9)	-0.10 (16.5)	-0.05 (51.8)	-0.06 (40.2)
Female	0.450 (0.50)					0.04 (5.3)	0.05 (5.1)
Secondarv × Female	0.152 (0.36)					0.11 (0.4)	0.10 (0.6)
College × Female	0.059 (0.24)					0.07 (18.9)	0.08 (19.3)
WithGrace x Female	0.228 (0.42)					0.09 (19.5)	0.04 (58.3)
Upfront \times Female	0.349 (0.48)					0.02 (76.4)	0.04 (44.3)
InKind × Female	0.114 (0.32)					-0.04 (57.7)	-0.01 (93.1)
WithGrace \times Secondary \times Female	0.074 (0.26)					0.23 (0.7)	0.28 (0.1)
$Unfront \times Secondarv \times Female$	0.115 (0.32)					-0.14 (18.1)	-0.18 (4.9)
$InKind \times Secondary \times Female$	0.037 (0.19)					-0.14 (19.0)	-0.13 (21.6)
WithGrace × College × Female	0.028 (0.17)					-0.13 (36.5)	-0.20 (16.8)
$Upfront \times College \times Female$	0.044 (0.21)					0.10 (58.1)	0.26 (15.8)
InKind × College × Female	0.010 (0.10)					0.27 (10.0)	0.19 (26.7)

TABLE 23: ANCOVA ESTIMATION OF SCHOOL ENROLLMENT BY ATTRIBUTES AND TIME (CONTINUED)

							`	
		mean/std	(1)	(2)	(3)	(4)	(5)	(6)
	rd 3	0.344 (0.48)	$0.06 \\ (0.0)$	$0.06 \\ (0.0)$	$0.06 \\ (0.0)$	$0.04 \\ (0.0)$	$0.06 \\ (0.0)$	0.04 (0.1)
	Secondarv × rd 3	0.117 (0.32)	0.01 (86.0)	-0.02 (47.1)	-0.02 (47.1)	-0.04 (21.8)	-0.03 (35.9)	-0.05 (15.2)
	College × rd 3	$0.055 \\ (0.23)$	0.04 (34.6)	-0.02 (69.2)	-0.02 (69.2)	-0.03 (43.1)	-0.01 (73.0)	-0.04 (36.9)
	WithGrace × rd 3	0.175 (0.38)	0.01 (75.8)	0.00 (99.6)	0.00 (99.6)	-0.01 (80.2)	-0.02 (65.6)	-0.01 (68.9)
	Upfront \times rd 3	0.267 (0.44)	-0.06 (8.6)	-0.05 (9.8)	-0.05 (9.8)	-0.06 (6.7)	-0.05 (13.7)	-0.07 (2.1)
	InKind × rd 3	0.090 (0.29)	0.02 (68.5)	0.02 (67.0)	0.02 (67.0)	0.03 (51.9)	0.02 (59.6)	0.03 (50.4)
	WithGrace \times Secondary \times rd 3	$0.059 \\ (0.24)$	0.13 (17.0)	0.11 (18.7)	0.11 (18.7)	(23.5)	0.06 (50.7)	0.07 (45.8)
	Unfront \times Secondarv \times rd 3	0.087 (0.28)	-0.05 (52.8)	-0.04 (63.4)	-0.04 (63.4)	-0.07 (36.0)	-0.04 (61.0)	-0.08 (32.9)
	InKind \times Secondary \times rd 3	0.032 (0.17)	-0.00 (96.8)	-0.00 (98.7)	-0.00 (98.7)	0.01 (94.0)	0.06 (55.9)	0.06 (58.8)
	WithGrace × College × rd 3	0.029 (0.17)	-0.04 (71.4)	0.01 (94.7)	0.01 (94.7)	0.06 (59.2)	-0.01 (93.6)	0.08 (31.6)
	Upfront \times College \times rd 3	$0.044 \\ (0.21)$	$ \begin{array}{c} 0.02 \\ (84.8) \end{array} $	-0.01 (92.4)	-0.01 (92.4)	-0.07 (56.1)	0.01 (95.3)	-0.13 (22.3)
	InKind \times College \times rd 3	0.012 (0.11)	0.12 (29.5)	0.03 (80.3)	0.03 (80.3)	0.01 (91.6)	-0.04 (72.6)	-0.04 (71.9)
	Female \times rd 3	0.156 (0.36)					-0.01 (67.2)	-0.00 (85.0)
	WithGrace \times Female \times rd 3	$0.080 \\ (0.27)$					-0.04 (45.8)	-0.01 (78.4)
	Upfront \times Female \times rd 3	0.121 (0.33)					0.03 (60.9)	0.02 (64.2)
	InKind \times Female \times rd 3	(0.20)					0.07 (35.2)	0.05 (47.7)
Wi	thGrace \times Secondary \times Female \times rd	3 0.025 (0.16)					0.02 (88.5)	0.05 (76.8)
	$pfront \times Secondarv \times Female \times rd$	0.039 (0.19)					0.08 (64.2)	0.10 (51.1)
I	nKind \times Secondary \times Female \times rd 3	$0.012 \\ (0.11)$					0.21 (23.0)	0.10 (57.4)
	VithGrace × College × Female × rd	0.009 (0.09)					0.00 (97.9)	0.16 (33.2)
	Upfront \times College \times Female \times rd 3	0.012 (0.11)					0.17 (38.3)	-0.06 (75.2)
	InKind × College × Female × rd 3	0.003 (0.06)					-0.39 (8.3)	-0.36 (14.7)
	Secondary \times Female \times rd 3	$0.052 \\ (0.22)$					-0.05 (42.7)	-0.02 (74.4)
	College × Female × rd 3	0.016 (0.13)					0.03 (69.1)	0.00 (99.3)

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Secondary and College are indicator variables of secondary schooling (ages 13-15) and tertiary schooling (ages 16-18), both at the time of baseline. Default category is primary (ages 05-12). rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

TABLE 24: ANCOVA ESTIMATION OF SCHOOL ENROLLMENT BY ATTRIBUTES AND TIME (CONTINUED 2)

INDEE 21: THICO VII ESTIN	1111011 01	SCHOOL L	·ICOLLIVIEI 1	DI MIIKIL	O ILS AND	TIME (COIT)	intold 2)
covariates rd 4	mean/std 0.294	(1) 0.10	(2) 0.13	(3) 0.13	(4) 0.12	(5) 0.13	(6) 0.12
Secondary × rd 4	(0.46)	(0.0) 0.07	(0.0)	(0.0) -0.03	(0.0)	(0.0)	(0.0) -0.06
	0.150 (0.36)	(11.6)	-0.03 (41.3)	(41.3)	-0.05 (26.8)	-0.05 (26.4)	(17.8)
College × rd 4	0.062 (0.24)	0.12 (0.8)	-0.02 (71.0)	-0.02 (71.0)	-0.03 (48.0)	-0.02 (57.6)	-0.04 (33.0)
WithGrace × rd 4	0.147 (0.35)	0.01 (75.9)	0.01 (76.2)	0.01 (76.2)	0.01 (73.3)	-0.00 (94.1)	0.02 (62.8)
Upfront × rd 4	$0.232 \\ (0.42)$	-0.05 (19.3)	-0.06 (16.2)	-0.06 (16.2)	-0.07 (11.1)	-0.07 (11.1)	-0.09 (2.2)
InKind × rd 4	0.073 (0.26)	0.04 (37.8)	0.02 (67.8)	0.02 (67.8)	0.02 (69.2)	0.02 (49.6)	0.02 (58.2)
WithGrace \times Secondary \times rd 4	$0.076 \\ (0.27)$	0.18 (9.1)	(10.3)	0.15 (10.3)	0.15 (11.9)	(28.7)	0.11 (24.3)
Unfront \times Secondarv \times rd 4	0.114 (0.32)	-0.04 (69.7)	-0.03 (74.4)	-0.03 (74.4)	-0.09 (38.5)	-0.03 (71.3)	-0.09 (33.5)
$InKind \times Secondary \times rd 4$	$0.040 \\ (0.20)$	-0.09 (46.8)	-0.05 (60.8)	-0.05 (60.8)	-0.05 (67.4)	-0.01 (93.7)	-0.01 (93.5)
WithGrace × College × rd 4	0.029 (0.17)	-0.09 (33.7)	-0.05 (59.9)	-0.05 (59.9)	-0.01 (87.8)	-0.02 (83.4)	0.07 (41.4)
Upfront \times College \times rd 4	$0.049 \\ (0.22)$	-0.05 (72.9)	-0.05 (70.1)	-0.05 (70.1)	-0.08 (49.6)	-0.09 (46.1)	-0.22 (5.7)
$InKind \times College \times rd 4$	0.012 (0.11)	0.08 (50.1)	0.02 (83.1)	0.02 (83.1)	0.03 (79.2)	-0.02 (84.1)	0.01 (94.7)
Female × rd 4	0.142 (0.35)					-0.04 (6.1)	-0.04 (3.3)
WithGrace \times Female \times rd 4	0.071 (0.26)					-0.06 (20.5)	-0.07 (15.8)
Upfront \times Female \times rd 4	0.112 (0.32)					0.13 (1.3)	0.12 (2.6)
InKind \times Female \times rd 4	0.034 (0.18)					0.08 (26.4)	0.10 (14.9)
$\textit{YithGrace} \times \textit{Secondary} \times \textit{Female} \times \textit{rd}$	40.037 (0.19)					-0.17 (33.2)	-0.14 (37.3)
Upfront × Secondarv × Female × rd	0.054 (0.23)					-0.10 (56.6)	-0.00 (99.5)
$InKind \times Secondary \times Female \times rd \ 4$						0.31 (10.3)	0.17 (33.5)
WithGrace \times College \times Female \times rd	0.012 (0.11)					0.35 (5.4)	0.55 (0.1)
Upfront \times College \times Female \times rd 4	0.023 (0.15)					-0.19 (40.3)	-0.50 (4.0)
$InKind \times College \times Female \times rd 4$	0.004 (0.07)					-0.19 (46.6)	-0.15 (57.6)
Secondary \times Female \times rd 4	0.070 (0.26)					-0.04 (47.7)	-0.02 (69.5)
College × Female × rd 4	0.032 (0.17)					0.14 (11.0)	0.13 (15.6)
FloodInRd1	0.464 (0.50)				-0.05 (4.2)	(,	-0.05 (2.8)
EldestSon	0.267 (0.44)				0.02 (62.9)		0.04 (22.2)
EldestDaughter	0.188 (0.39)				0.04 (28.3)		0.01 (84.8)
Head literate()	0.108 (0.31)				0.06 (2.7)		0.05 (2.9)
Head age0	39.153 (7.38)				-0.00 (26.3)		-0.00 (21.8)
Enrolled0	0.760 (0.43)		0.33 (0.0)	0.33 (0.0)	0.30 (0.0)	0.32 (0.0)	0.30 (0.0)
ChildAgeOrderAtRd1	1.826 (0.98)		(0.0)	(0.0)	0.02 (23.0)	(0.0)	0.02 (25.3)
HHsize()	4.974 (1.15)				-0.01 (25.6)		-0.01 (39.6)
mean of dependent variable $T = 2$	(1.13)	0.88 75	0.88 75	0.88 75	0.88	0.88 75	0.88
T = 2 $T = 3$ $T = 4$		112 539	112 539	112 539	103 500	112 539	103 500
$I = 4$ \bar{R}^2 N	1841	0.056 1976	0.226 1976	0.226 1976	0.215 1841	0.235 1976	0.221 1841
IV	1041	19/0	19/0	19/0	1041	19/0	1041

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Secondary and College are indicator variables of secondary schooling (ages 13-15) and tertiary schooling (ages 16-18), both at the time of baseline. Default category is primary (ages 05-12). rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

III.3 Incomes

Income sources are mainly labour incomes (lab) and farm revenues (far) with 846 and 53 observations at baseline, respectively.

```
[1] excl
[[1]]
TotalHHLabourIncome ~ dummyLarge + dummyLargeGrace + dummyCattle
TotalHHLabourIncome ~ dummyLarge + dummyLargeGrace + dummyCattle +
   TotalHHLabourIncome0
[[3]]
TotalHHLabourIncome ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + TotalHHLabourIncome0 +
   pcHHLabourIncome0
[1] excla
[[1]]
TotalHHLabourIncome ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
TotalHHLabourIncome ~ dummyLargeSize + dummyWithGrace + dummyInKind +
   TotalHHLabourIncome0
[[3]]
TotalHHLabourIncome ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + TotalHHLabourIncome0 +
   pcHHLabourIncome0
[1] exclP
[[1]]
TotalHHLabourIncome ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor
[[2]]
TotalHHLabourIncome ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
   dummyInKind + TotalHHLabourIncome0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
TotalHHLabourIncome ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalHHLabourIncome0 + pcHHLabourIncome0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[1] exclT
[[1]]
TotalHHLabourIncome ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4
TotalHHLabourIncome \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + TotalHHLabourIncome0
```

```
[[3]]
TotalHHLabourIncome ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
   dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalHHLabourIncome0 +
   pcHHLabourIncome0
[1] exclTa
[[1]]
TotalHHLabourIncome ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
   dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
[[2]]
TotalHHLabourIncome ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
   dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + TotalHHLabourIncome0
[[3]]
TotalHHLabourIncome ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalHHLabourIncome0 +
   pcHHLabourIncome0
[1] excl
[[1]]
TotalRevenue ~ dummyLarge + dummyLargeGrace
TotalRevenue ~ dummyLarge + dummyLargeGrace + TotalRevenue0
[[3]]
TotalRevenue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + HHsize0 +
   HeadLiteracy0 + TotalRevenue0
[1] excla
[[1]]
TotalRevenue ~ dummyLargeSize + dummyWithGrace + dummyInKind
TotalRevenue ~ dummyLargeSize + dummyWithGrace + dummyInKind +
   TotalRevenue0
[[3]]
TotalRevenue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + TotalRevenue0
[1] exclP
[[1]]
TotalRevenue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
   dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor
[[2]]
TotalRevenue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
   dummyInKind + TotalRevenue0 + dummyLargeSize.UltraPoor +
```

dummyWithGrace.UltraPoor + dummyInKind.UltraPoor

```
[[3]]
TotalRevenue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalRevenue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor
[1] exclT
[[1]]
TotalRevenue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4
[[2]]
TotalRevenue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + TotalRevenue0
[[3]]
TotalRevenue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + HHsize0 + HeadLiteracy0 + TotalRevenue0
[1] exclTa
[[1]]
TotalRevenue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
   dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4
[[2]]
TotalRevenue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
   dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + TotalRevenue0
TotalRevenue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalRevenue0
```

TABLE 25: ANCOVA ESTIMATION OF HOUSEHOLD LABOUR INCOMES AND FARM INCOMES

		(1)	(2)	(2)
covariates	mean/std	(1)	(2)	(3)
(Intercept)		3467.90 (60.8)	4759.49 (47.5)	-53337.78 (0.0)
Large	0.278 (0.45)	1676.99 (84.7)	1240.15 (88.4)	-1789.41 (81.8)
LargeGrace	0.248 (0.43)	-853.52 (92.6)	-5616.09 (49.5)	-4655.97 (46.0)
Cattle	0.254 (0.44)	-5162.43 (54.6)	-6120.47 (46.6)	-5024.15 (47.9)
FloodInRd1	0.488 (0.50)			7315.54 (13.5)
Head literate0	0.113 (0.32)			-7030.59 (19.2)
household labour income ₁	2397.862 (172385.37)		0.11 (0.0)	0.06 (13.1)
HHsize0	4.405 (1.53)			12620.31 (0.0)
pcHHLabourIncome0	15499.124 (29821.83)			0.15 (54.5)
mean of dependent variable $T = 2$		2410 105	2410 105	2410 105
$\begin{array}{c} T = 3 \\ T = 4 \end{array}$		83 658	83 658	83 658
$ar{R}^2 N$	2557	0 2557	0.051 2557	0.106 2557

B. Farm incomes

mean/std	(1)	(2)	(3)
	-2300.56	-4771.71	-33850.03
	(24.0)	(9.1)	(11.4)
0.468	2324.78	4927.78	2351.52
(0.50)	(53.5)	(13.4)	(53.7)
0.273	27687.83	24706.80	23323.79
(0.45)	(18.1)	(12.1)	(7.9)
0.532 (0.50)			11079.15 (18.0)
0.156 (0.37)			-6527.84 (48.5)
2668.874		0.77	0.51
(15293.24)		(0.9)	(7.0)
5.013 (1.41)			5280.49 (18.7)
	6338	6338	6338
	30	30	30
	22	22	22
	1	1	1
77	0.042	0.098	0.102
	77	77	77
	0.468 (0.50) 0.273 (0.45) 0.532 (0.50) 0.156 (0.37) 2668.874 (15293.24) 5.013 (1.41)	-2300.56 (24.0) 0.468 (0.50) (53.5) 0.273 (0.45) (18.1) 0.532 (0.50) 0.156 (0.37) 2668.874 (15293.24) 5.013 (1.41) 6338 30 22 1 0.042	-2300.56

Source: Estimated with GUK administrative and survey data.

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Labour incomes are in 1000 Tk units and are a sum of all earned labour incomes of household members. Farm revenues are in 1000 Tk units and are a total of agricultural produce sales.

Table 26: ANCOVA estimation of household labour incomes and farm incomes by attributes

covariates	mean/std	(1)	(2)	(3)
(Intercept)		3467.90 (60.8)	4759.49 (47.5)	-53337.78 (0.0)
Upfront	0.779 (0.41)	1676.99 (84.7)	1240.15 (88.4)	-1789.41 (81.8)
WithGrace	0.502 (0.50)	-2530.52 (76.1)	-6856.24 (34.1)	-2866.56 (64.7)
InKind	0.254 (0.44)	-4308.91 (59.8)	-504.38 (94.3)	-368.18 (94.8)
FloodInRd1	0.488 (0.50)			7315.54 (13.5)
Head literate0	0.113 (0.32)			-7030.59 (19.2)
household labour income ₁	2397.862 (172385.37)		0.11 (0.0)	0.06 (13.1)
HHsize0	4.405 (1.53)			12620.31 (0.0)
pcHHLabourIncome0	15499.124 (29821.83)			0.15 (54.5)
mean of dependent variable $T = 2$		2410 105	2410 105	2410 105
T = 3 $T = 4$		83 658	83 658	83 658
$ar{R}^2 N$	2557	0 2557	0.051 2557	0.106 2557

B. Farm incomes

covariates	mean/std	(1)	(2)	(3)
(Intercept)		3683.94 (26.3)	-11409.33 (25.4)	-42940.88 (11.2)
Unfront	0.922 (0.27)	-3659.72 (42.6)	11573.77 (25.6)	10386.47 (32.7)
WithGrace	0.455 (0.50)	25363.06 (22.6)	19424.19 (19.4)	20090.77 (13.0)
InKind	0.182 (0.39)	-30252.62 (14.6)	-21739.98 (14.3)	-19464.51 (10.2)
FloodInRd1	0.532 (0.50)			9792.53 (21.9)
Head literate()	0.156 (0.37)			-6265.76 (51.1)
farm revenue ₁	2668.874 (15293.24)		0.82 (0.6)	0.59 (3.4)
HHsize0	5.013 (1.41)			5645.29 (17.8)
mean of dependent variable $T = 2$		6338 30	6338 30	6338 30
T = 3 $T = 4$		22 1	22 1	22 1
$ar{R}^2 N$	77	0.031 77	0.087 77	0.092 77

Source: Estimated with GUK administrative and survey data.

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Labour incomes are in 1000 Tk units and are a sum of all earned labour incomes of household members. Farm revenues are in 1000 Tk units and are a total of agricultural produce sales.

TABLE 27: ANCOVA ESTIMATION OF HOUSEHOLD LABOUR INCOMES AND FARM INCOMES BY PERIOD

covariates	mean/std	(1)	(2)	(3)
(Intercept)		-8847.11 (11.5)	-7464.61 (17.8)	-64693.29 (0.0)
Large	0.278	193.34	-301.33	-4081.79
	(0.45)	(97.9)	(96.7)	(52.3)
LargeGrace	0.248	-1516.59	-5950.50	-5749.56
	(0.43)	(84.6)	(40.1)	(28.2)
Cattle	0.254	-2363.49	-3488.37	-3786.13
	(0.44)	(75.1)	(62.5)	(51.9)
rd 3	0.343	12826.35	12726.78	12533.21
	(0.47)	(0.0)	(0.0)	(0.0)
Large × rd 3	0.094	-5904.74	-5706.05	-3202.98
	(0.29)	(34.9)	(36.0)	(57.7)
LargeGrace × rd 3	0.085	1243.65	545.72	2510.64
	(0.28)	(85.2)	(93.3)	(66.8)
Cattle \times rd 3	0.086	-8767.76	-7999.96	-4708.92
	(0.28)	(27.3)	(30.0)	(50.0)
rd 4	0.326	23562.04	23314.19	23381.34
	(0.47)	(0.0)	(0.0)	(0.0)
Large × rd 4	0.095	10278.34	10389.16	12187.73
	(0.29)	(43.7)	(43.1)	(34.7)
LargeGrace × rd 4	0.082	313.08	-651.75	1415.67
	(0.27)	(96.8)	(93.1)	(83.7)
Cattle \times rd 4	0.081	-6744.19	-6607.35	-2208.07
	(0.27)	(50.2)	(50.9)	(81.3)
FloodInRd1	0.488 (0.50)			7086.54 (14.6)
Head literate0	0.113 (0.32)			-6837.51 (20.9)
household labour income ₁	2397.862 (172385.37)		0.10 (0.0)	0.06 (15.2)
HHsize0	4.405 (1.53)			12629.79 (0.0)
pcHHLabourIncome0	15499.124 (29821.83)			0.16 (52.9)
mean of dependent variable $T = 2$		2410 105	2410 105	2410 105
T = 3 $T = 4$		83 658	83 658	83 658
$ar{R}^2$	2557	0.013 2557	0.064 2557	0.119 2557

B. Farm incomes

		(1)	(2)	(2)
covariates	mean/std	(1)	(2)	(3)
(Intercept)		6127.53 (20.2)	12149.79 (1.2)	-22113.92 (46.9)
Large	0.468 (0.50)	-2993.33 (26.1)	-4893.71 (24.4)	-12983.69 (7.2)
LargeGrace	0.273 (0.45)	6981.60 (68.6)	3214.09 (81.2)	4910.96 (71.6)
rd 3	0.468 (0.50)	1256.59 (90.4)	-4099.95 (62.4)	2343.54 (85.3)
Large \times rd 3	0.234 (0.43)	4337.50 (52.0)	23571.16 (2.0)	43554.00 (4.9)
LargeGrace × rd 3	0.130 (0.34)	83932.50 (4.1)	91500.93 (1.1)	82676.16 (0.3)
rd 4	0.481 (0.50)	-2961.43 (50.9)	-11504.25 (1.1)	-4355.08 (36.9)
Large × rd 4	0.208 (0.41)	19012.16 (5.6)	31058.71 (0.1)	48196.78 (0.9)
LargeGrace × rd 4	0.130 (0.34)	52017.91 (0.0)	52383.76 (0.0)	42443.16 (0.0)
FloodInRd1	0.532 (0.50)			8486.41 (22.9)
Head literate0	0.156 (0.37)			-5041.53 (57.9)
farm revenue ₁	2668.874 (15293.24)		0.84 (1.7)	0.63 (4.9)
HHsize0	5.013 (1.41)			5557.56 (26.4)
mean of dependent variable $T = 2$		6338 30	6338 30	6338 30
T = 3 $T = 4$		22 1	22 1	22 1
$ar{R}^2 N$	77	0.029 77	0.097 77	0.093 77

Source: Estimated with GUK administrative and survey data.

Table 28: ANCOVA estimation of household labour incomes and farm incomes by attributes and period

covariates	mean/std	(1)	(2)	(3)
(Intercept)		-8847.11 (11.5)	-7464.61 (17.8)	-64693.29 (0.0)
Unfront	0.779	193.34	-301.33	-4081.79
	(0.41)	(97.9)	(96.7)	(52.3)
WithGrace	0.502	-1709.93	-5649.17	-1667.77
	(0.50)	(81.4)	(37.2)	(74.7)
InKind	0.254	-846.90	2462.13	1963.44
	(0.44)	(90.7)	(69.4)	(67.4)
rd 3	0.343	12826.35	12726.78	12533.21
	(0.47)	(0.0)	(0.0)	(0.0)
Unfront \times rd 3	0.266	-5904.74	-5706.05	-3202.98
	(0.44)	(34.9)	(36.0)	(57.7)
WithGrace \times rd 3	0.172	7148.39	6251.77	5713.63
	(0.38)	(17.7)	(22.1)	(23.6)
InKind × rd 3	0.086	-10011.41	-8545.69	-7219.56
	(0.28)	(16.6)	(21.3)	(24.6)
rd 4	0.326	23562.04	23314.19	23381.34
	(0.47)	(0.0)	(0.0)	(0.0)
Unfront × rd 4	0.258	10278.34	10389.16	12187.73
	(0.44)	(43.7)	(43.1)	(34.7)
WithGrace × rd 4	0.163	-9965.26	-11040.90	-10772.06
	(0.37)	(43.2)	(37.8)	(38.9)
InKind × rd 4	0.081	-7057.27	-5955.61	-3623.74
	(0.27)	(44.9)	(51.3)	(67.3)
FloodInRd1	0.488 (0.50)			7086.54 (14.6)
Head literate0	0.113 (0.32)			-6837.51 (20.9)
household labour income ₁	2397.862 (172385.37)		0.10 (0.0)	0.06 (15.2)
HHsize0	4.405 (1.53)			12629.79 (0.0)
pcHHLabourIncome0	15499.124 (29821.83)			0.16 (52.9)
mean of dependent variable $T = 2$		2410 105	2410 105	2410 105
$\begin{array}{c} T = 3 \\ T = 4 \end{array}$		83 658	83 658	83 658
$ar{R}^2$	2557	0.013 2557	0.064 2557	0.119 2557

B. Farm incomes

acronistas	maan/at-l	(1)	(2)	(2)
covariates	mean/std	(1)	(2)	(3)
(Intercept)		5780.95 (47.5)	-7373.91 (58.0)	-54279.46 (25.5)
Unfront	0.922	-2973.40	13333.59	14697.92
	(0.27)	(52.0)	(26.1)	(29.1)
WithGrace	0.455	9974.93	8002.21	17722.59
	(0.50)	(57.0)	(55.4)	(33.9)
InKind	0.182	-8911.22	-1330.02	-2374.63
	(0.39)	(61.0)	(91.9)	(85.0)
rd 3	0.468	1927.82	-1913.28	6486.76
	(0.50)	(85.7)	(82.5)	(65.4)
Unfront \times rd 3	0.442	-16156.25	-846.50	-2463.13
	(0.50)	(7.3)	(92.9)	(76.0)
WithGrace \times rd 3	0.208	79595.00	67270.05	37061.73
	(0.41)	(5.7)	(4.5)	(8.5)
InKind \times rd 3	0.078	-86720.00	-88730.06	-79543.94
	(0.27)	(3.7)	(1.2)	(0.3)
rd 4	0.481	-2672.64	-9400.17	-69.31
	(0.50)	(60.0)	(4.2)	(99.2)
WithGrace × rd 4	0.221	33005.75	20664.47	-8274.30
	(0.42)	(0.5)	(2.2)	(77.7)
InKind × rd 4	0.091	-55949.86	-50483.26	-37142.42
	(0.29)	(0.0)	(0.0)	(2.4)
FloodInRd1	0.532 (0.50)			7051.67 (30.1)
Head literate0	0.156 (0.37)			-4712.16 (61.5)
farm revenue ₁	2668.874 (15293.24)		0.89 (1.6)	0.71 (3.2)
HHsize0	5.013 (1.41)			6041.57 (26.3)
mean of dependent variable $T = 2$		6338 30	6338 30	6338 30
T = 3 $T = 4$		57 ²² ₁	22 1	22 1
$ar{R}^2 N$	77	0.003 77	0.071 77	0.067 77

III.4 Consumption

Consumption is observed in rd 2-4. There are 1380 observations.

```
[1] excl
[[1]]
PCExpenditure ~ dummyLarge + dummyLargeGrace + dummyCattle
PCExpenditure ~ dummyLarge + dummyLargeGrace + dummyCattle +
   PCExpenditure0
[[3]]
PCExpenditure ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + PCExpenditure0
TotalExpenditure ~ dummyLarge + dummyLargeGrace + dummyCattle
ΓΓ5]]
TotalExpenditure ~ dummyLarge + dummyLargeGrace + dummyCattle +
   TotalExpenditure0
[[6]]
TotalExpenditure ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + TotalExpenditure0
PCExpenditure ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    HHsize0 + HeadLiteracy0 + PCExpenditure0 + TotalExpenditure0
[1] excla
[[1]]
PCExpenditure ~ dummyLargeSize + dummyWithGrace + dummyInKind
PCExpenditure ~ dummyLargeSize + dummyWithGrace + dummyInKind +
    PCExpenditure0
[[3]]
PCExpenditure ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + PCExpenditure0
[[4]]
TotalExpenditure ~ dummyLargeSize + dummyWithGrace + dummyInKind
TotalExpenditure ~ dummyLargeSize + dummyWithGrace + dummyInKind +
    TotalExpenditure0
TotalExpenditure ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + TotalExpenditure0
[[7]]
PCExpenditure ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + PCExpenditure0 +
   TotalExpenditure0
[1] exclP
```

```
[[1]]
PCExpenditure ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
PCExpenditure ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + PCExpenditure0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
PCExpenditure ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    PCExpenditure0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[4]]
TotalExpenditure ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[5]]
TotalExpenditure ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + TotalExpenditure0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[6]]
TotalExpenditure ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    TotalExpenditure0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[7]]
PCExpenditure ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    PCExpenditure0 + TotalExpenditure0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[1] exclT
ΓΓ1]]
PCExpenditure ~ Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[2]]
PCExpenditure ~ Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
    PCExpenditure0
[[3]]
PCExpenditure ~ FloodInRd1 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + PCExpenditure0
TotalExpenditure ~ Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
TotalExpenditure ~ Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
    TotalExpenditure0
```

```
[[6]]
TotalExpenditure \sim FloodInRd1 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalExpenditure0
[[7]]
PCExpenditure ~ FloodInRd1 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + PCExpenditure0 +
    TotalExpenditure0
[1] exclTa
[[1]]
PCExpenditure ~ Time.4 + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4
ΓΓ2]]
PCExpenditure ~ Time.4 + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    PCExpenditure0
[[3]]
PCExpenditure ~ FloodInRd1 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PCExpenditure0
[[4]]
TotalExpenditure ~ Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
[[5]]
TotalExpenditure ~ Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + TotalExpenditure0
[[6]]
TotalExpenditure ~ FloodInRd1 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalExpenditure0
[[7]]
PCExpenditure ~ FloodInRd1 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PCExpenditure0 +
    TotalExpenditure0
```

TABLE 29: ANCOVA ESTIMATION OF CONSUMPTION

		Per capi	ta consumption	on (Tk)	Total	consumption	(Tk)
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		2753.7 (0.0)	2044.2 (0.0)	3266.6 (0.0)	10918.6 (0.0)	5371.0 (0.0)	3496.7 (0.0)
Large	0.273 (0.45)	44.5 (51.4)	67.6 (29.0)	102.4 (10.2)	679.3 (14.1)	546.9 (8.6)	361.6 (16.0)
LargeGrace	0.244 (0.43)	26.8 (68.1)	16.1 (77.8)	33.9 (59.7)	300.7 (56.9)	42.6 (88.9)	99.4 (68.6)
Cattle	0.261 (0.44)	36.8 (54.3)	54.7 (32.4)	42.4 (45.7)	103.9 (78.9)	346.8 (20.9)	195.7 (41.0)
FloodInRd1	0.489 (0.50)			-48.9 (21.0)			34.6 (83.8)
Head literate0	0.117 (0.32)			118.9 (1.7)			571.1 (2.7)
per capita consumption ₂	2212.703 (653.86)		0.3 (0.0)	0.1 (0.1)			
HHsize()	4.354 (1.47)			-188.1 (0.0)			1175.5 (0.0)
household consumption ₂	9208.982 (3172.47)					0.6 (0.0)	0.3 (0.0)
mean of dependent variable $T = 2$		2782 50	2782 50	2782 50	11205 50	11205 50	11205 50
T = 3		$\begin{array}{r} 665 \\ -0.002 \end{array}$	665 0.08	665 0.201	665 0.004	665 0.326	665 0.483
N	77	1380	1380	1380	1380	1380	1380

Source: Estimated with GUK administrative and survey data of round 2 - 4.

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Consumption is annualised values.

Table 30: ANCOVA estimation of consumption by attributes

		Per capi	ta consumpti	on (Tk)	Total consumption (Tk)		
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		2753.7 (0.0)	2044.2 (0.0)	3266.6 (0.0)	10918.6 (0.0)	5371.0 (0.0)	3496.7 (0.0)
Unfront	0.778 (0.42)	44.5 (51.4)	67.6 (29.0)	102.4 (10.2)	679.3 (14.1)	546.9 (8.6)	361.6 (16.0)
WithGrace	0.505 (0.50)	-17.7 (81.5)	-51.4 (44.7)	-68.6 (26.7)	-378.6 (48.4)	-504.2 (13.5)	-262.2 (36.5)
InKind	0.261 (0.44)	10.0 (88.4)	38.6 (51.8)	8.5 (87.9)	-196.8 (68.2)	304.2 (31.8)	96.4 (72.1)
FloodInRd1	0.489 (0.50)			-48.9 (21.0)			34.6 (83.8)
Head literate()	0.117 (0.32)			118.9 (1.7)			571.1 (2.7)
per capita consumption ₂	2212.703 (653.86)		0.3 (0.0)	0.1 (0.1)			
HHsize()	4.354 (1.47)			-188.1 (0.0)			1175.5 (0.0)
household consumption ₂	9208.982 (3172.47)					0.6 (0.0)	0.3 (0.0)
mean of dependent variable $T = 2$		2782 50	2782 50	2782 50	11205 50	11205 50	11205 50
T = 3		665 -0.002	665 0.08	665 0.201	665 0.004	665 0.326	665 0.483
N	77	1380	1380	1380	1380	1380	1380

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Consumption is annualised values.

Table 31: ANCOVA estimation of consumption, moderately poor vs. ultra poor

		Per capi	ta consumption	on (Tk)	Total consumption (Tk)		(Tk)
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		2757.4 (0.0)	2046.2 (0.0)	3281.5 (0.0)	11098.4 (0.0)	5512.0 (0.0)	3615.0 (0.0)
Unfront	0.778 (0.42)	50.0 (45.8)	64.3 (30.1)	102.0 (10.5)	631.4 (19.4)	450.9 (15.7)	314.7 (22.8)
WithGrace	0.505 (0.50)	-21.4 (77.3)	-57.0 (39.3)	-70.5 (25.3)	-310.1 (56.5)	-463.9 (16.6)	-229.7 (42.5)
InKind	0.261 (0.44)	18.1 (79.0)	48.3 (40.9)	16.6 (76.8)	-242.9 (61.2)	275.8 (37.5)	61.7 (82.3)
UltraPoor	0.633 (0.48)	-14.8 (72.0)	-2.6 (94.4)	-12.8 (69.5)	-211.2 (40.8)	-98.7 (60.9)	-86.4 (63.2)
Unfront × UltraPoor	0.030 (0.21)	51.4 (70.4)	-43.9 (72.9)	25.5 (81.8)	-292.9 (67.7)	-1001.9 (3.0)	-569.7 (27.1)
WithGrace × UltraPoor	0.032 (0.24)	35.9 (74.8)	81.4 (43.9)	-4.9 (96.0)	-890.8 (18.7)	-233.2 (67.0)	-290.0 (58.6)
InKind × UltraPoor	0.013 (0.21)	-119.4 (24.0)	-136.6 (12.8)	-129.5 (12.0)	429.3 (54.5)	295.6 (61.8)	474.6 (32.0)
FloodInRd1	0.489 (0.50)			-48.3 (22.8)			12.8 (94.0)
Head literate0	0.117 (0.32)			115.0 (2.1)			543.6 (2.9)
per capita consumption ₂	2212.703 (653.86)		0.3 (0.0)	0.1 (0.2)			
HHsize()	4.354 (1.47)			-189.0 (0.0)			1170.9 (0.0)
household consumption ₂	9208.982 (3172.47)					0.6 (0.0)	0.3 (0.0)
mean of dependent variable $T = 2$		2782 50	2782 50	2782 50	11205 50	11205 50	11205 50
T = 3		665 -0.004	665 0.078	665 0.2	665 0.005	665 0.329	665 0.484
N	77	1380	1380	1380	1380	1380	1380

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Consumption is annualised values.

TABLE 32: ANCOVA ESTIMATION OF CONSUMPTION BY PERIOD

		Per capi	ta consumption	on (Tk)	Total consumption (Tk)		
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		2704.3 (0.0)	1997.0 (0.0)	3219.3 (0.0)	10905.6 (0.0)	5373.6 (0.0)	3492.3 (0.0)
Large	0.273 (0.45)	34.7 (65.3)	58.8 (41.3)	94.3 (19.7)	670.7 (17.8)	533.6 (13.6)	342.7 (25.0)
LargeGrace	0.244 (0.43)	10.5 (89.4)	1.3 (98.5)	20.6 (79.4)	289.2 (61.6)	16.8 (96.2)	64.6 (83.0)
Cattle	0.261 (0.44)	46.3 (50.7)	67.8 (29.3)	57.6 (39.0)	212.2 (62.1)	443.3 (16.1)	267.7 (33.8)
rd 4	0.493 (0.50)	108.3 (0.9)	102.5 (1.5)	101.5 (1.7)	-23.0 (88.8)	-37.1 (82.1)	5.2 (97.4)
Large × rd 4	0.001 (0.24)	36.2 (74.3)	29.1 (78.7)	25.8 (81.0)	21.8 (96.1)	60.5 (89.3)	97.4 (82.8)
LargeGrace × rd 4	0.001 (0.23)	71.3 (59.4)	62.4 (63.6)	52.5 (69.1)	37.6 (93.9)	129.3 (79.2)	181.2 (71.0)
Cattle × rd 4	-0.002 (0.23)	-67.8 (52.4)	-90.1 (39.0)	-103.0 (33.2)	-665.6 (14.8)	-587.5 (20.0)	-435.6 (30.6)
FloodInRd1	0.489 (0.50)			-49.8 (20.2)			33.5 (84.4)
Head literate()	0.117 (0.32)			118.5 (1.7)			566.1 (2.8)
per capita consumption ₂	2212.703 (653.86)		0.3 (0.0)	0.1 (0.2)			
HHsize()	4.354 (1.47)			-188.2 (0.0)			1173.9 (0.0)
household consumption ₂	9208.982 (3172.47)					0.6 (0.0)	0.3 (0.0)
mean of dependent variable $T = 2$		2782 50	2782 50	2782 50	11205 50	11205 50	11205 50
T = 3		665 0.002	665 0.084	665 0.205	665 0.003	665 0.326	665 0.483
N	77	1380	1380	1380	1380	1380	1380

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Consumption is annualised values.

TABLE 33: ANCOVA ESTIMATION OF CONSUMPTION BY ATTRIBUTES AND PERIOD

		Per capi	ta consumption	on (Tk)	Total consumption (Tk)		(Tk)
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		2704.3 (0.0)	1997.0 (0.0)	3219.3 (0.0)	10905.6 (0.0)	5373.6 (0.0)	3492.3 (0.0)
Unfront	0.778 (0.42)	34.7 (65.3)	58.8 (41.3)	94.3 (19.7)	670.7 (17.8)	533.6 (13.6)	342.7 (25.0)
WithGrace	0.505 (0.50)	-24.2 (78.2)	-57.5 (47.0)	-73.7 (33.9)	-381.6 (51.8)	-516.8 (17.8)	-278.1 (41.0)
InKind	0.261 (0.44)	35.8 (65.8)	66.5 (36.1)	37.0 (60.4)	-77.0 (88.5)	426.5 (22.7)	203.1 (52.6)
rd 4	0.493 (0.50)	108.3 (0.9)	102.5 (1.5)	101.5 (1.7)	-23.0 (88.8)	-37.1 (82.1)	5.2 (97.4)
Unfront × rd 4	0.001 (0.22)	36.2 (74.3)	29.1 (78.7)	25.8 (81.0)	21.8 (96.1)	60.5 (89.3)	97.4 (82.8)
WithGrace \times rd 4	-0.001 (0.26)	35.1 (78.5)	33.3 (79.6)	26.7 (83.6)	15.8 (97.3)	68.7 (88.3)	83.8 (85.7)
InKind × rd 4	-0.002 (0.23)	-139.0 (26.7)	-152.5 (23.0)	-155.5 (22.5)	-703.1 (14.3)	-716.8 (13.2)	-616.8 (16.6)
FloodInRd1	0.489 (0.50)			-49.8 (20.2)			33.5 (84.4)
Head literate0	0.117 (0.32)			118.5 (1.7)			566.1 (2.8)
per capita consumption ₂	2212.703 (653.86)		0.3 (0.0)	0.1 (0.2)			
HHsize()	4.354 (1.47)			-188.2 (0.0)			1173.9 (0.0)
household consumption ₂	9208.982 (3172.47)					0.6 (0.0)	0.3 (0.0)
mean of dependent variable $T = 2$		2782 50	2782 50	2782 50	11205 50	11205 50	11205 50
T = 3		665 0.002	665 0.084	665 0.205	665 0.003	665 0.326	665 0.483
N	77	1380	1380	1380	1380	1380	1380

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Consumption is annualised values.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

III.5 Assets

III.5.1 Homestead land

Nonzero reported residential land holding among 800 (776) HHs. Around 40-50% of respondents report nonzero residential land holding.

	Arm	survey	NonZero
1:	traditional	1	0.470588
2:	traditional	2	0.517647
3:	traditional	3	0.552941
4:	traditional	4	0.552941
5:	large	1	0.467836
6:	large	2	0.491228
7:	large	3	0.514620
8:	large	4	0.508772
9:	large grace	1	0.479042
10:	large grace	2	0.508982
11:	large grace	3	0.526946
12:	large grace	4	0.520958
13:	cattle	1	0.379085
14:	cattle	2	0.450980
15:	cattle	3	0.470588

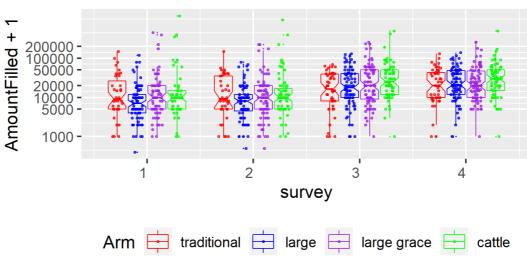
16: cattle 4 0.470588

HHs reporting zero residential land holding are, except for the traditional arm, substantially poorer than HHs who report nonzero residential land holding.

	Arm	ZeroLandHolding	MeanNetValue
1:	traditional	FALSE	11259.46
2:	traditional	TRUE	10612.93
3:	large	FALSE	22738.46
4:	large	TRUE	17915.93
5:	large grace	FALSE	15707.96
6:	large grace	TRUE	9539.76
7:	cattle	FALSE	15232.56
8:	cattle	TRUE	9659.07

Abu-san's email on Jan 30, 2020 I checked the questionnaire and found that from round 2, land-holding information has been included in the asset information, which made the asset data inflated from round 2. Since landholding is something that is time-invariant for the ultrapoor households, either we can add the landholding information in round 1 or create an asset holding information deleting the landholding information from round 2 onwards, to make the valid comparison. ⇒ This is done and saved as AmountFilled.

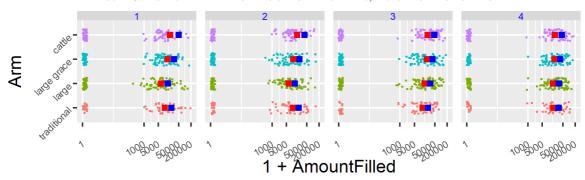
FIGURE 7: HOMESTEAD LAND HOLDING OF LOAN RECIPIENTS



Source: Survey data.

Note: Loan recipients only.

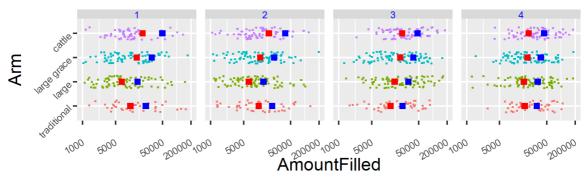
FIGURE 8: HOMESTEAD LAND HOLDING OF LOAN RECIPIENTS, INCLUDING ZERO HOLDING



Source: Survey data.

Note: Log of 1+land holding is displayed on horizontal axises. Red squares are means including zero holding for respective Arm-round. Blue squares are means excluding zero holding for respective Arm-round. Loan recipients only.

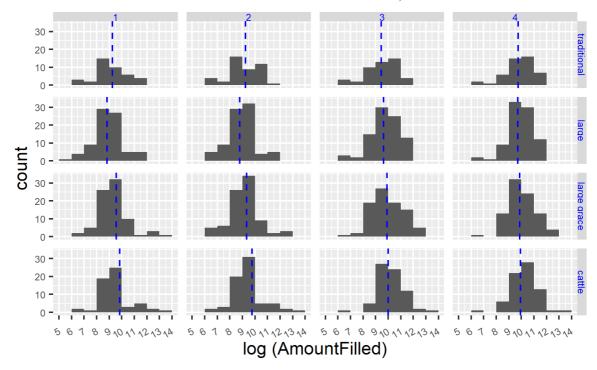
FIGURE 9: HOMESTEAD LAND HOLDING OF LOAN RECIPIENTS, EXCLUDING ZERO HOLDING



Source: Survey data.

Note: Log of land holding is displayed on horizontal axises. Zero land holders are excluded. Red squares are means including zero holding for respective Arm-round. Blue squares are means excluding zero holding for respective Arm-round. Loan recipients only.

FIGURE 10: HOMESTEAD LAND HOLDING OF LOAN RECIPIENTS, EXCLDUING ZERO



Source: Survey data.

Note: Loan recipients only. Logarithm of land holding is displayed on horizontal axises. Zero land holding is excluded from the graph. Mean including zero holding is shown as a dotted line in each panel.

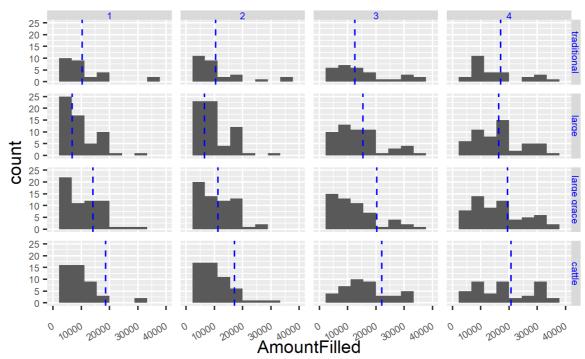


FIGURE 11: HOMESTEAD LAND HOLDING OF LOAN RECIPIENTS, EXCLDUING ZERO, REAL VALUES

Source: Survey data.

Note: Loan recipients only. Land holding is displayed on horizontal axises. Zero land holding is excluded from the graph. Mean including zero holding is shown as a dotted line in each panel.

Land holding distributions look different between arms at the baseline (Figure 10). This can be a consequence of copying the round 2 values which was justified under the assumption that all the round 1 land acquisition is reported in round 2 when our interviewer asks about it. By round 4, distributions become more skewed to left in all arms, indicating that some members have increased their land holding, only that such a tendency is weakest among the traditional arm.

	tee	traditional	large	large	grace	cattle	Sum
1:	1	174	199		198	199	770
2:	2	166	193		176	194	729
3:	3	162	190		173	187	712
4:	4	133	179		155	151	618

Land entries by arm and round:

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	Arm	NA . 1	NA.2	NA.3	NA.4	NonNA.1	NonNA.2	NonNA.3	NonNA.4
1	large	85	84	84	85	139	142	140	141
2	cattle	108	107	107	96	84	96	98	95
3	large grace	98	78	82	81	103	104	103	101
4	traditional	85	82	81	71	83	91	89	81
5	Total	376	351	354	333	409	433	430	418

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[1] excl
[[1]]
AmountFilled ~ dummyLarge + dummyLargeGrace + dummyCattle

[[2]]
AmountFilled ~ dummyLarge + dummyLargeGrace + dummyCattle + AmountFilled0

[[3]]
AmountFilled ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle + HHsize0 + HeadLiteracy0 + AmountFilled0
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[[4]]
AmountFilled \sim FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyHadCows + HHsize0 + HeadLiteracy0 + AmountFilled0
[[5]]
AmountFilled ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + AmountFilled0
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    dummyHadCows + HHsize0 + HeadLiteracy0 + AmountFilled0
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    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
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AmountFilled ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + AmountFilled0
[[3]]
AmountFilled ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + HHsize0 +
    HeadLiteracy0 + AmountFilled0
[[4]]
AmountFilled ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyHadCows + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + HHsize0 +
   HeadLiteracy0 + AmountFilled0
AmountFilled ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + HHsize0 +
   HeadLiteracy0 + AmountFilled0
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    dummyInKind + HHsize0 + HeadLiteracy0 + AmountFilled0
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AmountFilled ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + AmountFilled0
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AmountFilled ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + AmountFilled0
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    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + AmountFilled0
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   dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
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   dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
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AmountFilled ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
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AmountFilled ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
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   dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
   dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
   dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
   dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4 +
   AmountFilled0
AmountFilled ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
   dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
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   dummyInKind.Time4 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
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    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
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dummyInKind.UltraPoor.Time4 + HHsize0 + HeadLiteracy0 + AmountFilled0

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[[4]]
AmountFilled ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
   dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
   dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
   dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4 + HHsize0 + HeadLiteracy0 + AmountFilled0
AmountFilled ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
   dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
   dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
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   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4 + HHsize0 + HeadLiteracy0 + AmountFilled0
[[6]]
AmountFilled ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
   dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
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dummyInKind.UltraPoor.Time4 + HHsize0 + HeadLiteracy0 + AmountFilled0

TABLE 34: ANCOVA ESTIMATION OF LAND HOLDING

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		22723.0 (0.0)	12665.5 (0.0)	10601.3 (4.0)	10505.4 (4.3)	10601.3 (4.0)	10505.4 (4.3)
Large	0.334 (0.47)	14224.2 (7.4)	12176.8 (1.2)	12059.7 (1.0)	11745.9 (1.6)	12059.7 (1.0)	11745.9 (1.6)
LargeGrace	0.244 (0.43)	19537.6 (1.5)	9023.0 (2.1)	9379.7 (2.9)	9209.4 (3.1)	9379.7 (2.9)	9209.4 (3.1)
Cattle	0.220 (0.41)	32534.3 (14.7)	6080.2 (7.7)	6095.8 (8.3)	6161.8 (8.1)	6095.8 (8.3)	6161.8 (8.1)
HadCattle	0.231 (0.42)				2724.7 (43.7)		2724.7 (43.7)
FloodInRd1	0.433 (0.50)			640.4 (85.5)	575.8 (87.2)	640.4 (85.5)	575.8 (87.2)
Head literate0	0.119 (0.32)			-981.9 (75.9)	-1306.3 (67.3)	-981.9 (75.9)	-1306.3 (67.3)
land value ₁	35511.779 (115082.24)		0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)
HHsize0	4.477 (1.38)			412.3 (70.5)	334.2 (74.7)	412.3 (70.5)	334.2 (74.7)
mean of denendent variable $ar{R}^2$		39394 0.02	39394 0.737	39394 0.737	39394 0.737	39394 0.737	39394 0.737
N	1248	1248	1248	1248	1248	1248	1248

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 35: ANCOVA ESTIMATION OF LAND HOLDING BY ATTRIBUTES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		22723.0 (0.0)	12665.5 (0.0)	10601.3 (4.0)	10505.4 (4.3)	10601.3 (4.0)	10505.4 (4.3)
Unfront	0.798 (0.40)	14224.2 (7.4)	12176.8 (1.2)	12059.7 (1.0)	11745.9 (1.6)	12059.7 (1.0)	11745.9 (1.6)
WithGrace	0.464 (0.50)	5313.4 (61.8)	-3153.8 (59.0)	-2680.0 (66.3)	-2536.4 (68.4)	-2680.0 (66.3)	-2536.4 (68.4)
InKind	0.220 (0.41)	12996.6 (58.0)	-2942.8 (53.7)	-3284.0 (52.8)	-3047.6 (55.7)	-3284.0 (52.8)	-3047.6 (55.7)
HadCattle	0.231 (0.42)				2724.7 (43.7)		2724.7 (43.7)
FloodInRd1	0.433 (0.50)			640.4 (85.5)	575.8 (87.2)	640.4 (85.5)	575.8 (87.2)
Head literate0	0.119 (0.32)			-981.9 (75.9)	-1306.3 (67.3)	-981.9 (75.9)	-1306.3 (67.3)
land value ₁	35511.779 (115082.24)		0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)
HHsize0	4.477 (1.38)			412.3 (70.5)	334.2 (74.7)	412.3 (70.5)	334.2 (74.7)
mean of dependent variable \bar{R}^2		39394 0.02	39394 0.737	39394 0.737	39394 0.737	39394 0.737	39394 0.737
N	1248	1248	1248	1248	1248	1248	1248

Source: Estimated with GUK administrative and survey data.

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

TABLE 36: ANCOVA ESTIMATION OF LAND HOLDING BY PERIOD, ARM

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		14369.0 (0.0)	3737.6 (20.6)	1721.7 (75.1)	1721.7 (75.1)	1721.7 (75.1)	1721.7 (75.1)
Large	0.334	10968.4	8770.6	8634.3	8634.3	8634.3	8634.3
	(0.47)	(11.3)	(1.4)	(1.1)	(1.1)	(1.1)	(1.1)
LargeGrace	0.244	17714.5	7106.7	7481.3	7481.3	7481.3	7481.3
	(0.43)	(2.6)	(2.3)	(3.2)	(3.2)	(3.2)	(3.2)
Cattle	0.220	35735.1	8274.5	8287.5	8287.5	8287.5	8287.5
	(0.41)	(18.5)	(4.4)	(4.7)	(4.7)	(4.7)	(4.7)
rd 3	0.344	11996.0	13466.6	13469.9	13469.9	13469.9	13469.9
	(0.48)	(3.9)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Large × rd 3	0.111	17399.6	17900.1	17854.7	17854.7	17854.7	17854.7
	(0.31)	(0.6)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
LargeGrace × rd 3	0.083	15554.1	15916.7	15891.4	15891.4	15891.4	15891.4
	(0.28)	(1.9)	(1.2)	(1.2)	(1.2)	(1.2)	(1.2)
Cattle \times rd 3	0.079	-12338.2	-7450.9	-7498.5	-7498.5	-7498.5	-7498.5
	(0.27)	(56.9)	(67.1)	(67.0)	(67.0)	(67.0)	(67.0)
rd 4	0.335	14818.0	15884.7	15893.4	15893.4	15893.4	15893.4
	(0.47)	(2.4)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)
Large × rd 4	0.113	18142.6	19403.8	19408.4	19408.4	19408.4	19408.4
	(0.32)	(6.8)	(5.0)	(5.2)	(5.2)	(5.2)	(5.2)
LargeGrace × rd 4	0.081	5183.2	5937.8	5962.3	5962.3	5962.3	5962.3
	(0.27)	(40.0)	(33.5)	(33.7)	(33.7)	(33.7)	(33.7)
Cattle × rd 4	0.076	-21791.7	-16958.2	-16947.3	-16947.3	-16947.3	-16947.3
	(0.27)	(34.1)	(38.2)	(38.3)	(38.3)	(38.3)	(38.3)
FloodInRd1	0.433 (0.50)			787.9 (82.5)	787.9 (82.5)	787.9 (82.5)	787.9 (82.5)
Head literate()	0.119 (0.32)			-976.4 (76.1)	-976.4 (76.1)	-976.4 (76.1)	-976.4 (76.1)
land value ₁	35511.779 (115082.24)		0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)
HHsize0	4.477 (1.38)			387.3 (72.2)	387.3 (72.2)	387.3 (72.2)	387.3 (72.2)
mean of dependent variable \bar{R}^2		39394 0.031	39394 0.753	39394 0.753	39394 0.753	39394 0.753	39394 0.753
N	1248	1248	1248	1248	1248	1248	1248

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

TABLE 37: ANCOVA ESTIMATION OF LAND HOLDING BY PERIOD, ARM, AND POVERTY STATUS

agyamiataa	maan/atd	(1)	(2)	(2)	(4)	(5)	(6)
covariates (Intercept)	mean/std	(1) 27062.0	(2) 7935.6	(3) 5594.5	(4) 5594.5	(5) 5594.5	(6) 5594.5
	0.4-:	(8.4)	(14.0)	(44.0)	(44.0)	(44.0)	(44.0)
Large	0.334	8550.1	7976.8	8046.8	8046.8	8046.8	8046.8
	(0.47)	(9.7)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LargeGrace	0.244	15147.1	7016.5	7102.7	7102.7	7102.7	7102.7
	(0.43)	(5.3)	(1.8)	(3.3)	(3.3)	(3.3)	(3.3)
Cattle	0.220	43952.3	10129.6	10168.9	10168.9	10168.9	10168.9
	(0.41)	(21.6)	(5.7)	(5.6)	(5.6)	(5.6)	(5.6)
UltraPoor	0.594 (0.49)	-18201.7 (35.5)	-5493.0 (13.0)	-5521.6 (13.0)	-5521.6 (13.0)	-5521.6 (13.0)	-5521.6 (13.0)
Large × UltraPoor	0.171 (0.38)	-25078.4 (2.6)	-9512.8 (9.0)	-10173.8 (9.2)	-10173.8 (9.2)	-10173.8 (9.2)	-10173.8 (9.2)
LargeGrace × UltraPoor	0.166	24662.6	8357.6	8420.6	8420.6	8420.6	8420.6
	(0.37)	(2.3)	(12.7)	(13.6)	(13.6)	(13.6)	(13.6)
Cattle × UltraPoor	0.158	-84476.4	-10715.2	-10805.0	-10805.0	-10805.0	-10805.0
	(0.36)	(26.6)	(41.9)	(41.4)	(41.4)	(41.4)	(41.4)
rd 3	0.344	9619.4	11241.8	11258.4	11258.4	11258.4	11258.4
	(0.48)	(19.1)	(7.0)	(7.0)	(7.0)	(7.0)	(7.0)
Large × rd 3	0.111	16613.1	16820.2	16781.0	16781.0	16781.0	16781.0
	(0.31)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
LargeGrace × rd 3	0.083	16888.7	16820.7	16820.2	16820.2	16820.2	16820.2
	(0.28)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)
Cattle × rd 3	0.079	-16605.9	-11414.0	-11319.1	-11319.1	-11319.1	-11319.1
	(0.27)	(55.7)	(62.9)	(63.3)	(63.3)	(63.3)	(63.3)
UltraPoor × rd 3	0.203	6027.0	4361.8	4402.6	4402.6	4402.6	4402.6
	(0.40)	(71.0)	(75.3)	(75.2)	(75.2)	(75.2)	(75.2)
Large × UltraPoor × rd 3	0.057	-10406.0	-14527.1	-14620.7	-14620.7	-14620.7	-14620.7
	(0.23)	(22.8)	(8.7)	(8.5)	(8.5)	(8.5)	(8.5)
LargeGrace × UltraPoor × rd 3	0.056	13941.3	11246.7	11184.2	11184.2	11184.2	11184.2
	(0.23)	(31.8)	(40.3)	(40.8)	(40.8)	(40.8)	(40.8)
Cattle \times UltraPoor \times rd 3	0.057	68459.6	54104.1	53992.8	53992.8	53992.8	53992.8
	(0.23)	(27.2)	(31.0)	(31.2)	(31.2)	(31.2)	(31.2)
rd 4	0.335	12572.2	13862.0	13889.8	13889.8	13889.8	13889.8
	(0.47)	(10.9)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)
Large × rd 4	0.113	16954.0	18021.3	17963.1	17963.1	17963.1	17963.1
	(0.32)	(2.6)	(1.7)	(1.8)	(1.8)	(1.8)	(1.8)
LargeGrace × rd 4	0.081	6394.5	6785.5	6766.0	6766.0	6766.0	6766.0
	(0.27)	(25.5)	(23.5)	(24.0)	(24.0)	(24.0)	(24.0)
Cattle × rd 4	0.076	-27731.5	-21854.7	-21786.8	-21786.8	-21786.8	-21786.8
	(0.27)	(34.8)	(38.1)	(38.3)	(38.3)	(38.3)	(38.3)
UltraPoor × rd 4	$0.200 \\ (0.40)$	7302.6 (65.1)	4674.6 (73.8)	4688.1 (73.8)	4688.1 (73.8)	4688.1 (73.8)	4688.1 (73.8)
Large × UltraPoor × rd 4	0.058	-15200.4	-15959.0	-15870.7	-15870.7	-15870.7	-15870.7
	(0.23)	(39.4)	(36.5)	(37.1)	(37.1)	(37.1)	(37.1)
LargeGrace \times UltraPoor \times rd 4	0.054 (0.23)	2420.4 (87.9)	2429.0 (87.5)	2548.5 (86.9)	2548.5 (86.9)	2548.5 (86.9)	2548.5 (86.9)
Cattle \times UltraPoor \times rd 4	0.054	67572.4	56291.1	56348.6	56348.6	56348.6	56348.6
	(0.23)	(25.2)	(25.9)	(26.0)	(26.0)	(26.0)	(26.0)
FloodInRd1	0.433 (0.50)			-1098.9 (74.1)	-1098.9 (74.1)	-1098.9 (74.1)	-1098.9 (74.1)
Head literate0	0.119 (0.32)			-1413.8 (64.6)	-1413.8 (64.6)	-1413.8 (64.6)	-1413.8 (64.6)
land value ₁	35511.779 (115082.24)		0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)
HHsize0	4.477 (1.38)			643.2 (51.3)	643.2 (51.3)	643.2 (51.3)	643.2 (51.3)
mean of dependent variable \bar{R}^2		39394 0.088	39394 0.762	39394 0.761	39394 0.761	39394 0.761	39394 0.761
N	1248	1248	1248	1248	1248	1248	1248

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

TABLE 38: ANCOVA ESTIMATION OF LAND HOLDING BY PERIOD AND ATTRIBUTES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		14369.0 (0.0)	3737.6 (20.6)	1721.7 (75.1)	1721.7 (75.1)	1721.7 (75.1)	1721.7 (75.1)
Unfront	0.798	10968.4	8770.6	8634.3	8634.3	8634.3	8634.3
	(0.40)	(11.3)	(1.4)	(1.1)	(1.1)	(1.1)	(1.1)
WithGrace	0.464	6746.2	-1663.9	-1153.0	-1153.0	-1153.0	-1153.0
	(0.50)	(49.2)	(71.3)	(81.2)	(81.2)	(81.2)	(81.2)
InKind	0.220	18020.5	1167.8	806.2	806.2	806.2	806.2
	(0.41)	(51.7)	(80.6)	(87.2)	(87.2)	(87.2)	(87.2)
rd 3	0.344	11996.0	13466.6	13469.9	13469.9	13469.9	13469.9
	(0.48)	(3.9)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Unfront \times rd 3	0.272	17399.6	17900.1	17854.7	17854.7	17854.7	17854.7
	(0.45)	(0.6)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
WithGrace \times rd 3	0.161	-1845.5	-1983.4	-1963.2	-1963.2	-1963.2	-1963.2
	(0.37)	(79.7)	(78.1)	(78.4)	(78.4)	(78.4)	(78.4)
InKind × rd 3	0.079	-27892.3	-23367.6	-23390.0	-23390.0	-23390.0	-23390.0
	(0.27)	(20.3)	(19.2)	(19.4)	(19.4)	(19.4)	(19.4)
rd 4	0.335	14818.0	15884.7	15893.4	15893.4	15893.4	15893.4
	(0.47)	(2.4)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)
Unfront × rd 4	0.270	18142.6	19403.8	19408.4	19408.4	19408.4	19408.4
	(0.44)	(6.8)	(5.0)	(5.2)	(5.2)	(5.2)	(5.2)
WithGrace × rd 4	0.157	-12959.4	-13466.0	-13446.1	-13446.1	-13446.1	-13446.1
	(0.36)	(23.0)	(21.3)	(21.5)	(21.5)	(21.5)	(21.5)
InKind × rd 4	0.076	-26974.9	-22895.9	-22909.6	-22909.6	-22909.6	-22909.6
	(0.27)	(24.7)	(24.9)	(25.0)	(25.0)	(25.0)	(25.0)
FloodInRd1	0.433 (0.50)			787.9 (82.5)	787.9 (82.5)	787.9 (82.5)	787.9 (82.5)
Head literate()	0.119 (0.32)			-976.4 (76.1)	-976.4 (76.1)	-976.4 (76.1)	-976.4 (76.1)
land value ₁	35511.779 (115082.24)		0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)
HHsize()	4.477 (1.38)			387.3 (72.2)	387.3 (72.2)	387.3 (72.2)	387.3 (72.2)
mean of dependent variable \tilde{R}^2		39394 0.031	39394 0.753	39394 0.753	39394 0.753	39394 0.753	39394 0.753
N	1248	1248	1248	1248	1248	1248	1248

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

TABLE 39: ANCOVA ESTIMATION OF LAND HOLDING BY PERIOD, ATTRIBUTES, AND POVERTY STATUS

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		27062.0 (8.4)	7935.6 (14.0)	5594.5 (44.0)	5594.5 (44.0)	5594.5 (44.0)	5594.5 (44.0)
Unfront	0.798	8550.1	7976.8	8046.8	8046.8	8046.8	8046.8
	(0.40)	(9.7)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
WithGrace	0.464	6597.0	-960.4	-944.1	-944.1	-944.1	-944.1
	(0.50)	(43.0)	(79.3)	(82.1)	(82.1)	(82.1)	(82.1)
InKind	0.220	28805.2	3113.1	3066.2	3066.2	3066.2	3066.2
	(0.41)	(42.5)	(58.7)	(59.9)	(59.9)	(59.9)	(59.9)
UltraPoor	0.594	-18201.7	-5493.0	-5521.6	-5521.6	-5521.6	-5521.6
	(0.49)	(35.5)	(13.0)	(13.0)	(13.0)	(13.0)	(13.0)
Unfront × UltraPoor	0.495	-25078.4	-9512.8	-10173.8	-10173.8	-10173.8	-10173.8
	(0.50)	(2.6)	(9.0)	(9.2)	(9.2)	(9.2)	(9.2)
WithGrace × UltraPoor	0.324	49741.0	17870.4	18594.5	18594.5	18594.5	18594.5
	(0.47)	(0.0)	(0.9)	(0.3)	(0.3)	(0.3)	(0.3)
InKind × UltraPoor	0.158	-109139.0	-19072.9	-19225.7	-19225.7	-19225.7	-19225.7
	(0.36)	(15.3)	(18.5)	(18.5)	(18.5)	(18.5)	(18.5)
rd 3	0.344	9619.4	11241.8	11258.4	11258.4	11258.4	11258.4
	(0.48)	(19.1)	(7.0)	(7.0)	(7.0)	(7.0)	(7.0)
UltraPoor × rd 3	0.203	6027.0	4361.8	4402.6	4402.6	4402.6	4402.6
	(0.40)	(71.0)	(75.3)	(75.2)	(75.2)	(75.2)	(75.2)
Upfront \times rd 3	0.272	16613.1	16820.2	16781.0	16781.0	16781.0	16781.0
	(0.45)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
WithGrace × rd 3	0.161	275.6	0.5	39.1	39.1	39.1	39.1
	(0.37)	(96.4)	(100.0)	(99.5)	(99.5)	(99.5)	(99.5)
InKind \times rd 3	0.079 (0.27)	-33494.7 (23.9)	-28234.7 (23.6)	-28139.3 (23.9)	-28139.3 (23.9)	-28139.3 (23.9)	-28139.3 (23.9)
Unfront × UltraPoor × rd 3	0.170 (0.38)	-10406.0 (22.8)	-14527.1 (8.7)	-14620.7 (8.5)	-14620.7 (8.5)	-14620.7 (8.5)	-14620.7 (8.5)
WithGrace \times UltraPoor \times rd 3	0.113	24347.3	25773.9	25804.9	25804.9	25804.9	25804.9
	(0.32)	(7.2)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)
$InKind \times UltraPoor \times rd \ 3$	0.057	54518.3	42857.4	42808.6	42808.6	42808.6	42808.6
	(0.23)	(38.8)	(42.8)	(43.0)	(43.0)	(43.0)	(43.0)
rd 4	0.335	12572.2	13862.0	13889.8	13889.8	13889.8	13889.8
	(0.47)	(10.9)	(4.0)	(3.9)	(3.9)	(3.9)	(3.9)
UltraPoor × rd 4	0.200	7302.6	4674.6	4688.1	4688.1	4688.1	4688.1
	(0.40)	(65.1)	(73.8)	(73.8)	(73.8)	(73.8)	(73.8)
Upfront \times rd 4	0.270	16954.0	18021.3	17963.1	17963.1	17963.1	17963.1
	(0.44)	(2.6)	(1.7)	(1.8)	(1.8)	(1.8)	(1.8)
WithGrace × rd 4	0.157	-10559.5	-11235.9	-11197.0	-11197.0	-11197.0	-11197.0
	(0.36)	(19.9)	(17.1)	(17.5)	(17.5)	(17.5)	(17.5)
InKind × rd 4	0.076	-34126.0	-28640.2	-28552.9	-28552.9	-28552.9	-28552.9
	(0.27)	(25.0)	(25.5)	(25.8)	(25.8)	(25.8)	(25.8)
Upfront × UltraPoor × rd 4	0.167	-15200.4	-15959.0	-15870.7	-15870.7	-15870.7	-15870.7
	(0.37)	(39.4)	(36.5)	(37.1)	(37.1)	(37.1)	(37.1)
WithGrace \times UltraPoor \times rd 4	0.109	17620.8	18388.0	18419.2	18419.2	18419.2	18419.2
	(0.31)	(42.5)	(39.5)	(39.5)	(39.5)	(39.5)	(39.5)
InKind × UltraPoor × rd 4	0.054	65152.0	53862.2	53800.1	53800.1	53800.1	53800.1
	(0.23)	(28.0)	(29.5)	(29.6)	(29.6)	(29.6)	(29.6)
FloodInRd1	0.433 (0.50)			-1098.9 (74.1)	-1098.9 (74.1)	-1098.9 (74.1)	-1098.9 (74.1)
Head literate()	0.119 (0.32)			-1413.8 (64.6)	-1413.8 (64.6)	-1413.8 (64.6)	-1413.8 (64.6)
land value ₁	35511.779 (115082.24)		0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)
HHsize0	4 477 (1.38)			643.2 (51.3)	643.2 (51.3)	643.2 (51.3)	643.2 (51.3)
mean of dependent variable R^2		39394 0.088	39394 0.762	39394 0.761	39394 0.761	39394 0.761	39394 0.761
N	1248	1248	1248	1248	1248	1248	1248

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Interaction terms of dummy variables are demeaned before interacting. The first column gives mean and standard deviation (in parenthesises) of each covariates before demeaning.

TABLE 36 shows that, compared to traditional arm, land holding is larger for large, large grace, and cattle arms in round 2. The difference with traditional arm is maintained only for large arm

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

throughout the rounds, and become negligible for large grace and cattle arms.

III.5.2 Livestock

```
AttritIn
Arm
            2 3
                   4
                       9 Sum
            7
               4 20 144 175
 traditional
               2 1 191 199
            5
 large
 large grace 12 3 3 170 188
            5 5 13 176 199
 cattle
 Sum
           29 14 37 681 761
   NumCows
     0
          1
              2
                   3
                            5
                                 6
                                     7
                                         8
                                             9 <NA>
tee
      15
         308 153
                   40
                       11
                            1
                                 2
                                     0
                                         1
                                             1 196
                                                    728
 2
      5 337
             175
 3
                   40
                       15
                            1
                                 2
                                     2
                                         1
                                             0
                                               110
                                                    688
 4
       4 218 201
                  54
                      11
                            4
                                2
                                    0
                                        1
                                             1
                                               86 582
 Sum 24 863 529 134 37
                            6 6 2 3
                                             2 392 1998
```

[1] 5

```
[1] excl
\Gamma\Gamma177
TotalImputedValue ~ dummyLarge + dummyLargeGrace + dummyCattle
[[2]]
TotalImputedValue ~ dummyLarge + dummyLargeGrace + dummyCattle +
    TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[[4]]
TotalImputedValue ~ FloodInRd1 + dummyHadCows + dummyLarge +
    dummyLargeGrace + dummyCattle + HHsize0 + HeadLiteracy0 +
    TotalImputedValue0 + dummyHadCows.Large + dummyHadCows.LargeGrace +
    dummyHadCows.Cattle
[[5]]
TotalImputedValue ~ FloodInRd1 + dummyHadCows + dummyLarge +
    dummyLargeGrace + dummyCattle + HHsize0 + HeadLiteracy0 +
    TotalImputedValue0 + dummyHadCows.Large + dummyHadCows.LargeGrace +
    dummyHadCows.Cattle
[1] exclP
[[1]]
TotalImputedValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
TotalImputedValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + TotalImputedValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
TotalImputedValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
```

```
[[4]]
TotalImputedValue \sim FloodInRd1 + dummyHadCows + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + HHsize0 +
   HeadLiteracy0 + TotalImputedValue0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyHadCows.LargeSize +
   dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
TotalImputedValue ~ FloodInRd1 + dummyHadCows + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + HHsize0 +
   HeadLiteracy0 + TotalImputedValue0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyHadCows.LargeSize +
    dummyHadCows.WithGrace + dummyHadCows.InKind
[1] excla
[[1]]
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind +
   TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0
TotalImputedValue ~ FloodInRd1 + dummyHadCows + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalImputedValue0 + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
   dummyHadCows.InKind
[[5]]
TotalImputedValue ~ FloodInRd1 + dummyHadCows + dummyLargeSize +
   dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalImputedValue0 + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
   dummyHadCows.InKind
[1] exclT
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[[4]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyHadCows +
   dummyLarge + dummyLargeGrace + dummyCattle + dummyLarge.Time3 +
```

```
dummyLargeGrace.Time3 + dummyCattle.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + HHsize0 + HeadLiteracy0 +
   TotalImputedValue0 + dummyHadCows.Large + dummyHadCows.Time3 +
   dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
   dummyHadCows.Cattle.Time4
[[5]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyHadCows +
   dummyLarge + dummyLargeGrace + dummyCattle + dummyLarge.Time3 +
   dummyLargeGrace.Time3 + dummyCattle.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + HHsize0 + HeadLiteracy0 +
    TotalImputedValue0 + dummyHadCows.Large + dummyHadCows.Time3 +
   dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
   dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
   dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 +
   dummvHadCows.Cattle.Time4
[1] exclTa
[[1]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4
[[2]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + TotalImputedValue0
[[3]]
TotalImputedValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyHadCows +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyLargeSize.Time4 +
   dummyWithGrace.Time4 + dummyInKind.Time4 + HHsize0 + HeadLiteracy0 +
   TotalImputedValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
   dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
   dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyHadCows +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyLargeSize.Time4 +
   dummyWithGrace.Time4 + dummyInKind.Time4 + HHsize0 + HeadLiteracy0 +
   TotalImputedValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
   dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
   dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```

[[1]]

```
[[2]]
TotalImputed2Value ~ dummyLarge + dummyLargeGrace + dummyCattle +
    TotalImputed2Value0
TotalImputed2Value ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputed2Value0
[[4]]
TotalImputed2Value ~ FloodInRd1 + dummyHadCows + dummyLarge +
    dummyLargeGrace + dummyCattle + HHsize0 + HeadLiteracy0 +
    TotalImputed2Value0 + dummyHadCows.Large + dummyHadCows.LargeGrace +
    dummyHadCows.Cattle
[[5]]
TotalImputed2Value ~ FloodInRd1 + dummyHadCows + dummyLarge +
    dummyLargeGrace + dummyCattle + HHsize0 + HeadLiteracy0 +
    TotalImputed2Value0 + dummyHadCows.Large + dummyHadCows.LargeGrace +
    dummyHadCows.Cattle
[1] exclP
[[1]]
TotalImputed2Value ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
TotalImputed2Value ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + TotalImputed2Value0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
TotalImputed2Value \sim FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    TotalImputed2Value0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[4]]
TotalImputed2Value ~ FloodInRd1 + dummyHadCows + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + HHsize0 +
    HeadLiteracy0 + TotalImputed2Value0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyHadCows.LargeSize +
    dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
TotalImputed2Value ~ FloodInRd1 + dummyHadCows + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + HHsize0 +
    HeadLiteracy0 + TotalImputed2Value0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyHadCows.LargeSize +
    dummyHadCows.WithGrace + dummyHadCows.InKind
[1] excla
[[1]]
TotalImputed2Value ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
TotalImputed2Value ~ dummyLargeSize + dummyWithGrace + dummyInKind +
    TotalImputed2Value0
[[3]]
```

```
TotalImputed2Value ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputed2Value0
[[4]]
TotalImputed2Value ~ FloodInRd1 + dummyHadCows + dummyLargeSize +
   dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalImputed2Value0 + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
   dummyHadCows.InKind
[[5]]
TotalImputed2Value ~ FloodInRd1 + dummyHadCows + dummyLargeSize +
   dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalImputed2Value0 + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] exclT
[[1]]
TotalImputed2Value ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4
[[2]]
TotalImputed2Value ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + TotalImputed2Value0
[[3]]
TotalImputed2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
   dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputed2Value0
[[4]]
TotalImputed2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyHadCows +
   dummyLarge + dummyLargeGrace + dummyCattle + dummyLarge.Time3 +
   dummyLargeGrace.Time3 + dummyCattle.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + HHsize0 + HeadLiteracy0 +
   TotalImputed2Value0 + dummyHadCows.Large + dummyHadCows.Time3 +
   dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
   dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
   dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 +
    dummyHadCows.Cattle.Time4
[[5]]
TotalImputed2Value \sim FloodInRd1 + Time.3 + Time.4 + dummyHadCows +
   dummyLarge + dummyLargeGrace + dummyCattle + dummyLarge.Time3 +
   dummyLargeGrace.Time3 + dummyCattle.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + HHsize0 + HeadLiteracy0 +
   TotalImputed2Value0 + dummyHadCows.Large + dummyHadCows.Time3 +
   dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
   dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
   dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
   dummyHadCows.Cattle.Time4
[1] exclTa
[[1]]
TotalImputed2Value ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
```

dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +

```
dummyInKind.Time4
[[2]]
TotalImputed2Value ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
   dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + TotalImputed2Value0
TotalImputed2Value \sim FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputed2Value0
TotalImputed2Value \sim FloodInRd1 + Time.3 + Time.4 + dummyHadCows +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyLargeSize.Time4 +
   dummyWithGrace.Time4 + dummyInKind.Time4 + HHsize0 + HeadLiteracy0 +
   TotalImputed2Value0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
   dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
   dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
   dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
TotalImputed2Value \sim FloodInRd1 + Time.3 + Time.4 + dummyHadCows +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyLargeSize.Time4 +
   dummyWithGrace.Time4 + dummyInKind.Time4 + HHsize0 + HeadLiteracy0 +
   TotalImputed2Value0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```

III.5.3 Cattle holding

```
AttritIn
Arm
               2 3
                      4
                          9 Sum
 traditional
              7
                  4 20 144 175
                 2
              5
                      1 191 199
 large
                  3
                     3 170 188
 large grace 12
 cattle
              5
                 5 13 176 199
              29 14 37 681 761
 Sum
    NumCows
                                          7
tee
       0
             1
                  2
                      3
                           4
                                 5
                                     6
                                               8
                                                    9 <NA>
                                                            Sum
           308
                153
                                          0
 2
       15
                      40
                           11
                                 1
                                     2
                                               1
                                                    1
                                                      196
                                                            728
        5
          337
                175
                      40
                                          2
                                                      110
 3
                           15
                                     2
                                               1
                                                    0
                                                            688
                                1
 4
        4 218
               201
                      54
                           11
                                4
                                     2
                                          0
                                               1
                                                    1
                                                       86 582
 Sum
       24 863 529
                    134
                           37
                                6
                                     6
                                          2
                                               3
                                                    2 392 1998
```

```
Warning in `[.data.table`(lvoN, , `:=`(grepout("TotalImputed2?Value.?", : Column 'TotalImp
```

[1] 5

```
[1] excl
[[1]]
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle
[[2]]
```

```
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle + NumCows0
[[3]]
NumCows ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + NumCows0
ΓΓ4]]
NumCows ~ FloodInRd1 + dummyHadCows + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + NumCows0 + dummyHadCows.Large +
    dummyHadCows.LargeGrace + dummyHadCows.Cattle
[[5]]
NumCows ~ FloodInRd1 + dummyHadCows + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + NumCows0 + dummyHadCows.Large +
    dummyHadCows.LargeGrace + dummyHadCows.Cattle
[1] exclP
ΓΓ1]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[3]]
NumCows ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + dummyLargeSize.UltraPoor |+
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[4]]
NumCows ~ FloodInRd1 + dummyHadCows + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[[5]]
NumCows ~ FloodInRd1 + dummyHadCows + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] excla
[[1]]
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind + NumCows0
NumCows ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    HHsize0 + HeadLiteracy0 + NumCows0
[[4]]
NumCows ~ FloodInRd1 + dummyHadCows + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + dummyHadCows.LargeSize +
```

dummyHadCows.WithGrace + dummyHadCows.InKind

```
[[5]]
NumCows ~ FloodInRd1 + dummyHadCows + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + dummyHadCows.LargeSize +
    dummyHadCows.WithGrace + dummyHadCows.InKind
[1] exclT
ΓΓ177
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
   NumCows0
[[3]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0
[[4]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyHadCows + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
    dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
    dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[[5]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyHadCows + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
    dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
    dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[1] exclTa
[[1]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + NumCows0
[[3]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
```

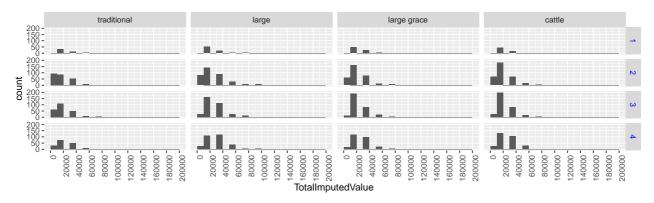


Figure 12: Total imputed value of livestock holding

Livestock holding values are computed by using respective median prices of each year.

```
dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0
[[4]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyHadCows + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
    dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyHadCows + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
    dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```

	HoldingClass									
tee	below	1000	1000-29999	30000-49999	above	50000	Sum			
1		623	99	30		9	761			
2		210	309	153		56	728			
3		115	337	175		61	688			
4		90	218	201		73	582			

	novortvetati	1.0						
povertystatus								
BStatus	Ultra Poor	Moderately P	oor	<na></na>				
borrower	409		163	0				
pure saver	0		0	0				
individual rejection	56		33	0				
group rejection	0		0	60				
rejection by flood	0		0	40				

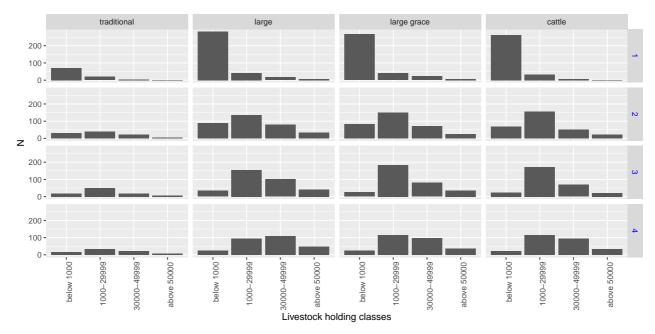


Figure 13: Histogram of livestock holding classes Livestock holding values are computed by using respective median prices of each year.

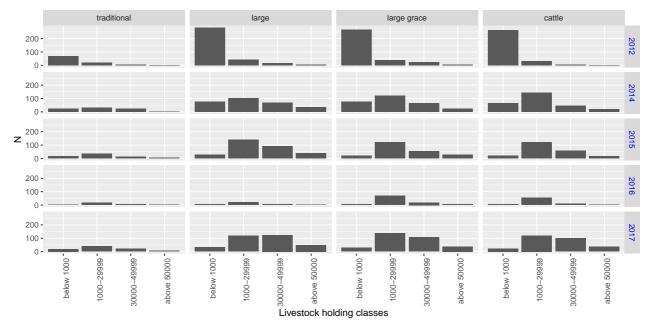
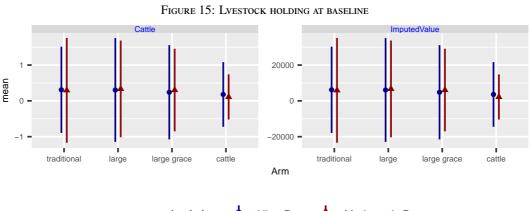


Figure 14: Histogram of livestock holding classes by year Livestock holding values are computed by using respective median prices of each year.

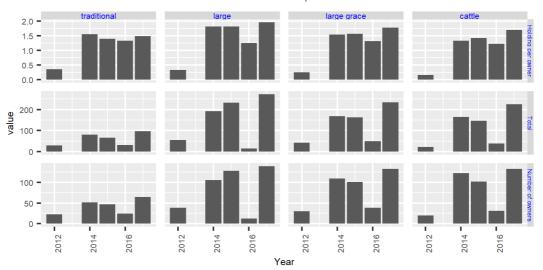


♠88Ultra Poor povertystatus Moderately Poor

• cattle reports above 20000 holding in rds 2-4 while traditional does not.

			T		
	Arm	survey	MeanImputedVal	MeanNumCows	N
1:	traditional	1	4557.82	0.227891	294
2:	traditional	2	18965.26	1.601449	234
3:	traditional	3	21270.53	1.502703	262
4:	traditional	4	23364.52	1.591195	217
5:	large	1	5513.78	0.275689	399
6:	large	2	29214.50	1.979253	327
7:	large	3	31623.09	1.798799	379
8:	large	4	33248.21	1.882175	375
9:	large grace	1	6666.67	0.333333	399
10:	large grace	2	24273.25	1.648649	302
11:	large grace	3	28044.08	1.532051	341
12:	large grace	4	31599.85	1.744108	328
13:	cattle	1	4360.90	0.218045	399
14:	cattle	2	22239.38	1.457031	336
15:	cattle	3	26102.42	1.474522	355
16:	cattle	4	29716.61	1.655405	330

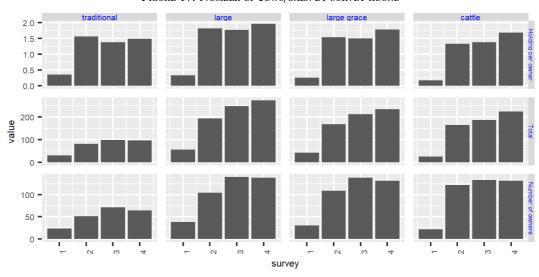
FIGURE 16: NUMBER OF COWS/OXEN BY YEAR



Source: Survey data.

Note:

Figure 17: Number of cows/oxen by survey round



Source: Survey data.

Note:

TABLE 40: ANCOVA ESTIMATION OF LIVESTOCK HOLDING VALUES

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		20988.8 (0.0)	19118.6 (0.0)	13496.7 (0.0)	13383.1 (0.0)
Large	0.273 (0.45)	9623.6 (0.3)	8925.8 (0.1)	8574.2 (0.2)	8296.2 (0.1)
LargeGrace	0.248 (0.43)	4808.8 (5.2)	4523.2 (5.2)	4614.1 (4.1)	4711.8 (3.9)
Cattle	0.264 (0.44)	4448.8 (1.0)	4681.4 (0.5)	4657.5 (0.5)	4582.7 (0.5)
HadCattle	0.195 (0.40)				6935.8 (14.7)
FloodInRd1	0.491 (0.50)			1032.3 (53.6)	1144.7 (49.2)
Head literate0	0.114 (0.32)			-560.4 (78.4)	-462.0 (82.0)
livestock value ₁	5315.315 (12450.23)		0.4 (0.0)	0.4 (0.1)	0.2 (33.6)
HHsize0	4.219 (1.43)			1267.1 (1.5)	1206.0 (2.1)
HadCattle × Large	0.063 (0.24)				12418.1 (12.5)
HadCattle × LargeGrace	0.049 (0.22)				746.9 (87.8)
HadCattle × Cattle	0.045 (0.21)				1345.6 (75.7)
mean of dependent variable $T = 2$		25986 40	25986 40	25986 40	25986 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.024 1998	0.076 1998	0.083 1998	0.095 1998

Source: Estimated with GUK administrative and survey data.

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

^{2.} *P* values in percentages in parenthesises. Standard errors are clustered at group (village) level. *P* values in parenthesises. Standard errors are clustered at group (village) level.

Table 41: ANCOVA estimation of livestock holding values by attributes

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		20988.8 (0.0)	19118.6 (0.0)	13496.7 (0.0)	13383.1 (0.0)
Unfront	0.785 (0.41)	9623.6 (0.3)	8925.8 (0.1)	8574.2 (0.2)	8296.2 (0.1)
WithGrace	0.512 (0.50)	-4814.7 (17.3)	-4402.6 (16.0)	-3960.1 (21.8)	-3584.4 (23.5)
InKind	0.264 (0.44)	-360.1 (86.9)	158.3 (94.3)	43.5 (98.4)	-129.1 (95.2)
HadCattle	0.195 (0.40)				6935.8 (14.7)
FloodInRd1	0.491 (0.50)			1032.3 (53.6)	1144.7 (49.2)
Head literate0	0.114 (0.32)			-560.4 (78.4)	-462.0 (82.0)
livestock value ₁	5315.315 (12450.23)		0.4 (0.0)	0.4 (0.1)	0.2 (33.6)
HHsize0	4.219 (1.43)			1267.1 (1.5)	1206.0 (2.1)
HadCattle × Unfront	0.157 (0.36)				12418.1 (12.5)
HadCattle × WithGrace	0.094 (0.29)				-11671.2 (15.6)
HadCattle × InKind	0.045 (0.21)				598.7 (89.3)
mean of dependent variable $T = 2$		25986 40	25986 40	25986 40	25986 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.024 1998	0.076 1998	0.083 1998	0.095 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

TABLE 42: ANCOVA ESTIMATION OF LIVESTOCK HOLDING VALUES, ULTRA VS. MODERATELY POOR

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		21953.7 (0.0)	19944.3 (0.0)	14138.4 (0.0)	13953.5 (0.0)
Unfront	0.785 (0.41)	9908.7 (0.2)	9383.5 (0.1)	9053.2 (0.1)	8760.7 (0.1)
WithGrace	0.512 (0.50)	-5000.0 (15.2)	-4606.3 (13.4)	-4207.4 (18.5)	-3847.6 (19.5)
InKind	0.264 (0.44)	-201.0 (92.6)	322.6 (88.3)	245.2 (90.9)	81.2 (97.0)
UltraPoor	0.630 (0.48)	-1902.4 (18.4)	-2004.4 (15.7)	-1956.6 (17.6)	-1780.7 (19.8)
Unfront × UltraPoor	0.524 (0.50)	-4782.5 (27.9)	-3397.7 (39.4)	-3531.0 (37.9)	-3069.6 (44.7)
WithGrace × UltraPoor	0.352 (0.48)	8053.9 (6.4)	8415.9 (5.0)	8910.6 (4.1)	8422.9 (4.5)
InKind × UltraPoor	0.181 (0.39)	-2300.4 (50.0)	-2272.3 (54.5)	-2366.3 (52.8)	-2562.7 (47.4)
HadCattle	0.195 (0.40)				6987.1 (14.9)
FloodInRd1	0.491 (0.50)			911.3 (58.2)	1033.5 (53.5)
Head literate0	0.114 (0.32)			-828.7 (68.2)	-713.5 (72.2)
livestock value ₁	5315.315 (12450.23)		0.4 (0.0)	0.4 (0.1)	0.2 (33.8)
HHsize0	4.219 (1.43)			1321.7 (0.9)	1255.4 (1.5)
HadCattle × Unfront	0.157 (0.36)				11265.2 (17.6)
HadCattle × WithGrace	0.094 (0.29)				-11119.9 (18.5)
HadCattle × InKind	0.045 (0.21)				368.9 (93.3)
mean of dependent variable $T = 2$		25986 40	25986 40	25986 40	25986 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582
$ar{R}^2$	1998	0.029 1998	0.082 1998	0.089 1998	0.1 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

TABLE 43: ANCOVA ESTIMATION OF LIVESTOCK HOLDING VALUES BY ATTRIBUTES AND PERIOD

TJ. AINCOVA ESTIMATION	OF LIVEST	OCK HOLDIN	O VALUES	DI AIIKID	OTES AND F
covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		18149.0 (0.0)	16157.5 (0.0)	10386.5 (0.0)	10100.7 (0.0)
Unfront	0.785 (0.41)	9780.4 (0.3)	9036.1 (0.1)	8661.0 (0.2)	8348.5 (0.2)
WithGrace	0.512 (0.50)	-5431.9 (12.3)	-4962.4 (11.2)	-4505.7 (15.8)	-4126.4 (17.0)
InKind	0.264 (0.44)	-5.1 (99.8)	492.8 (82.2)	368.0 (86.2)	238.0 (90.9)
rd 3	0.348 (0.48)	2891.6 (0.2)	3011.2 (0.1)	3062.4 (0.1)	3128.7 (0.1)
Upfront \times rd 3	0.269 (0.44)	-1951.6 (50.6)	-1782.3 (54.3)	-1726.7 (55.6)	-1435.2 (62.3)
WithGrace × rd 3	0.176 (0.38)	3035.2 (30.6)	2831.1 (33.3)	2799.9 (34.4)	2661.2 (35.6)
InKind × rd 3	0.091 (0.29)	-1695.5 (45.0)	-1777.5 (41.9)	-1766.4 (43.0)	-1847.5 (39.2)
rd 4	0.326 (0.47)	5956.7 (0.0)	6180.7 (0.0)	6249.3 (0.0)	6298.9 (0.0)
Unfront × rd 4	0.260 (0.44)	-665.3 (84.7)	-447.3 (89.6)	-322.6 (92.5)	-9.8 (99.8)
WithGrace × rd 4	0.166 (0.37)	4713.5 (17.3)	4384.1 (20.3)	4373.7 (20.8)	4256.5 (21.2)
InKind × rd 4	0.085 (0.28)	-2024.8 (46.2)	-1643.4 (55.3)	-1559.6 (57.4)	-1804.4 (51.3)
HadCattle	0.195 (0.40)				7657.7 (10.6)
HadCattle × rd 3	0.067 (0.25)				-4133.9 (4.5)
HadCattle × rd 4	0.061 (0.24)				-3786.4 (16.7)
FloodInRd1	0.491 (0.50)			1052.6 (52.7)	1157.6 (48.7)
Head literate0	0.114 (0.32)			-572.7 (78.0)	-480.5 (81.4)
livestock value ₁	5315.315 (12450.23)		0.4 (0.0)	0.4 (0.1)	0.2 (33.1)
HHsize0	4.219 (1.43)			1294.6 (1.3)	1236.7 (1.9)
HadCattle × Unfront	0.157 (0.36)				11420.4 (13.5)
HadCattle \times Upfront \times rd 3	0.054 (0.23)				5340.1 (32.4)
$HadCattle \times Unfront \times rd 4$	0.050 (0.22)				6789.7 (38.2)
HadCattle × WithGrace	0.094 (0.29)				-9187.7 (22.8)
HadCattle × WithGrace × rd 3	0.033 (0.18)				-13729.8 (3.0)
HadCattle \times WithGrace \times rd 4	0.029 (0.17)				-15645.7 (5.9)
HadCattle × InKind	0.045 (0.21)				-1531.9 (71.8)
HadCattle \times InKind \times rd 3	0.016 (0.13)				13406.1 (2.1)
HadCattle × InKind × rd 4	0.013 (0.11)				12935.4 (8.2)
mean of dependent variable $T = 2$		25986 40	25986 40	25986 40	25986 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.034 1998	0.088 1998	0.095 1998	0.108 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

TABLE 44: ANCOVA ESTIMATION OF LIVESTOCK HOLDING VALUES USING ANNUAL PRICES

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		29833.8 (0.0)	27298.2 (0.0)	20380.3 (0.0)	20397.5 (0.0)
Large	0.273 (0.45)	14325.3 (0.3)	13379.2 (0.1)	12940.4 (0.2)	12534.5 (0.1)
LargeGrace	0.248 (0.43)	7719.4 (3.5)	7332.1 (3.4)	7449.7 (2.7)	7586.5 (2.6)
Cattle	0.264 (0.44)	6838.6 (0.8)	7154.1 (0.4)	7129.0 (0.4)	7029.4 (0.4)
HadCattle	0.195 (0.40)				7594.1 (29.3)
FloodInRd1	0.491 (0.50)			1323.7 (58.3)	1444.6 (54.8)
Head literate0	0.114 (0.32)			-820.1 (78.6)	-597.0 (84.1)
livestock value ₁	5315.315 (12450.23)		0.5 (0.1)	0.5 (0.3)	0.3 (31.7)
HHsize0	4.219 (1.43)			1556.0 (3.6)	1455.2 (5.5)
HadCattle × Large	0.063 (0.24)				17919.6 (13.2)
HadCattle × LargeGrace	0.049 (0.22)				-81.7 (99.1)
HadCattle × Cattle	0.045 (0.21)				1433.8 (82.2)
HadCattle \times Cattle mean of dependent variable $T = 2$	0.045	37468 40	37468 40	37468 40	1433.8
mean of dependent variable	0.045				1433.8 (82.2) 37468

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

^{2.} *P* values in percentages in parenthesises. Standard errors are clustered at group (village) level. *P* values in parenthesises. Standard errors are clustered at group (village) level.

TABLE 45: ANCOVA ESTIMATION OF LIVESTOCK HOLDING VALUES USING ANNUAL PRICES BY ATTRIBUTES

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		29833.8 (0.0)	27298.2 (0.0)	20380.3 (0.0)	20397.5 (0.0)
Unfront	0.785 (0.41)	14325.3 (0.3)	13379.2 (0.1)	12940.4 (0.2)	12534.5 (0.1)
WithGrace	0.512 (0.50)	-6605.9 (19.9)	-6047.2 (18.6)	-5490.7 (24.7)	-4948.0 (26.5)
InKind	0.264 (0.44)	-880.8 (78.3)	-178.0 (95.6)	-320.7 (92.0)	-557.2 (86.1)
HadCattle	0.195 (0.40)				7594.1 (29.3)
FloodInRd1	0.491 (0.50)			1323.7 (58.3)	1444.6 (54.8)
Head literate0	0.114 (0.32)			-820.1 (78.6)	-597.0 (84.1)
livestock value ₁	5315.315 (12450.23)		0.5 (0.1)	0.5 (0.3)	0.3 (31.7)
HHsize0	4.219 (1.43)			1556.0 (3.6)	1455.2 (5.5)
HadCattle × Unfront	0.157 (0.36)				17919.6 (13.2)
HadCattle × WithGrace	0.094 (0.29)				-18001.2 (14.3)
HadCattle × InKind	0.045 (0.21)				1515.4 (82.4)
mean of dependent variable $T = 2$		37468 40	37468 40	37468 40	37468 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.02 1998	0.057 1998	0.06 1998	0.069 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

Table 46: ANCOVA estimation of livestock holding values using annual prices, ultra vs. moderately poor

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		30751.3 (0.0)	28025.8 (0.0)	20827.7 (0.0)	20777.2 (0.0)
Unfront	0.785 (0.41)	14679.3 (0.2)	13966.9 (0.0)	13551.8 (0.1)	13111.6 (0.0)
WithGrace	0.512 (0.50)	-6888.0 (17.8)	-6354.1 (16.0)	-5847.1 (21.4)	-5315.1 (22.8)
InKind	0.264 (0.44)	-695.9 (82.8)	14.3 (99.6)	-86.9 (97.8)	-322.5 (92.0)
UltraPoor	0.630 (0.48)	-1908.6 (35.2)	-2047.0 (31.9)	-1989.8 (34.0)	-1771.1 (37.3)
Unfront × UltraPoor	0.524 (0.50)	-5938.9 (33.5)	-4060.6 (46.4)	-4214.2 (44.3)	-3733.1 (50.2)
WithGrace × UltraPoor	0.352 (0.48)	10743.9 (8.4)	11234.9 (6.8)	11841.9 (5.7)	11039.6 (6.4)
InKind × UltraPoor	0.181 (0.39)	-2630.7 (61.1)	-2592.6 (65.4)	-2712.7 (64.0)	-2809.0 (60.9)
HadCattle	0.195 (0.40)				7693.1 (29.4)
FloodInRd1	0.491 (0.50)			1184.7 (62.1)	1314.5 (58.5)
Head literate0	0.114 (0.32)			-1075.9 (71.8)	-837.9 (77.5)
livestock value ₁	5315.315 (12450.23)		0.5 (0.1)	0.5 (0.3)	0.3 (32.1)
HHsize0	4.219 (1.43)			1633.5 (2.5)	1525.7 (4.2)
HadCattle × Upfront	0.157 (0.36)				16484.4 (17.8)
HadCattle × WithGrace	0.094 (0.29)				-17262.5 (16.7)
HadCattle × InKind	0.045 (0.21)				1203.5 (85.7)
mean of dependent variable $T = 2$		37468 40	37468 40	37468 40	37468 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.022 1998	0.059 1998	0.063 1998	0.071 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

TABLE 47: ANCOVA ESTIMATION OF LIVESTOCK HOLDING VALUES USING ANNUAL PRICES BY ATTRIBUTES AND PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		16429.0 (0.0)	13647.9 (0.0)	6119.4 (9.7)	6220.2 (10.2)
Unfront	0.785 (0.41)	12578.0 (0.3)	11538.6 (0.1)	11055.8 (0.2)	10794.8 (0.2)
WithGrace	0.512 (0.50)	-6302.8 (17.0)	-5647.2 (16.1)	-5063.0 (22.3)	-4688.1 (23.5)
InKind	0.264 (0.44)	-314.6 (91.1)	380.7 (89.4)	236.1 (93.2)	53.7 (98.4)
rd 3	0.348 (0.48)	9406.7 (0.0)	9573.8 (0.0)	9642.3 (0.0)	9623.2 (0.0)
Unfront \times rd 3	0.269 (0.44)	174.5 (95.7)	410.9 (90.0)	486.9 (88.2)	512.6 (87.2)
WithGrace × rd 3	0.176 (0.38)	1965.7 (55.3)	1680.7 (60.9)	1635.2 (62.4)	1755.6 (58.4)
InKind × rd 3	0.091 (0.29)	-1895.4 (45.4)	-2009.9 (41.8)	-1995.3 (43.0)	-2005.2 (41.9)
rd 4	0.326 (0.47)	34346.9 (0.0)	34659.8 (0.0)	34750.6 (0.0)	34655.0 (0.0)
Upfront × rd 4	0.260 (0.44)	8870.9 (15.5)	9175.4 (14.3)	9339.5 (13.6)	8855.8 (12.1)
WithGrace × rd 4	0.166 (0.37)	2180.9 (73.6)	1720.9 (79.2)	1702.4 (79.6)	2276.6 (70.7)
InKind × rd 4	0.085 (0.28)	-3117.7 (51.4)	-2585.1 (59.1)	-2480.4 (60.6)	-2483.2 (61.0)
HadCattle	0.195 (0.40)				7384.0 (30.3)
HadCattle × rd 3	0.067 (0.25)				-1526.9 (54.8)
HadCattle × rd 4	0.061 (0.24)				6716.8 (22.7)
FloodInRd1	0.491 (0.50)			1317.1 (58.3)	1446.8 (54.6)
Head literate0	0.114 (0.32)			-957.8 (75.2)	-696.0 (81.6)
livestock value ₁	5315.315 (12450.23)		0.5 (0.1)	0.5 (0.2)	0.3 (29.4)
HHsize0	4.219 (1.43)		, ,	1699.5 (2.2)	1600.3 (3.4)
HadCattle × Upfront	0.157 (0.36)				15734.5 (12.8)
HadCattle \times Upfront \times rd 3	0.054 (0.23)				8816.8 (20.7)
HadCattle \times Upfront \times rd 4	0.050 (0.22)				21766.8 (20.4)
HadCattle × WithGrace	0.094 (0.29)				-14244.8 (17.3)
HadCattle \times WithGrace \times rd 3	0.033 (0.18)				-17856.0 (2.7)
HadCattle \times WithGrace \times rd 4	0.029 (0.17)				-33784.7 (6.1)
HadCattle × InKind	0.045 (0.21)				12.1 (99.8)
HadCattle × InKind × rd 3	0.016 (0.13)				14707.2 (2.8)
HadCattle × InKind × rd 4	0.013 (0.11)				17092.8 (17.0)
mean of dependent variable $T = 2$		37468 40	37468 40	37468 40	37468 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.195 1998	0.235 1998	0.239 1998	0.252 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

 $^{2.\} P$ values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 48: ANCOVA ESTIMATION OF LIVESTOCK HOLDING

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		1.49 (0.0)	1.39 (0.0)	1.16 (0.0)	1.17 (0.0)
Large	0.273 (0.45)	0.39 (0.9)	0.37 (0.6)	0.35 (1.1)	0.31 (0.7)
LargeGrace	0.248 (0.43)	0.07 (53.9)	0.08 (47.6)	0.09 (43.7)	0.07 (49.9)
Cattle	0.264 (0.44)	0.00 (98.8)	0.02 (77.9)	0.02 (80.6)	0.00 (95.7)
HadCattle	0.195 (0.40)				0.16 (41.1)
FloodInRd1	0.491 (0.50)			0.04 (59.7)	0.05 (53.4)
Head literate0	0.114 (0.32)			0.01 (89.4)	0.01 (88.7)
NumCattle0	0.266 (0.62)		0.30 (0.3)	0.29 (0.6)	0.19 (22.3)
HHsize0	4.219 (1.43)			0.05 (4.3)	0.05 (5.0)
HadCattle × Large	0.063 (0.24)				0.73 (5.7)
HadCattle × LargeGrace	0.049 (0.22)				0.40 (3.8)
HadCattle × Cattle	0.045 (0.21)				0.27 (17.4)
mean of dependent variable $T = 2$		1.61 85	1.61 85	1.61 85	1.61 85
T = 3 $T = 4$		168 395	168 395	168 395	168 395
$ar{R}^2 N$	1998	0.03 1606	0.074 1606	0.078 1606	0.091 1606

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

Table 49: ANCOVA estimation of livestock holding by attributes

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		1.49 (0.0)	1.39 (0.0)	1.16 (0.0)	1.17 (0.0)
Unfront	0.785 (0.41)	0.39 (0.9)	0.37 (0.6)	0.35 (1.1)	0.31 (0.7)
WithGrace	0.512 (0.50)	-0.32 (6.2)	-0.29 (5.1)	-0.27 (8.7)	-0.24 (8.8)
InKind	0.264 (0.44)	-0.07 (50.7)	-0.06 (57.5)	-0.07 (51.0)	-0.07 (48.7)
HadCattle	0.195 (0.40)				0.16 (41.1)
FloodInRd1	0.491 (0.50)			0.04 (59.7)	0.05 (53.4)
Head literate0	0.114 (0.32)			0.01 (89.4)	0.01 (88.7)
NumCattle()	0.266 (0.62)		0.30 (0.3)	0.29 (0.6)	0.19 (22.3)
HHsize0	4.219 (1.43)			0.05 (4.3)	0.05 (5.0)
HadCattle × Unfront	0.157 (0.36)				0.73 (5.7)
HadCattle × WithGrace	0.094 (0.29)				-0.32 (39.5)
HadCattle × InKind	0.045 (0.21)				-0.14 (45.0)
mean of dependent variable $T = 2$		1.61 85	1.61 85	1.61 85	1.61 85
T = 3 $T = 4$		168 395	168 395	168 395	168 395
$ar{R}^2 N$	1998	0.03 1606	0.074 1606	0.078 1606	0.091 1606

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

Table 50: ANCOVA estimation of livestock holding, ultra vs. moderately poor

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		1.51 (0.0)	1.41 (0.0)	1.16 (0.0)	1.17 (0.0)
Unfront	0.785 (0.41)	0.42 (0.4)	0.40 (0.1)	0.39 (0.3)	0.35 (0.1)
WithGrace	0.512 (0.50)	-0.33 (5.0)	-0.30 (3.7)	-0.28 (7.0)	-0.25 (6.5)
InKind	0.264 (0.44)	-0.07 (54.5)	-0.05 (62.0)	-0.06 (55.1)	-0.06 (53.0)
UltraPoor	0.630 (0.48)	-0.08 (19.1)	-0.09 (15.4)	-0.09 (16.9)	-0.07 (24.3)
Unfront × UltraPoor	0.524 (0.50)	-0.08 (62.5)	-0.01 (93.0)	-0.00 (99.4)	-0.04 (81.3)
WithGrace × UltraPoor	0.352 (0.48)	0.49 (1.1)	0.51 (0.7)	0.52 (0.8)	0.51 (0.9)
InKind × UltraPoor	0.181 (0.39)	-0.11 (53.8)	-0.10 (57.5)	-0.10 (58.8)	-0.11 (54.8)
HadCattle	0.195 (0.40)				0.17 (39.5)
FloodInRd1	0.491 (0.50)			0.05 (58.0)	0.05 (53.9)
Head literate0	0.114 (0.32)			0.01 (90.2)	0.01 (89.5)
NumCattle0	0.266 (0.62)		0.31 (0.2)	0.30 (0.6)	0.19 (23.2)
HHsize0	4.219 (1.43)			0.05 (2.2)	0.05 (3.0)
HadCattle × Unfront	0.157 (0.36)				0.63 (10.9)
HadCattle × WithGrace	0.094 (0.29)				-0.30 (44.3)
HadCattle × InKind	0.045 (0.21)				-0.15 (40.0)
mean of dependent variable $T = 2$		1.61 85	1.61 85	1.61 85	1.61 85
T = 3 $T = 4$		168 395	168 395	168 395	168 395
$ar{R}^2 N$	1998	0.041 1606	0.087 1606	0.093 1606	0.102 1606

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

TABLE 51: ANCOVA ESTIMATION OF LIVESTOCK HOLDING BY TIME

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covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		1.47 (0.0)	1.36 (0.0)	1.12 (0.0)	1.14 (0.0)
Large	0.273 (0.45)	0.39 (0.6)	0.37 (0.4)	0.35 (0.8)	0.30 (0.7)
LargeGrace	0.248 (0.43)	0.01 (93.4)	0.02 (87.4)	0.02 (83.9)	-0.00 (99.4)
Cattle	0.264 (0.44)	-0.05 (44.1)	-0.03 (72.0)	-0.03 (67.5)	-0.05 (44.5)
rd 3	0.348 (0.48)	-0.02 (71.4)	0.00 (97.3)	0.00 (93.8)	0.00 (94.5)
Large × rd 3	0.094 (0.29)	-0.05 (74.9)	-0.05 (75.5)	-0.05 (77.9)	-0.02 (91.3)
LargeGrace × rd 3	0.085 (0.28)	0.19 (28.5)	0.20 (25.5)	0.21 (24.9)	0.25 (15.2)
Cattle × rd 3	0.091 (0.29)	0.17 (18.0)	0.16 (23.6)	0.16 (24.6)	0.18 (15.7)
rd 4	0.326 (0.47)	0.16 (1.0)	0.18 (0.5)	0.19 (0.4)	0.19 (0.3)
Large × rd 4	0.094 (0.29)	0.04 (80.3)	0.04 (81.9)	0.05 (78.2)	0.08 (62.6)
LargeGrace × rd 4	0.081 (0.27)	0.41 (3.0)	0.39 (3.2)	0.40 (3.0)	0.45 (1.2)
Cattle × rd 4	0.085 (0.28)	0.34 (0.8)	0.34 (1.1)	0.35 (1.1)	0.37 (0.4)
HadCattle	0.195 (0.40)	, ,	, ,	,	0.16 (40.9)
HadCattle × rd 3	0.067 (0.25)				0.05 (69.7)
HadCattle × rd 4	0.061 (0.24)				-0.05 (74.4)
FloodInRd1	0.491 (0.50)			0.05 (57.2)	0.05 (50.6)
Head literate0	0.114 (0.32)			0.02 (85.6)	0.02 (85.2)
NumCattle0	0.266 (0.62)		0.31 (0.3)	0.29 (0.6)	0.19 (21.1)
HHsize0	4.219 (1.43)		,	0.05 (3.7)	0.05 (4.2)
HadCattle × Large	0.063 (0.24)				0.70 (4.4)
HadCattle \times Large \times rd 3	0.021 (0.14)				0.15 (63.4)
HadCattle × Large × rd 4	0.021 (0.14)				0.10 (81.6)
HadCattle × LargeGrace	0.049 (0.22)				0.49 (1.3)
HadCattle × LargeGrace × rd 3	0.017 (0.13)				-0.17 (62.4)
HadCattle \times LargeGrace \times rd 4	0.016 (0.13)				-0.61 (10.4)
HadCattle × Cattle	0.045 (0.21)				0.27 (18.3)
HadCattle \times Cattle \times rd 3	0.016 (0.13)				0.15 (58.6)
HadCattle \times Cattle \times rd 4	0.013 (0.11)				0.07 (82.8)
mean of dependent variable $T = 2$		1.61 85	1.61 85	1.61 85	1.61 85
T = 3 $T = 4$		168 395	168 395	168 395	168 395
$ar{R}^2 N$	1998	0.039 1606	0.083 1606	0.089 1606	0.099 1606

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 52: ANCOVA ESTIMATION OF LIVESTOCK HOLDING BY TIMEAND ATTRIBUTES

ABLE 32. AINCOVA ESTIM	ALION OF	LIVESTOCK	HOLDING B1	TIMEANL	ALIKIDULES
covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		1.47 (0.0)	1.36 (0.0)	(0.0)	1.14 (0.0)
Unfront	0.785 (0.41)	0.39 (0.6)	0.37 (0.4)	0.35 (0.8)	0.30 (0.7)
WithGrace	0.512 (0.50)	-0.38 (2.6)	-0.35 (1.9)	-0.33 (3.7)	-0.31 (3.4)
InKind	0.264 (0.44)	-0.06 (59.8)	-0.05 (68.3)	-0.05 (62.1)	-0.05 (63.8)
rd 3	0.348 (0.48)	-0.02 (71.4)	0.00 (97.3)	0.00 (93.8)	0.00 (94.5)
Upfront \times rd 3	0.269 (0.44)	-0.05 (74.9)	-0.05 (75.5)	-0.05 (77.9)	-0.02 (91.3)
WithGrace \times rd 3	0.176 (0.38)	0.24 (17.1)	0.25 (14.2)	0.25 (14.7)	0.27 (13.1)
InKind × rd 3	0.091 (0.29)	-0.02 (90.7)	-0.05 (75.1)	-0.05 (72.5)	-0.07 (64.2)
rd 4	0.326 (0.47)	0.16 (1.0)	0.18 (0.5)	0.19 (0.4)	0.19 (0.3)
Upfront × rd 4	0.260 (0.44)	0.04 (80.3)	0.04 (81.9)	0.05 (78.2)	0.08 (62.6)
WithGrace × rd 4	0.166 (0.37)	0.36 (7.8)	0.35 (8.3)	0.36 (8.4)	0.37 (6.9)
InKind × rd 4	0.085 (0.28)	-0.06 (73.2)	-0.05 (77.4)	-0.05 (76.1)	-0.08 (66.3)
HadCattle	0.195 (0.40)				0.16 (40.9)
HadCattle × rd 3	0.067 (0.25)				0.05 (69.7)
HadCattle × rd 4	0.061 (0.24)				-0.05 (74.4)
FloodInRd1	0.491 (0.50)			0.05 (57.2)	0.05 (50.6)
Head literate0	0.114 (0.32)			0.02 (85.6)	0.02 (85.2)
NumCattle0	0.266 (0.62)		0.31 (0.3)	0.29 (0.6)	0.19 (21.1)
HHsize0	4.219 (1.43)			0.05 (3.7)	0.05 (4.2)
HadCattle × Unfront	0.157 (0.36)				0.70 (4.4)
HadCattle \times Upfront \times rd 3	0.054 (0.23)				0.15 (63.4)
HadCattle × Upfront × rd 4	0.050 (0.22)				0.10 (81.6)
HadCattle × WithGrace	0.094 (0.29)				-0.21 (53.3)
$HadCattle \times WithGrace \times rd 3$	0.033 (0.18)				-0.33 (37.2)
HadCattle \times WithGrace \times rd 4	0.029 (0.17)				-0.71 (11.0)
HadCattle × InKind	0.045 (0.21)				-0.22 (22.0)
HadCattle \times InKind \times rd 3	0.016 (0.13)				0.32 (34.1)
HadCattle \times InKind \times rd 4	0.013 (0.11)				0.68 (6.1)
mean of dependent variable $T = 2$		1.61 85	1.61 85	1.61 85	1.61 85
T = 3 $T = 4$		168 395	168 395	168 395	168 395
$ar{R}^2 N$	1998	0.039 1606	0.083 1606	0.089 1606	0.099 1606

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Regressand is TotalImputedValue, a sum of all livestock holding values evaluated at respective median market prices in the same year.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Finding III.3 Figure 14 shows increasing livestock accumulation in all arms but traditional. Figure 16 shows increasing cow ownership relative to traditional in the bottom panel while the holding per owner is similar across all arms. This is evidence of an acceleration of becoming a large livestock owner for the large sized arms relative to the small size arm. Given that the number of cows per owner remains the similar, it does not provide evidence for accelerated growth of livestock after becoming an owner.

III.5.4 Productive assets

```
Number of obs by Arm and attrition
          AttritIn
             2 3
                    4 9 Sum
 traditional 6 4 20 144 174
 large
             5 2 1 191 199
 large grace 22 3 3 170 198
 cattle 5 5 13 176 199
Sum 38 14 37 681 770
Number of obs by membership status and attrition
                   AttritIn
BStatus
                     2 3 4 9 Sum
                      8 6 8 575 597
 borrower
 pure saver
                     0 0 0 0 0
 individual rejection 9 4 1 75 89
 group rejection 9 4 0 55 rejection by flood 12 0 28 0
                     9 4 0 55 68
                                    40
                     38 14 37 705 794
```

Error in eval(ei, envir): オブジェクト 'NeA1R8' がありません

```
[1] excl
[[1]]
PAssetAmount ~ dummyLarge + dummyLargeGrace + dummyCattle

[[2]]
PAssetAmount ~ dummyLarge + dummyLargeGrace + dummyCattle + PAssetAmount0

[[3]]
PAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle + HHsize0 + HeadLiteracy0 + PAssetAmount0

[[4]]
PAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle + dummyHadCows + HHsize0 + HeadLiteracy0 + PAssetAmount0 + dummyHadCows.Large + dummyHadCows.Cattle

[[5]]
PAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle + HHsize0 + HeadLiteracy0 + PAssetAmount0 + NumCows0

[[6]]
PAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle + dummyHadCows + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
```

```
NumCows0 + dummyHadCows.Large + dummyHadCows.LargeGrace +
    dummyHadCows.Cattle
[1] exclP
[[1]]
PAssetAmount ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
PAssetAmount ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + PAssetAmount0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
PAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
ΓΓ4]]
PAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[[5]]
PAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[6]]
PAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] excla
[[1]]
PAssetAmount ~ dummyLargeSize + dummyWithGrace + dummyInKind
PAssetAmount ~ dummyLargeSize + dummyWithGrace + dummyInKind +
    PAssetAmount0
[[3]]
PAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + PAssetAmount0
ΓΓ4]]
PAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
    dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
PAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + PAssetAmount0 + NumCows0
```

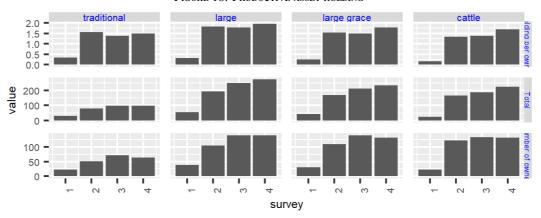
```
[[6]]
PAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
   NumCows0 + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] exclT
ΓΓ177
PAssetAmount ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4
[[2]]
PAssetAmount ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + PAssetAmount0
[[3]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0
[[4]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
    dummyHadCows.Cattle.Time4
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
    NumCows0
[[6]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
    dummyHadCows.Cattle.Time4
[1] exclTa
[[1]]
PAssetAmount \sim Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
```

```
[[2]]
PAssetAmount ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + PAssetAmount0
[[3]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
   NumCows0
[[6]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSi|ze.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[1] exclTPa
[[1]]
PAssetAmount ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[2]]
PAssetAmount ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    PAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
```

```
[[3]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    \tt dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + \\
    dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
    dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[4]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
    dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
    dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
    dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
    dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
    NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[6]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
    dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
    dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```

Error in subset(NeAfig, !is.na(Arm)): オブジェクト 'NeAfig' がありません

FIGURE 18: PRODUCTIVE ASSET HOLDING



Source: Survey data.

Note:

TABLE 53: ANCOVA ESTIMATION OF PRODUCTIVE ASSETS

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		571.2 (0.0)	200.5 (16.1)	313.7 (30.8)	358.2 (33.6)	331.2 (33.9)
Large	0.021 (0.45)	1240.1 (3.6)	1166.3 (4.2)	1281.1 (2.8)	1526.2 (2.5)	1354.3 (2.7)
LargeGrace	0.002 (0.43)	796.4 (9.6)	655.8 (16.2)	609.1 (17.9)	667.1 (17.8)	644.3 (15.7)
Cattle	0.017 (0.44)	149.9 (39.8)	188.5 (32.3)	253.7 (23.5)	291.3 (21.4)	350.6 (13.7)
HadCattle	0.218 (0.41)				88.4 (83.9)	
FloodInRd1	0.487 (0.50)			-662.6 (8.8)	-867.9 (6.3)	-709.0 (9.6)
Head literate0	0.121 (0.33)			-595.0 (2.0)	-692.3 (4.2)	-622.5 (2.7)
productive asset value ₁	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.5)	0.4 (0.2)	0.4 (0.2)
HHsize0	4.306 (1.43)			58.9 (52.5)	48.3 (68.1)	35.3 (74.2)
HadCattle × Large	0.016 (0.22)				139.7 (90.6)	
HadCattle × LargeGrace	0.004 (0.20)				1548.0 (21.3)	
$HadCattle \times Cattle$	-0.006 (0.19)				201.2 (59.7)	
NumCattle0	0.300 (0.66)					93.8 (79.0)
mean of dependent variable $T = 2$		1125 20	1125 20	1125 20	1125 17	1125 14
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604
$ar{R}^2 N$	1718	0.005 2118	0.026 2097	0.028 2097	0.031 1718	0.03 1938

Source: Estimated with GUK administrative and survey data.

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Only households that are observed for all 4 rounds are used. Households are continuing members and replacing members of early rejecters and received loans prior to 2015 January. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

Table 54: ANCOVA estimation of productive assets by attributes

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		571.2 (0.0)	200.5 (16.1)	313.7 (30.8)	358.2 (33.6)	331.2 (33.9)
Unfront	0.040 (0.41)	1240.1 (3.6)	1166.3 (4.2)	1281.1 (2.8)	1526.2 (2.5)	1354.3 (2.7)
WithGrace	0.019 (0.50)	-443.7 (55.6)	-510.4 (48.6)	-672.0 (35.4)	-859.2 (30.3)	-710.0 (35.1)
InKind	0.017 (0.44)	-646.5 (19.7)	-467.3 (34.2)	-355.5 (44.8)	-375.8 (45.0)	-293.7 (53.4)
HadCattle	0.218 (0.41)				88.4 (83.9)	
FloodInRd1	0.487 (0.50)			-662.6 (8.8)	-867.9 (6.3)	-709.0 (9.6)
Head literate0	0.121 (0.33)			-595.0 (2.0)	-692.3 (4.2)	-622.5 (2.7)
productive asset value ₁	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.5)	0.4 (0.2)	0.4 (0.2)
HHsize0	4.306 (1.43)			58.9 (52.5)	48.3 (68.1)	35.3 (74.2)
HadCattle × Unfront	0.014 (0.18)				139.7 (90.6)	
HadCattle × WithGrace	-0.002 (0.23)				1408.3 (40.1)	
HadCattle × InKind	-0.006 (0.19)				-1346.8 (28.3)	
NumCattle0	0.300 (0.66)					93.8 (79.0)
mean of dependent variable $T = 2$		1125 20	1125 20	1125 20	1125 17	1125 14
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604
$ar{R}^2 N$	1718	0.005 2118	0.026 2097	0.028 2097	0.031 1718	0.03 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Only households that are observed for all 4 rounds are used. Households are continuing members and replacing members of early rejecters and received loans prior to 2015 January. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

 $2.\ P\ values\ in\ percentages\ in\ parenthesises.\ Standard\ errors\ are\ clustered\ at\ group\ (village)\ level.$

Table 55: ANCOVA estimation of broad productive assets by period

and the second	maa-/std	(1)	(2)	(2)	(A)	(5)
covariates (Intercept)	mean/std	(1) 841.5	(2) 470.6	(3) 591.4	(4) 657.3	(5) 606.0
Large	0.021	(0.0) 1460.4	(1.7) 1388.4	(10.7) 1505.5	(12.0) 1737.5	(13.4) 1545.9
	(0.45)	(3.5)	(4.0)	(2.8)	(2.7)	(2.8)
LargeGrace	0.002 (0.43)	928.2 (10.5)	791.6 (15.9)	744.0 (17.4)	766.8 (18.4)	755.4 (16.2)
Cattle	0.017 (0.44)	117.7 (51.4)	165.6 (39.0)	232.5 (28.4)	270.7 (28.1)	307.4 (19.9)
rd 3	0.342 (0.47)	-293.2 (19.3)	-300.5 (18.8)	-303.4 (18.4)	-334.6 (19.3)	-275.7 (22.4)
Large × rd 3	0.094 (0.29)	-814.3 (28.0)	-822.5 (27.8)	-820.2 (27.9)	-826.4 (35.6)	-701.6 (35.5)
LargeGrace × rd 3	0.084 (0.28)	-157.1 (73.3)	-157.3 (73.8)	-144.5 (75.8)	47.8 (92.2)	-26.8 (95.4)
Cattle \times rd 3	0.089 (0.28)	228.4 (33.1)	149.8 (55.0)	158.0 (53.3)	182.6 (44.4)	315.4 (21.3)
rd 4	0.316 (0.47)	-746.5 (0.8)	-745.6 (0.8)	-747.7 (0.8)	-855.6 (0.5)	-758.7 (0.7)
Large × rd 4	0.093 (0.29)	-1534.3 (7.1)	-1544.9 (7.0)	-1566.5 (6.8)	-1540.0 (11.0)	-1441.9 (9.0)
LargeGrace × rd 4	0.079 (0.27)	-1223.1 (9.0)	-1260.4 (8.6)	-1271.0 (8.6)	-1178.3 (10.4)	-1189.4 (10.5)
Cattle × rd 4	0.082 (0.27)	115.3 (65.0)	96.3 (71.2)	67.3 (80.4)	75.0 (76.9)	207.1 (44.0)
HadCattle	0.218 (0.41)				173.8 (74.1)	
HadCattle × rd 3	0.075 (0.26)				-164.7 (71.5)	
HadCattle × rd 4	0.068 (0.25)				-829.9 (31.7)	
FloodInRd1	0.487 (0.50)			-666.2 (8.8)	-868.0 (6.4)	-707.9 (9.7)
Head literate0	0.121 (0.33)			-596.9 (2.0)	-685.4 (4.5)	-621.8 (2.7)
productive asset value ₁	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.6)	0.4 (0.2)	0.4 (0.2)
HHsize0	4.306 (1.43)			57.8 (53.4)	48.3 (68.3)	35.9 (73.9)
HadCattle × Large	0.016 (0.22)				40.2 (97.6)	
HadCattle \times Large \times rd 3	0.005 (0.13)				841.8 (46.3)	
HadCattle × Large × rd 4	0.006 (0.13)				153.9 (92.8)	
$HadCattle \times LargeGrace$	0.004 (0.20)				2070.8 (19.4)	
HadCattle × LargeGrace × rd 3	0.001 (0.12)				-2020.7 (14.6)	
HadCattle × LargeGrace × rd 4	0.002 (0.12)				-3922.5 (16.7)	
HadCattle × Cattle	-0.006 (0.19)				286.1 (47.1)	
HadCattle \times Cattle \times rd 3	-0.001 (0.11)				-583.7 (16.7)	
HadCattle \times Cattle \times rd 4	-0.003 (0.10)				-621.5 (15.3)	
NumCattle0	0.300 (0.66)					93.3 (79.2)
mean of dependent variable $T = 2$		1125 20	1125 20	1125 20	1125 17	1125 14
$\begin{array}{c} T = 3 \\ T = 4 \end{array}$		101 632	101 625	101 625	57 529	56 604
$ar{R}^2 N$	1718	0.007 2118	0.027 2097	0.029 2097	0.029 1718	0.031 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Only households that are observed for all 4 rounds are used. Households are continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 56: ANCOVA estimation of broad productive assets by attributes and period

ABI	LE 30: AINCOVA ESTIM	IATION OF	BROAD PROL	DUCTIVE AS	SETS BY AT	TRIBUTES A	AND PERIOD
	covariates	mean/std	(1)	(2)	(3)	(4)	(5)
	(Intercept)		841.5 (0.0)	470.6 (1.7)	591.4 (10.7)	657.3 (12.0)	606.0 (13.4)
	Unfront	0.040 (0.41)	1460.4 (3.5)	1388.4 (4.0)	1505.5 (2.8)	1737.5 (2.7)	1545.9 (2.8)
	WithGrace	0.019 (0.50)	-532.2 (54.9)	-596.8 (49.2)	-761.5 (37.6)	-970.7 (31.4)	-790.5 (37.0)
	InKind	0.017 (0.44)	-810.6 (16.7)	-626.0 (27.6)	-511.5 (35.2)	-496.1 (38.4)	-448.0 (41.0)
	rd 3	0.342 (0.47)	-293.2 (19.3)	-300.5 (18.8)	-303.4 (18.4)	-334.6 (19.3)	-275.7 (22.4)
	Unfront \times rd 3	0.267 (0.44)	-814.3 (28.0)	-822.5 (27.8)	-820.2 (27.9)	-826.4 (35.6)	-701.6 (35.5)
	WithGrace × rd 3	0.173 (0.38)	657.2 (43.8)	665.2 (43.6)	675.7 (43.1)	874.2 (36.9)	674.9 (42.8)
	InKind × rd 3	0.089 (0.28)	385.5 (39.3)	307.1 (50.9)	302.6 (51.5)	134.8 (76.1)	342.1 (44.8)
	rd 4	0.316 (0.47)	-746.5 (0.8)	-745.6 (0.8)	-747.7 (0.8)	-855.6 (0.5)	-758.7 (0.7)
	Unfront × rd 4	0.254 (0.44)	-1534.3 (7.1)	-1544.9 (7.0)	-1566.5 (6.8)	-1540.0 (11.0)	-1441.9 (9.0)
	WithGrace × rd 4	0.161 (0.37)	311.2 (77.2)	284.4 (79.4)	295.5 (78.7)	361.7 (75.4)	252.6 (81.6)
	InKind × rd 4	0.082 (0.27)	1338.4 (5.9)	1356.8 (6.0)	1338.3 (6.3)	1253.3 (6.3)	1396.5 (5.4)
	HadCattle	0.218 (0.41)				173.8 (74.1)	
	HadCattle × rd 3	0.075 (0.26)				-164.7 (71.5)	
	HadCattle × rd 4	0.068 (0.25)				-829.9 (31.7)	
	FloodInRd1	0.487 (0.50)			-666.2 (8.8)	-868.0 (6.4)	-707.9 (9.7)
	Head literate0	0.121 (0.33)			-596.9 (2.0)	-685.4 (4.5)	-621.8 (2.7)
	productive asset value ₁	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.6)	0.4 (0.2)	0.4 (0.2)
	HHsize0	4.306 (1.43)			57.8 (53.4)	48.3 (68.3)	35.9 (73.9)
	HadCattle × Unfront	0.014 (0.18)				40.2 (97.6)	
	HadCattle \times Upfront \times rd 3	0.004 (0.11)				841.8 (46.3)	
	$HadCattle \times Upfront \times rd 4$	0.005 (0.10)				153.9 (92.8)	
	HadCattle × WithGrace	-0.002 (0.23)				2030.5 (32.3)	
Ŧ	HadCattle × WithGrace × rd 3	-0.000 (0.14)				-2862.5 (10.4)	
I	HadCattle × WithGrace × rd 4	-0.001 (0.13)				-4076.3 (21.6)	
	HadCattle × InKind	-0.006 (0.19)				-1784.7 (26.6)	
	HadCattle × InKind × rd 3	-0.001 (0.11)				1437.0 (30.6)	
	HadCattle × InKind × rd 4	-0.003 (0.10)				3300.9 (24.3)	
	NumCattle0	0.300 (0.66)					93.3 (79.2)
	mean of dependent variable $T = 2$		1125 20	1125 20	1125 20	1125 17	1125 14
	$\begin{array}{c} T = 3 \\ T = 4 \end{array}$		101 632	101 625	101 625	57 529	56 604
	$ar{R}^2 N$	1718	0.007 2118	0.027 2097	0.029 2097	0.029 1718	0.031 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Only households that are observed for all 4 rounds are used. Households are continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 57: ANCOVA estimation of broad productive assets by attributes, poverty status, and period

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		869.2 (0.0)	499.8 (1.7)	643.9 (9.1)	693.1 (11.9)	657.0 (11.9)
Unfront	0.040 (0.41)	1428.7 (4.0)	1349.6 (4.6)	1455.0 (3.1)	1699.9 (3.4)	1489.2 (3.0)
WithGrace	0.019 (0.50)	-572.1 (51.9)	-640.3 (46.0)	-820.9 (34.0)	-1073.4 (27.5)	-849.4 (33.6)
InKind	0.017 (0.44)	-760.9 (19.6)	-569.2 (32.6)	-438.7 (43.1)	-396.5 (48.4)	-378.2 (49.0)
UltraPoor	0.625 (0.48)	-148.6 (75.7)	-144.4 (76.6)	-147.0 (76.3)	-194.3 (73.0)	-146.4 (76.7)
$Unfront \times UltraPoor$	0.051 (0.30)	-1260.9 (47.2)	-1332.1 (45.5)	-1682.8 (37.4)	-2034.2 (35.7)	-1655.9 (39.5)
WithGrace \times UltraPoor	0.036 (0.39)	1494.4 (40.5)	1550.3 (39.1)	1723.2 (35.6)	2278.0 (29.5)	1762.8 (35.2)
InKind × UltraPoor	0.019 (0.35)	-714.1 (22.5)	-778.3 (15.9)	-847.1 (12.4)	-1232.3 (4.2)	-837.1 (13.4)
rd 3	0.342 (0.47)	-298.5 (18.3)	-304.6 (17.9)	-308.1 (17.5)	-344.4 (17.5)	-287.0 (20.5)
I∏traPoor × rd 3	0.210 (0.41)	-217.1 (57.1)	-249.2 (52.1)	-257.3 (50.8)	-343.9 (40.7)	-233.6 (54.3)
Upfront \times rd 3	0.267 (0.44)	-786.6 (30.7)	-796.5 (30.4)	-794.1 (30.6)	-758.6 (40.1)	-657.1 (40.0)
WithGrace \times rd 3	0.173 (0.38)	682.0 (41.1)	692.9 (40.8)	705.1 (40.2)	914.3 (33.2)	704.9 (39.9)
InKind \times rd 3	0.089 (0.28)	362.8 (37.7)	286.0 (49.7)	280.6 (50.6)	95.9 (81.0)	312.1 (44.7)
Unfront \times UltraPoor \times rd 3	0.017 (0.18)	-252.8 (85.3)	-265.7 (84.7)	-278.5 (83.9)	-40.3 (97.8)	-209.7 (87.7)
WithGrace \times UltraPoor \times rd 3	0.012 (0.23)	287.4 (84.0)	297.2 (83.6)	310.3 (82.8)	367.9 (80.7)	426.1 (76.2)
InKind × UltraPoor × rd 3	0.006 (0.20)	320.9 (58.7)	211.7 (72.5)	204.4 (73.8)	59.7 (93.0)	239.8 (69.3)
rd 4	0.316 (0.47)	-729.0 (0.8)	-725.6 (0.9)	-729.8 (0.9)	-837.4 (0.4)	-747.5 (0.7)
UltraPoor × rd 4	0.202 (0.40)	-358.9 (45.2)	-368.4 (44.3)	-381.1 (42.9)	-595.8 (26.5)	-418.6 (38.2)
Upfront × rd 4	0.254 (0.44)	-1489.3 (8.4)	-1498.5 (8.3)	-1511.3 (8.2)	-1443.4 (13.6)	-1370.0 (11.4)
WithGrace × rd 4	0.161 (0.37)	421.2 (68.6)	403.5 (70.1)	415.5 (69.4)	494.0 (65.6)	371.3 (72.4)
InKind × rd 4	0.082 (0.27)	1222.5 (6.1)	1232.9 (6.3)	1213.9 (6.6)	1118.4 (6.7)	1271.8 (5.8)
Unfront \times UltraPoor \times rd 4	0.017 (0.17)	268.9 (87.0)	253.0 (87.8)	243.1 (88.3)	421.7 (81.3)	344.4 (83.3)
WithGrace \times UltraPoor \times rd 4	0.011 (0.23)	-1379.7 (44.3)	-1394.1 (44.0)	-1385.5 (44.3)	-1740.3 (38.4)	-1390.7 (43.7)
$InKind \times UltraPoor \times rd \ 4$	0.006 (0.20)	1581.2 (6.6)	1589.5 (6.6)	1565.8 (7.4)	1855.4 (9.2)	1604.9 (6.3)
HadCattle	0.218 (0.41)	(0.0)	(0.0)	(7.1)	139.7 (79.2)	(0.5)
HadCattle × rd 3	0.075 (0.26)				-131.8 (77.0)	
HadCattle × rd 4	0.068 (0.25)				-804.0 (33.0)	
FloodInRd1	0.487 (0.50)			-728.9 (8.5)	-953.4 (6.4)	-765.9 (9.6)
Head literate0	0.121 (0.33)			-693.8 (2.4)	-812.3 (4.2)	-708.4 (2.9)
productive asset value:	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.5)	0.4 (0.2)	0.4 (0.2)
HHsize0	4.306 (1.43)		(0.0)	66.7 (49.6)	68.7 (59.3)	46.6 (68.3)
$HadCattle \times Unfront$	0.014 (0.18)			(1210)	89.0 (94.8)	(00.0)
HadCattle \times Upfront \times rd 3	0.004 (0.11)				701.4 (53.2)	
$HadCattle \times Unfront \times rd 4$	0.005 (0.10)				21.4 (99.0)	
HadCattle × WithGrace	-0.002 (0.23)				2221.2 (28.2)	
HadCattle × WithGrace × rd 3	-0.000 (0.14)				-2893.1 (9.9)	
HadCattle × WithGrace × rd 4	-0.001 (0.13)				-4285.7 (19.0)	
HadCattle × InKind	-0.006 (0.19)				-1874.9 (24.0)	
HadCattle × InKind × rd 3	-0.001 (0.11)				1463.0 (31.1)	
HadCattle × InKind × rd 4	-0.003 (0.10)				3551.3 (21.3)	
NumCattle0	0.300 (0.66)		112		(21.3)	90.8 (79.8)
mean of dependent variable $T = 2$	(0.00)	1125 20	1125 20	1125 20	1125 17	1125 14

III.5.5 Narrow productive assets

Narrow productive assets are productive assets that are reported in all rounds. They are bees-box, brooder, cage incubator, country boat, dheki, ginning machine, gola (grain storage), hand pump, husking machine, jata, ladder(moi), sickle/dao/axe/spade, spray, weeder

```
Number of obs by Arm and attrition
          AttritIn
Arm
             2 3 4
                        9 Sum
 traditional 6 4 20 144 174
 large
            5 2 1 191 199
 large grace 22 3
                   3 170 198
            5 5 13 176 199
 cattle
           38 14 37 681 770
Number of obs by membership status and attrition
                   AttritIn
BStatus
                     2 3
                          4 9 Sum
                        6 8 575 597
                     8
 borrower
 pure saver
                     0
                        0
                            0
                              0
 individual rejection 9
                        4
                            1
                              75
                                  89
                    9 4
                           0 55
                                 6.8
 group rejection
 rejection by flood
                    12 0 28 0 40
                   38 14 37 705 794
 Sum
```

```
Error in eval(ei, envir): オブジェクト 'NeA1R8' がありません
```

```
[1] excl
[[1]]
NarrowPAssetAmount ~ dummyLarge + dummyLargeGrace + dummyCattle
ΓΓ2]]
NarrowPAssetAmount ~ dummyLarge + dummyLargeGrace + dummyCattle +
[[3]]
NarrowPAssetAmount \sim FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0
NarrowPAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyHadCows + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0 +
    dummyHadCows.Large + dummyHadCows.LargeGrace + dummyHadCows.Cattle
[[5]]
NarrowPAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0 +
   NumCows0
ГГ6]]
NarrowPAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyHadCows + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0 +
   NumCows0 + dummyHadCows.Large + dummyHadCows.LargeGrace +
    dummyHadCows.Cattle
[1] exclP
[[1]]
```

```
NarrowPAssetAmount ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
       dummyInKind.UltraPoor
[[2]]
NarrowPAssetAmount ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
       dummyInKind + NarrowPAssetAmount0 + dummyLargeSize.UltraPoor +
       dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
NarrowPAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
        dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
       NarrowPAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
       dummyInKind.UltraPoor
[[4]]
NarrowPAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
       dummyWithGrace + dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 +
       NarrowPAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
       dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
       dummyHadCows.InKind
[[5]]
NarrowPAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
        dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
       NarrowPAssetAmount0 + NumCows0 + dummyLargeSize.UltraPoor +
       dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[6]]
{\tt NarrowPAssetAmount} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyUltraPoor} \ + \ {\tt dummyLargeSize} 
       dummyWithGrace + dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 +
       NarrowPAssetAmount0 + NumCows0 + dummyLargeSize.UltraPoor +
       dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyHadCows.LargeSize +
       dummyHadCows.WithGrace + dummyHadCows.InKind
[1] excla
[[1]]
NarrowPAssetAmount ~ dummyLargeSize + dummyWithGrace + dummyInKind
ΓΓ2]]
NarrowPAssetAmount ~ dummyLargeSize + dummyWithGrace + dummyInKind +
       NarrowPAssetAmount0
[[3]]
NarrowPAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
       dummyInKind + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0
[[4]]
NarrowPAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0 +
       dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
ΓΓ5]]
NarrowPAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
       dummyInKind + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0 +
       NumCows0
[[6]]
NarrowPAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0
       NumCows0 + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
```

```
dummyHadCows.InKind
[1] exclT
[[1]]
NarrowPAssetAmount ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4
[[2]]
NarrowPAssetAmount ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + NarrowPAssetAmount0
[[3]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0
[[4]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NarrowPAssetAmount0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 +
    dummyHadCows.Cattle.Time4
[[5]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0 +
   NumCows0
[[6]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NarrowPAssetAmount0 + NumCows0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
    dummyHadCows.Cattle.Time4
[1] exclTa
NarrowPAssetAmount ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
[[2]]
NarrowPAssetAmount ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
```

dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +

```
dummyInKind.Time4 + NarrowPAssetAmount0
[[3]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0
[[4]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NarrowPAssetAmount0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
ΓΓ5]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0 +
   NumCows0
[[6]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NarrowPAssetAmount0 + NumCows0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[1] exclTPa
NarrowPAssetAmount ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[2]]
NarrowPAssetAmount ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    NarrowPAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[3]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
```

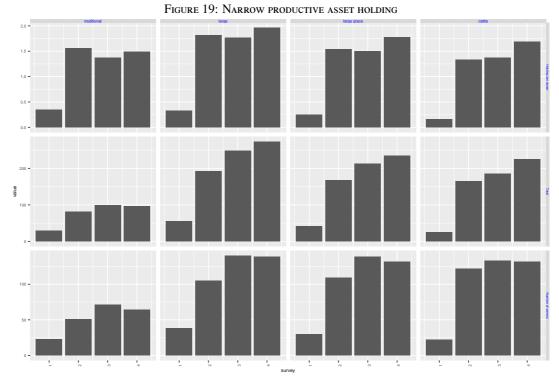
dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +

```
dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0 +
   dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor +
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[4]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
   dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
   dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
   NarrowPAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
   dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
   dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
   dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
   dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
   dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
   dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NarrowPAssetAmount0 +
   NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
   dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4
[[6]]
NarrowPAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
   dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
   dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
   NarrowPAssetAmount0 + NumCows0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```

Error in eval(expr, envir, enclos): オブジェクト 'NeAfig' がありません

Error in eval(expr, envir, enclos): オブジェクト 'NeAfig' がありません

Error in ggplot(data = NeAfig, aes(y = NarrowPAssetAmount + 1, fill = Arm, : オブジェクト 'NeAfig' がありません



Source: Survey data.

Note: Narrow productive assets are productive assets that are reported in all rounds. They are bees-box, brooder, cage incubator, country boat, dheki, ginning machine, gola (grain storage), hand pump, husking machine, jata, ladder(moi), sickle/dao/axe/spade, spray, weeder.

TABLE 58: ANCOVA ESTIMATION OF NARROW PRODUCTIVE ASSETS

mean/std	(1)	(2)	(3)	(4)	(5)
	567.5 (0.0)	233.9 (12.9)	134.3 (53.8)	157.2 (57.2)	99.7 (67.8)
0.021 (0.45)	418.8 (9.1)	375.3 (11.4)	363.5 (11.4)	406.3 (7.6)	399.6 (8.0)
0.002 (0.43)	337.9 (15.2)	145.1 (43.0)	154.6 (40.9)	157.7 (48.1)	159.0 (41.3)
0.017 (0.44)	151.2 (39.5)	144.9 (43.8)	153.4 (40.8)	168.2 (38.6)	249.8 (21.7)
0.218 (0.41)				110.4 (66.3)	
0.487 (0.50)			70.8 (67.3)	23.0 (90.3)	96.0 (59.0)
0.121 (0.33)			-279.1 (10.4)	-275.4 (17.3)	-300.6 (10.0)
1041.643 (2111.49)		0.4 (1.4)	0.4 (1.5)	0.5 (0.4)	0.5 (0.3)
4.306 (1.43)			23.0 (69.2)	-6.2 (93.2)	1.8 (97.7)
0.016 (0.22)				1082.5 (19.8)	
0.004 (0.20)				-114.0 (77.3)	
-0.006 (0.19)				7.2 (98.0)	
0.300 (0.66)					39.0 (77.8)
	796 20	796 20	796 20	796 17	796 14
	101 632	101 625	101 625	57 529	56 604
1718	0.002 2118	0.076 2097	0.076 2097	0.1 1718	0.092 1938
	0.021 (0.45) 0.002 (0.43) 0.017 (0.44) 0.218 (0.41) 0.487 (0.50) 0.121 (0.33) 1041.643 (2111.49) 4.306 (1.43) 0.016 (0.22) 0.004 (0.20) -0.006 (0.19) 0.300 (0.66)	567.5 (0.0) 0.021 418.8 (0.45) (9.1) 0.002 337.9 (0.43) (15.2) 0.017 151.2 (0.44) (39.5) 0.218 (0.41) 0.487 (0.50) 0.121 (0.33) 1041.643 (2111.49) 4.306 (1.43) 0.016 (0.22) 0.004 (0.22) 0.004 (0.20) -0.006 (0.19) 0.300 (0.66)	567.5 233.9 (0.0) (12.9)	134.3	1567.5

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Sample is continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 59: ANCOVA ESTIMATION OF NARROW PRODUCTIVE ASSETS BY ATTRIBUTES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		567.5 (0.0)	233.9 (12.9)	134.3 (53.8)	157.2 (57.2)	99.7 (67.8)
Unfront	0.040 (0.41)	418.8 (9.1)	375.3 (11.4)	363.5 (11.4)	406.3 (7.6)	399.6 (8.0)
WithGrace	0.019 (0.50)	-80.9 (80.4)	-230.2 (42.6)	-208.9 (45.0)	-248.6 (38.8)	-240.6 (38.5)
InKind	0.017 (0.44)	-186.7 (50.2)	-0.2 (99.9)	-1.3 (99.6)	10.4 (96.7)	90.8 (71.3)
HadCattle	0.218 (0.41)				110.4 (66.3)	
FloodInRd1	0.487 (0.50)			70.8 (67.3)	23.0 (90.3)	96.0 (59.0)
Head literate0	0.121 (0.33)			-279.1 (10.4)	-275.4 (17.3)	-300.6 (10.0)
Narrowproductive asset value ₁	1041.643 (2111.49)		0.4 (1.4)	0.4 (1.5)	0.5 (0.4)	0.5 (0.3)
HHsize0	4.306 (1.43)			23.0 (69.2)	-6.2 (93.2)	1.8 (97.7)
HadCattle × Unfront	0.014 (0.18)				1082.5 (19.8)	
HadCattle × WithGrace	-0.002 (0.23)				-1196.5 (19.4)	
HadCattle × InKind	-0.006 (0.19)				121.2 (79.0)	
NumCattle0	0.300 (0.66)					39.0 (77.8)
mean of dependent variable $T = 2$		796 20	796 20	796 20	796 17	796 14
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604
$ar{R}^2 N$	1718	0.002 2118	0.076 2097	0.076 2097	0.1 1718	0.092 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Sample is continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 60: ANCOVA estimation of Narrow productive assets by period

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		648.1 (0.0)	313.2 (7.4)	216.3 (38.4)	248.7 (43.1)	189.0 (49.0)
Large	0.021 (0.45)	478.7 (10.4)	436.4 (12.5)	425.1 (12.4)	445.0 (10.4)	444.5 (10.3)
LargeGrace	0.002 (0.43)	348.2 (17.4)	155.7 (40.9)	165.5 (38.8)	141.3 (53.6)	157.5 (42.9)
Cattle	0.017 (0.44)	117.7 (51.5)	121.8 (51.8)	132.2 (48.5)	147.4 (49.2)	205.9 (32.2)
rd 3	0.342 (0.47)	-1.3 (99.0)	-9.2 (93.0)	-10.9 (91.8)	-13.4 (90.6)	5.5 (95.9)
Large × rd 3	0.094 (0.29)	-69.8 (79.3)	-75.5 (77.9)	-75.6 (77.9)	18.2 (95.5)	1.8 (99.5)
LargeGrace × rd 3	0.084 (0.28)	234.2 (46.8)	246.7 (45.0)	244.1 (45.7)	424.3 (27.0)	324.8 (34.7)
Cattle \times rd 3	0.089 (0.28)	235.5 (31.6)	149.6 (55.3)	143.0 (57.4)	177.4 (45.7)	309.1 (22.0)
rd 4	0.316 (0.47)	-267.6 (5.0)	-262.7 (5.5)	-264.9 (5.4)	-311.0 (2.0)	-282.2 (4.1)
Large × rd 4	0.093 (0.29)	-547.6 (22.3)	-555.8 (21.9)	-557.5 (21.8)	-410.9 (36.8)	-463.2 (30.3)
LargeGrace × rd 4	0.079 (0.27)	-323.9 (31.2)	-338.6 (29.4)	-341.7 (29.3)	-200.5 (55.7)	-263.9 (41.6)
Cattle × rd 4	0.082 (0.27)	121.7 (63.2)	99.1 (70.5)	85.6 (74.8)	90.5 (72.0)	226.2 (38.7)
HadCattle	0.218 (0.41)				167.5 (55.0)	
HadCattle × rd 3	0.075 (0.26)				-104.0 (53.1)	
HadCattle × rd 4	0.068 (0.25)				-574.1 (20.5)	
FloodInRd1	0.487 (0.50)			69.0 (68.1)	22.4 (90.7)	95.9 (59.1)
Head literate0	0.121 (0.33)			-278.7 (10.6)	-273.3 (17.9)	-299.5 (10.2)
Narrowproductive asset value ₁	1041.643 (2111.49)		0.4 (1.4)	0.4 (1.5)	0.5 (0.4)	0.5 (0.3)
HHsize0	4.306 (1.43)			22.7 (69.7)	-6.3 (93.2)	2.1 (97.3)
HadCattle × Large	0.016 (0.22)				1203.8 (20.4)	
HadCattle \times Large \times rd 3	0.005 (0.13)				-259.0 (52.8)	
HadCattle × Large × rd 4	0.006 (0.13)				-1275.4 (31.4)	
HadCattle × LargeGrace	0.004 (0.20)				68.4 (87.9)	
HadCattle × LargeGrace × rd 3	0.001 (0.12)				-675.5 (15.8)	
HadCattle \times LargeGrace \times rd 4	0.002 (0.12)				-1445.6 (23.4)	
HadCattle × Cattle	-0.006 (0.19)				90.9 (78.1)	
HadCattle \times Cattle \times rd 3	-0.001 (0.11)				-576.2 (17.2)	
HadCattle \times Cattle \times rd 4	-0.003 (0.10)				-592.4 (15.3)	
NumCattle0	0.300 (0.66)					39.0 (77.8)
mean of dependent variable $T = 2$		796 20	796 20	796 20	796 17	796 14
$\begin{array}{c} T = 3 \\ T = 4 \end{array}$		101 632	101 625	101 625	57 529	56 604
$ar{R}^2 N$	1718	0.002 2118	0.076 2097	0.076 2097	0.098 1718	0.092 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsizeO is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or $N=1\times(T=2)+2\times(T=3)+3\times(T=4)$. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level. 121

TABLE 61: ANCOVA ESTIMATION OF NARROW PRODUCTIVE ASSETS BY ATTRIBUTES AND PERIOD

ABLE UI. AINCOVA ESTIMIA	ATION OF N	AKKOW PKC	DUCTIVE A	SSEIS DI	ALIKIDULES	AND PERIO
covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		648.1 (0.0)	313.2 (7.4)	216.3 (38.4)	248.7 (43.1)	189.0 (49.0)
Unfront	0.040 (0.41)	478.7 (10.4)	436.4 (12.5)	425.1 (12.4)	445.0 (10.4)	444.5 (10.3)
WithGrace	0.019 (0.50)	-130.5 (72.3)	-280.7 (38.5)	-259.6 (40.2)	-303.7 (32.6)	-287.0 (34.6)
InKind	0.017 (0.44)	-230.5 (42.1)	-33.9 (88.4)	-33.3 (88.2)	6.0 (98.0)	48.4 (83.6)
rd 3	0.342 (0.47)	-1.3 (99.0)	-9.2 (93.0)	-10.9 (91.8)	-13.4 (90.6)	5.5 (95.9)
Unfront \times rd 3	0.267 (0.44)	-69.8 (79.3)	-75.5 (77.9)	-75.6 (77.9)	18.2 (95.5)	1.8 (99.5)
WithGrace \times rd 3	0.173 (0.38)	304.0 (36.3)	322.2 (33.9)	319.7 (34.4)	406.1 (29.5)	323.0 (35.3)
InKind × rd 3	0.089 (0.28)	1.3 (99.7)	-97.1 (76.4)	-101.1 (75.4)	-246.9 (43.8)	-15.7 (96.2)
rd 4	0.316 (0.47)	-267.6 (5.0)	-262.7 (5.5)	-264.9 (5.4)	-311.0 (2.0)	-282.2 (4.1)
Unfront × rd 4	0.254 (0.44)	-547.6 (22.3)	-555.8 (21.9)	-557.5 (21.8)	-410.9 (36.8)	-463.2 (30.3)
WithGrace × rd 4	0.161 (0.37)	223.7 (63.6)	217.2 (64.7)	215.8 (64.9)	210.4 (64.9)	199.4 (67.5)
InKind × rd 4	0.082 (0.27)	445.5 (12.8)	437.7 (13.5)	427.3 (14.3)	291.1 (25.8)	490.1 (10.2)
HadCattle	0.218 (0.41)				167.5 (55.0)	
HadCattle × rd 3	0.075 (0.26)				-104.0 (53.1)	
HadCattle × rd 4	0.068 (0.25)				-574.1 (20.5)	
FloodInRd1	0.487 (0.50)			69.0 (68.1)	22.4 (90.7)	95.9 (59.1)
Head literate0	0.121 (0.33)			-278.7 (10.6)	-273.3 (17.9)	-299.5 (10.2)
Narrowproductive asset value ₁	1041.643 (2111.49)		0.4 (1.4)	0.4 (1.5)	0.5 (0.4)	0.5 (0.3)
HHsize0	4.306 (1.43)			22.7 (69.7)	-6.3 (93.2)	2.1 (97.3)
HadCattle × Unfront	0.014 (0.18)				1203.8 (20.4)	
HadCattle \times Upfront \times rd 3	0.004 (0.11)				-259.0 (52.8)	
HadCattle × Unfront × rd 4	0.005 (0.10)				-1275.4 (31.4)	
$HadCattle \times WithGrace$	-0.002 (0.23)				-1135.4 (27.4)	
HadCattle \times WithGrace \times rd 3	-0.000 (0.14)				-416.5 (41.6)	
$HadCattle \times WithGrace \times rd~4$	-0.001 (0.13)				-170.2 (92.1)	
HadCattle × InKind	-0.006 (0.19)				22.4 (96.5)	
HadCattle \times InKind \times rd 3	-0.001 (0.11)				99.4 (84.9)	
HadCattle × InKind × rd 4	-0.003 (0.10)				853.2 (48.6)	
NumCattle0	0.300 (0.66)					39.0 (77.8)
mean of dependent variable $T = 2$	· · · · /	796 20	796 20	796 20	796 17	796 14
T = 3 T = 4		101 632	101 625	101 625	57 529	56 604
$ar{R}^2 N$	1718	0.002 2118	0.076 2097	0.076 2097	0.098 1718	0.092 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsizeO is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or $N=1\times(T=2)+2\times(T=3)+3\times(T=4)$. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level. 122

Table 62: ANCOVA estimation of narrow productive assets by attributes, poverty status, and period

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)	,	685.6 (0.0)	361.4 (5.6)	279.4 (28.5)	333.2 (33.0)	258.0 (37.9)
Unfront	0.040 (0.41)	447.2 (13.3)	393.1 (17.0)	384.2 (16.8)	396.6 (17.1)	401.2 (15.1)
WithGrace	0.019 (0.50)	-101.1 (79.0)	-255.6 (45.9)	-238.7 (47.4)	-281.6 (41.2)	-268.6 (41.3)
InKind	0.017 (0.44)	-250.7 (42.2)	-49.7 (85.7)	-44.5 (86.8)	-5.2 (98.6)	35.8 (89.6)
UltraPoor	0.625 (0.48)	-132.5 (61.2)	-77.4 (76.4)	-90.6 (73.0)	-113.2 (69.9)	-76.1 (77.4)
Unfront × UltraPoor	0.051 (0.30)	-440 8 (50.9)	-496.5 (46.0)	-532.5 (41.4)	-533.2 (45.0)	-473.2 (46.9)
WithGrace × UltraPoor	0.036	-152.2	-132.6	-111.6	-194.2	-113.1
InKind × UltraPoor	(0.39)	(87.2)	(88.6) 40.5	(90.1)	(84.4) -19.2	(90.1)
rd 3	(0.35) 0.342	(88.5) -18.0	(95.8) -25.2	(98.4) -27.0	(98.3) -43.0	(96.0) -18.3
UltraPoor × rd 3	(0.47)	(86.2)	(81.3)	(80.0) -19.8	(72.0) -83.0	(86.8)
Upfront × rd 3	(0.41) 0.267	(93.9) -36.5	(90.8) -42.9	(91.1) -43.5	(67.3) 92.6	(98.0)
WithGrace × rd 3	(0.44) 0.173	(90.4) 276.3	(88.8) 293.0	(88.6) 290.5	(80.5)	(86.6) 290.6
InKind × rd 3	(0.38) 0.089	(38.1)	(35.5) -64.8	(36.0) -69.0	(32.7) -203.6	(37.6)
Unfront × UltraPoor × rd 3	(0.28) 0.017	(92.2) 158.1	(82.7) 149.5	(81.7) 145.2	(49.1) 372.3	(96.9) 259.4
WithGrace × UltraPoor × rd 3	(0.18) 0.012	(76.2) 443.3	(77.5) 453.9	(78.2) 454.8	(56.7) 701.7	(63.0) 490.0
InKind × UltraPoor × rd 3	0.23)	(39.9) -239.0	(39.2) -367.7	(39.1) -370.5	(19.7) -661.0	(36.3) -266.5
rd 4	(0.20) 0.316	(58.8) -277.7	(41.9) -273.0	(41.8) -275.5	(13.7) -333.6	(57.4) -299.2
UltraPoor × rd 4	(0.47) 0.202	(4.2) 85.2	(4.5) 82.5	(4.4) 83.8	(1.7) -37.9	(3.0)
Upfront × rd 4	(0.40) 0.254	(76.6) -505.2	(77.4) -509.0	(77.2) -510.8	(90.4) -334.8	(83.6) -396.3
WithGrace × rd 4	(0.44)	(27.3) 229.7	(27.1)	(27.1)	(49.7) 212.9	(39.4)
InKind × rd 4	(0.37)	(61.1) 438.1	(62.1) 429.0	(62.3) 418.3	(63.5) 302.5	(65.7) 480.3
Upfront × UltraPoor × rd 4	(0.27) 0.017	(10.6) 824.6	(11.3) 803.8	(12.1) 803.6	(19.6) 1074.8	(8.5) 961.2
WithGrace × UltraPoor × rd 4	(0.17) 0.011	(40.6) -649.3	(41.8) -651.7	(41.9) -648.7	(32.8)	(33.4)
	(0.23)	(52.1)	(52.2) 291.9	(52.3)	(58.2)	(50.0)
InKind × UltraPoor × rd 4	0.006 (0.20)	300.0 (55.5)	(57.4)	293.5 (57.6)	129.0 (83.4)	349.0 (51.5)
HadCattle	0.218 (0.41)				133.6 (64.1)	
HadCattle × rd 3	0.075 (0.26)				-51.7 (76.8)	
HadCattle × rd 4	0.068 (0.25)				-510.2 (26.2)	
FloodInRd1	0.487 (0.50)			51.1 (75.1)	9.5 (95.8)	81.1 (63.8)
Head literate0	0.121 (0.33)			-314.7 (8.7)	-314.9 (14.6)	-327.4 (9.1)
Narrownroductive asset values	1041.643 (2111.49)		0.4 (1.5)	0.4 (1.6)	0.5 (0.5)	0.5 (0.3)
HHsize0	4.306 (1.43)			22.2 (70.0)	$^{-7.0}_{(92.2)}$	1.7 (97.8)
HadCattle × Unfront	0.014 (0.18)				1297.3 (16.5)	
HadCattle \times Upfront \times rd 3	0.004 (0.11)				-416.8 (39.9)	
HadCattle \times Upfront \times rd 4	0.005 (0.10)				-1417.5 (25.2)	
HadCattle × WithGrace	-0.002 (0.23)				-1153.9 (26.7)	
HadCattle × WithGrace × rd 3	-0.000 (0.14)				-358.1 (44.1)	
HadCattle \times WithGrace \times rd 4	-0.001 (0.13)				-190.0 (91.1)	
HadCattle × InKind	-0.006 (0.19)				52.3 (92.8)	
HadCattle \times InKind \times rd 3	-0.001 (0.11)				44.2 (92.8)	
HadCattle × InKind × rd 4	-0.003 (0.10)				900.2 (48.2)	
NumCattle0	0.300 (0.66)		123		(10.2)	31.7 (82.2)
mean of dependent variable $T = 2$	(3.00)	796 20	796 20	796 20	796 17	796 14

III.5.6 Productive assets+livestock

```
Number of obs by Arm and attrition
          AttritIn
Arm
            2 3
                   4 9 Sum
           6 4 20 144 174
 traditional
            5 2 1 191 199
 large
 large grace 22 3 3 170 198
 cattle 5 5 13 176 199
           38 14 37 681 770
 Sum
Number of obs by membership status and attrition
                  AttritIn
BStatus
                     2
                       3
                           4 9 Sum
 borrower
                     8
                        6 8 575 597
 pure saver
                    0 0 0 0
 individual rejection 9 4 1 75 89
                    9 4 0 55 68
 group rejection
 rejection by flood
                       0 28
                              0 40
                    12
                          37 705 794
 Sum
                    38 14
```

Error in eval(ei, envir): オブジェクト 'NeA1R8' がありません

```
[1] excl
[[1]]
ProdValue ~ dummyLarge + dummyLargeGrace + dummyCattle
ProdValue ~ dummyLarge + dummyLargeGrace + dummyCattle + ProdValue0
[[3]]
ProdValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + ProdValue0
[[4]]
ProdValue \sim FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyHadCows + HHsize0 + HeadLiteracy0 + ProdValue0 + dummyHadCows.Large +
    dummyHadCows.LargeGrace + dummyHadCows.Cattle
[[5]]
ProdValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    HHsize0 + HeadLiteracy0 + NumCows0 + ProdValue0
[[6]]
ProdValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + ProdValue0 +
    dummyHadCows.Large + dummyHadCows.LargeGrace + dummyHadCows.Cattle
[1] exclP
[[1]]
ProdValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
ProdValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
```

```
dummyInKind + ProdValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[3]]
ProdValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + ProdValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[4]]
ProdValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + ProdValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
ProdValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + ProdValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[6]]
ProdValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 +
    ProdValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] excla
[[1]]
ProdValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
ProdValue ~ dummyLargeSize + dummyWithGrace + dummyInKind + ProdValue0
[[3]]
ProdValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + ProdValue0
[[4]]
ProdValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyHadCows + HHsize0 + HeadLiteracy0 + ProdValue0 + dummyHadCows.LargeSize +
    dummyHadCows.WithGrace + dummyHadCows.InKind
ProdValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + NumCows0 + ProdValue0
[[6]]
ProdValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + ProdValue0 +
    dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[1] exclT
[[1]]
ProdValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4
[[2]]
ProdValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
```

dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +

```
dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + ProdValue0
[[3]]
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + ProdValue0
[[4]]
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    ProdValue0 + dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
    dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
    dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[[5]]
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    ProdValue0
[[6]]
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NumCows0 + ProdValue0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
    dummyHadCows.Cattle.Time4
[1] exclTa
[[1]]
ProdValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
ProdValue \sim Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + ProdValue0
[[3]]
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + ProdValue0
[[4]]
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
```

dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +

```
ProdValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
      dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
       dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
       dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
      dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
      dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
      ProdValue0
[[6]]
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
      dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
      dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
      NumCows0 + ProdValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
      dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
      dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
      dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[1] exclTPa
[[1]]
ProdValue ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
      dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
      dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
      dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
       dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
       dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
       dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
      dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[2]]
ProdValue ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
      dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
      dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
      dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
      ProdValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
      dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
      dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
       dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
      dummyInKind.UltraPoor.Time4
[[3]]
{\tt ProdValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyUltraPoor} \ + \ {\tt dummyLargeSize} \ + \ {\tt time.4} \ + \ {\tt dummyUltraPoor} \ + \ {\tt dummyLargeSize} \ + \ {\tt time.4} \ + \ {\tt dummyUltraPoor} \ + \ {\tt dummyLargeSize} \ + \ {\tt time.4} \ + \ 
       dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
      dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
      dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
      HHsize0 + HeadLiteracy0 + ProdValue0 + dummyLargeSize.UltraPoor +
      dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.|Time3 +
       dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
       dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
      dummyInKind.UltraPoor.Time4
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
      dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
       dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
       dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
       dummyHadCows + HHsize0 + HeadLiteracy0 + ProdValue0 + dummyLargeSize.UltraPoor +
```

```
dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
   dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
   dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
   dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   HHsize0 + HeadLiteracy0 + NumCows0 + ProdValue0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
   dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4
[[6]]
ProdValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + ProdValue0 +
   dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor +
   dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4 +
    dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
    dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```

Error in subset(NeAfig, !is.na(Arm)): オブジェクト 'NeAfig' がありません

TABLE 63: ANCOVA ESTIMATION OF PRODUCTIVE AND LIVESTOCK ASSETS

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		15563.7 (0.0)	13100.4 (0.0)	5334.4 (4.0)	13085.9 (0.0)	8045.2 (0.4)	12887.7 (0.0)
Large	0.021 (0.45)	13961.4 (0.0)	12466.4 (0.0)	12331.6 (0.0)	9904.3 (0.0)	10515.4 (0.0)	9910.8 (0.0)
LargeGrace	0.002 (0.43)	8559.5 (0.2)	7242.1 (0.6)	7387.7 (0.4)	5547.8 (2.0)	5297.3 (3.5)	5168.8 (2.7)
Cattle	0.017 (0.44)	7030.3 (0.1)	6856.9 (0.1)	6934.0 (0.1)	4489.0 (1.9)	6017.3 (0.4)	4610.4 (1.6)
HadCattle	0.218 (0.41)				4013.0 (26.1)		7100.0 (12.0)
FloodInRd1	0.487 (0.50)			106.7 (94.4)	596.1 (73.0)	-142.5 (93.3)	591.5 (74.2)
Head literate0	0.121 (0.33)			-943.9 (63.8)	-1533.1 (46.3)	-2136.7 (30.7)	-1429.0 (49.6)
ProdValue()	7262.039 (13742.94)		0.5 (0.0)	0.5 (0.0)	0.3 (2.0)	1.1 (0.4)	1.1 (0.5)
HHsize0	4.306 (1.43)			1888.5 (0.0)	1519.5 (0.9)	1844.4 (0.1)	1385.4 (1.7)
HadCattle × Large	0.016 (0.22)				12282.4 (13.3)		12934.8 (11.9)
HadCattle × LargeGrace	0.004 (0.20)				2432.1 (63.1)		2340.6 (64.1)
HadCattle × Cattle	-0.006 (0.19)				3860.3 (43.5)		3972.2 (42.2)
NumCattle0	0.300 (0.66)					-13720.1 (12.2)	-18339.1 (5.5)
mean of dependent variable $T = 2$		23038 20	23038 20	23038 20	23038 17	23038 14	23038 17
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604	55 529
$ar{R}^2 N$	1718	0.046 2118	0.129 2097	0.141 2097	0.106 1718	0.125 1938	0.115 1714

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Sample is continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 64: ANCOVA ESTIMATION OF PRODUCTIVE AND LIVESTOCK ASSETS BY ATTRIBUTES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		15563.7 (0.0)	13100.4 (0.0)	5334.4 (4.0)	13085.9 (0.0)	8045.2 (0.4)	12887.7 (0.0)
Unfront	0.040 (0.41)	13961.4 (0.0)	12466.4 (0.0)	12331.6 (0.0)	9904.3 (0.0)	10515.4 (0.0)	9910.8 (0.0)
WithGrace	0.019 (0.50)	-5401.9 (13.8)	-5224.3 (9.9)	-4943.9 (11.9)	-4356.5 (14.8)	-5218.0 (11.5)	-4742.0 (12.6)
InKind	0.017 (0.44)	-1529.2 (56.1)	-385.2 (88.5)	-453.8 (85.8)	-1058.7 (64.2)	720.0 (77.2)	-558.4 (80.3)
HadCattle	0.218 (0.41)				4013.0 (26.1)		7100.0 (12.0)
FloodInRd1	0.487 (0.50)			106.7 (94.4)	596.1 (73.0)	-142.5 (93.3)	591.5 (74.2)
Head literate0	0.121 (0.33)			-943.9 (63.8)	-1533.1 (46.3)	-2136.7 (30.7)	-1429.0 (49.6)
ProdValue0	7262.039 (13742.94)		0.5 (0.0)	0.5 (0.0)	0.3 (2.0)	1.1 (0.4)	1.1 (0.5)
HHsize0	4.306 (1.43)			1888.5 (0.0)	1519.5 (0.9)	1844.4 (0.1)	1385.4 (1.7)
HadCattle × Unfront	0.014 (0.18)				12282.4 (13.3)		12934.8 (11.9)
HadCattle × WithGrace	-0.002 (0.23)				-9850.3 (21.9)		-10594.2 (18.6)
HadCattle × InKind	-0.006 (0.19)				1428.2 (75.3)		1631.6 (70.0)
NumCattle0	0.300 (0.66)					-13720.1 (12.2)	-18339.1 (5.5)
mean of dependent variable $T = 2$		23038 20	23038 20	23038 20	23038 17	23038 14	23038 17
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604	55 529
$ar{R}^2 N$	1718	0.046 2118	0.129 2097	0.141 2097	0.106 1718	0.125 1938	0.115 1714

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Sample is continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 65: ANCOVA ESTIMATION OF LIVESTOCK AND PRODUCTIVE ASSETS BY PERIOD

TABLE 03. AINCO	VI ESTIMA						
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		14420.6 (0.0)	11841.6 (0.0)	4005.4 (14.4)	10007.4 (0.1)	5794.2 (4.6)	9779.9 (0.2)
Large	0.021 (0.45)	14232.7 (0.0)	12706.2 (0.0)	12579.7 (0.0)	10230.5 (0.0)	10789.6 (0.0)	10203.8 (0.0)
LargeGrace	0.002 (0.43)	8475.5 (0.2)	7135.2 (0.5)	7270.7 (0.3)	5444.8 (1.7)	5213.2 (3.1)	5069.8 (2.5)
Cattle	0.017 (0.44)	7063.4 (0.1)	6828.7 (0.2)	6892.9 (0.1)	4395.0 (2.4)	5853.1 (0.5)	4521.3 (2.0)
rd 3	0.342 (0.47)	1011.9 (28.2)	1198.6 (19.8)	1232.8 (18.9)	3148.7 (0.2)	2610.8 (0.4)	3217.2 (0.2)
Large × rd 3	0.094 (0.29)	-2343.1 (42.2)	-2175.1 (45.8)	-2226.5 (45.0)	-3264.6 (35.2)	-2616.3 (39.1)	-3059.7 (38.4)
LargeGrace × rd 3	0.084 (0.28)	-401.3 (83.8)	-117.8 (95.2)	-79.4 (96.8)	-700.7 (77.2)	-331.0 (88.2)	-716.7 (76.8)
Cattle × rd 3	0.089 (0.28)	-1360.8 (57.1)	-1326.6 (56.7)	-1283.2 (58.1)	-815.8 (73.8)	-487.9 (81.2)	-843.0 (73.0)
rd 4	0.316 (0.47)	2208.3 (5.4)	2418.5 (3.7)	2473.8 (3.4)	5600.9 (0.0)	4082.8 (0.0)	5642.4 (0.0)
Large × rd 4	0.093 (0.29)	-832.8 (81.9)	-705.1 (84.6)	-754.0 (83.5)	-2453.6 (54.4)	-1260.0 (73.4)	-2184.1 (59.0)
LargeGrace × rd 4	0.079 (0.27)	1093.8 (61.4)	1019.8 (64.1)	1083.0 (62.0)	426.9 (87.6)	599.9 (80.7)	412.3 (88.0)
Cattle × rd 4	0.082 (0.27)	988.6 (70.8)	1653.0 (53.4)	1717.2 (51.5)	1179.7 (67.1)	2559.7 (29.8)	1097.4 (68.9)
HadCattle	0.218 (0.41)				4803.8 (17.4)		7901.7 (8.2)
HadCattle × rd 3	0.075 (0.26)				-4650.0 (2.6)		-4706.6 (2.3)
HadCattle × rd 4	0.068 (0.25)				-4965.5 (9.7)		-5180.3 (8.0)
FloodInRd1	0.487 (0.50)			103.0 (94.6)	599.3 (73.1)	-156.4 (92.7)	592.6 (74.2)
Head literate0	0.121 (0.33)			-875.6 (66.2)	-1510.2 (47.1)	-2060.1 (32.5)	-1401.3 (50.6)
ProdValue()	7262.039 (13742.94)		0.5 (0.0)	0.5 (0.0)	0.3 (2.0)	1.1 (0.4)	1.1 (0.5)
HHsize0	4.306 (1.43)			1897.6 (0.0)	1527.3 (0.8)	1852.3 (0.1)	1393.2 (1.6)
HadCattle × Large	0.016 (0.22)				11293.3 (14.7)		11981.0 (13.1)
HadCattle \times Large \times rd 3	0.005 (0.13)				6632.7 (24.7)		6292.2 (26.9)
HadCattle × Large × rd 4	0.006 (0.13)				6928.4 (42.4)		6797.2 (42.9)
HadCattle × LargeGrace	0.004 (0.20)				4373.9 (38.4)		4279.7 (39.7)
HadCattle × LargeGrace × rd 3	0.001 (0.12)				-9568.2 (9.3)		-9648.5 (9.0)
HadCattle × LargeGrace × rd 4	0.002 (0.12)				-11453.1 (15.5)		-11283.1 (16.0)
HadCattle × Cattle	-0.006 (0.19)				3396.8 (50.2)		3525.5 (48.7)
HadCattle \times Cattle \times rd 3	-0.001 (0.11)				4770.5 (30.7)		4704.9 (31.4)
$HadCattle \times Cattle \times rd 4$	-0.003 (0.10)				4092.8 (57.3)		3779.0 (59.2)
NumCattle0	0.300 (0.66)					-13688.1 (12.4)	-18274.2 (5.8)
mean of dependent variable $T = 2$		23038 20	23038 20	23038 20	23038 17	23038 14	23038 17
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604	55 529
$ar{R}^2 N$	1718	0.045 2118	0.128 2097	0.14 2097	0.114 1718	0.128 1938	0.123 1714

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or $N=1\times(T=2)+2\times(T=3)+3\times(T=4)$. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level. 131

TABLE 66: ANCOVA ESTIMATION OF LIVESTOCK AND PRODUCTIVE ASSETS BY ATTRIBUTES AND PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		14420.6 (0.0)	11841.6 (0.0)	4005.4 (14.4)	10007.4 (0.1)	5794.2 (4.6)	9779.9 (0.2)
Unfront	0.040 (0.41)	14232.7 (0.0)	12706.2 (0.0)	12579.7 (0.0)	10230.5 (0.0)	10789.6 (0.0)	10203.8 (0.0)
WithGrace	0.019 (0.50)	-5757.2 (10.4)	-5571.0 (6.9)	-5309.0 (8.3)	-4785.7 (10.4)	-5576.4 (8.1)	-5134.0 (9.1)
InKind	0.017 (0.44)	-1412.1 (57.6)	-306.5 (90.5)	-377.8 (87.7)	-1049.9 (63.6)	639.9 (79.1)	-548.5 (80.1)
rd 3	0.342 (0.47)	1011.9 (28.2)	1198.6 (19.8)	1232.8 (18.9)	3148.7 (0.2)	2610.8 (0.4)	3217.2 (0.2)
Unfront × rd 3	0.267 (0.44)	-2343.1 (42.2)	-2175.1 (45.8)	-2226.5 (45.0)	-3264.6 (35.2)	-2616.3 (39.1)	-3059.7 (38.4)
WithGrace × rd 3	0.173 (0.38)	1941.9 (49.3)	2057.3 (46.8)	2147.2 (45.2)	2563.9 (41.7)	2285.4 (44.1)	2343.0 (45.9)
InKind × rd 3	0.089 (0.28)	-959.6 (67.6)	-1208.8 (58.4)	-1203.8 (59.0)	-115.1 (95.2)	-156.9 (93.6)	-126.4 (94.8)
rd 4	0.316 (0.47)	2208.3 (5.4)	2418.5 (3.7)	2473.8 (3.4)	5600.9 (0.0)	4082.8 (0.0)	5642.4 (0.0)
Unfront × rd 4	0.254 (0.44)	-832.8 (81.9)	-705.1 (84.6)	-754.0 (83.5)	-2453.6 (54.4)	-1260.0 (73.4)	-2184.1 (59.0)
WithGrace × rd 4	0.161 (0.37)	1926.6 (59.7)	1724.8 (64.0)	1837.0 (61.9)	2880.5 (45.5)	1859.8 (62.1)	2596.4 (50.3)
InKind × rd 4	0.082 (0.27)	-105.2 (96.8)	633.2 (81.8)	634.3 (81.8)	752.9 (76.4)	1959.8 (44.3)	685.1 (78.4)
HadCattle	0.218 (0.41)				4803.8 (17.4)		7901.7 (8.2)
HadCattle × rd 3	0.075 (0.26)				-4650.0 (2.6)		-4706.6 (2.3)
HadCattle × rd 4	0.068 (0.25)				-4965.5 (9.7)		-5180.3 (8.0)
FloodInRd1	0.487 (0.50)			103.0 (94.6)	599.3 (73.1)	-156.4 (92.7)	592.6 (74.2)
Head literate0	0.121 (0.33)			-875.6 (66.2)	-1510.2 (47.1)	-2060.1 (32.5)	-1401.3 (50.6)
ProdValue()	7262.039 (13742.94)		0.5 (0.0)	0.5 (0.0)	0.3 (2.0)	1.1 (0.4)	1.1 (0.5)
HHsize0	4.306 (1.43)			1897.6 (0.0)	1527.3 (0.8)	1852.3 (0.1)	1393.2 (1.6)
HadCattle × Unfront	0.014 (0.18)				11293.3 (14.7)		11981.0 (13.1)
HadCattle × Upfront × rd 3	0.004 (0.11)				6632.7 (24.7)		6292.2 (26.9)
HadCattle × Unfront × rd 4	0.005 (0.10)				6928.4 (42.4)		6797.2 (42.9)
HadCattle × WithGrace	-0.002 (0.23)				-6919.5 (35.4)		-7701.2 (30.4)
HadCattle × WithGrace × rd 3	-0.000 (0.14)				-16200.9 (1.8)		-15940.7 (1.9)
HadCattle × WithGrace × rd 4	-0.001 (0.13)				-18381.5 (5.0)		-18080.3 (5.3)
HadCattle × InKind	-0.006 (0.19)				-977.0 (82.4)		-754.3 (85.6)
HadCattle × InKind × rd 3	-0.001 (0.11)				14338.7 (1.8)		14353.4 (1.8)
HadCattle × InKind × rd 4	-0.003 (0.10)				15545.9 (5.7)		15062.1 (6.2)
NumCattle0	0.300 (0.66)					-13688.1 (12.4)	-18274.2 (5.8)
mean of dependent variable $T = 2$		23038 20	23038 20	23038 20	23038 17	23038 14	23038 17
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604	55 529
$ar{R}^2 \ N$	1718	0.045 2118	0.128 2097	0.14 2097	0.114 1718	0.128 1938	0.123 1714

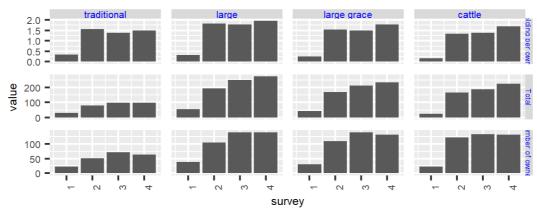
Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsizeO is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or $N=1\times(T=2)+2\times(T=3)+3\times(T=4)$. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level. 132

Table 67: ANCOVA estimation of livestock and productive assets by attributes, poverty status, and period $\frac{1}{2}$

וכ	PERIOD							
	covariates	mean/std	(1) 14401.0	(2)	(3) 3754.5	(4) 9723.0	(5) 5638.5	(6) 9498.6
	(Intercept)	0.040	(0.0)	11633.4 (0.0)	(18.5)	(0.2)	(5.8)	(0.3)
	Unfront	0.040 (0.41)	14266.1 (0.0)	12870.8 (0.0)	12729.5 (0.0)	10490.9 (0.0)	10845.2 (0.0)	10467.4 (0.0)
	WithGrace	0.019 (0.50)	-5649.0 (10.0)	-5521.7 (6.0)	-5294.4 (7.2)	-5076.1 (7.5)	-5604.3 (7.0)	-5430.3 (6.6)
	InKind	0.017 (0.44)	-1456.2 (55.7)	-270.5 (91.5)	-305.4 (90.0)	-826.6 (70.8)	717.7 (76.5)	-328.0 (88.0)
	UltraPoor	0.625 (0.48)	-2493.8 (8.5)	-2552.4 (8.5)	-2522.4 (9.8)	-2488.8 (12.6)	-2058.7 (19.9)	-2437.5 (13.7)
	Unfront × UltraPoor	0.051 (0.30)	-5914.9 (22.1)	-4590.9 (32.8)	-5367.9 (28.0)	-7581.5 (16.8)	-6178.3 (24.2)	-7447.9 (17.6)
	WithGrace × UltraPoor	0.036 (0.39)	5256.3 (26.2)	6138.7 (19.4)	6921.7 (16.0)	10587.3 (4.2)	7418.7 (14.5)	10554.8 (4.8)
	InKind × UltraPoor	0.019 (0.35)	-179.0 (95.2)	-922.6 (78.7)	-944.2 (78.0)	-2040.5 (53.6)	-606.9 (85.9)	-2215.4 (51.9)
	rd 3	0.342 (0.47)	976.8 (29.6)	1195.3 (19.7)	1234.3 (18.7)	3089.4 (0.2)	2551.8 (0.5)	3159.8 (0.2)
	UltraPoor × rd 3	0.210 (0.41)	-481.6 (79.2)	-643.6 (72.5)	-652.2 (72.3)	-335.7 (86.8)	-69.0 (97.0)	-345.1 (86.5)
	Upfront × rd 3	0.267	-1998.1	-1871.1	-1937.9	-2942.8 (38.8)	-2216.4	-2715.2
	WithGrace × rd 3	(0.44) 0.173 (0.38)	(47.8) 2243.3 (43.0)	(50.9) 2415.7	(49.6) 2513.5	2951.4	(45.0) 2557.6	(42.7) 2721.6
	InKind × rd 3	0.089	(43.0) -1281.3	(39.7) -1584.2	(38.2) -1583.3	(34.8)	(38.8) -468.2	(38.8) -491.0
	Unfront × UltraPoor × rd 3	(0.28) 0.017	(59.3) 5637.5	(49.4) 5130.8	(49.9) 5145.9	(81.6) 5677.0	(82.3) 5733.3	(80.9) 5768.7
	WithGrace × UltraPoor × rd 3	(0.18) 0.012	(29.6) -6356.8	(33.8) -6644.8	(33.7) -6835.7	(36.5) -6518.0	(29.7) -5979.9	(36.1) -6582.2
	InKind × UltraPoor × rd 3	0.006	(30.6)	(28.5) 4892.8	(27.3) 4731.6	(33.3)	(33.9) 5787.7	(33.1) 6235.0
	rd 4	(0.20) 0.316	(33.1) 2155.4	(31.5) 2438.0	(33.3) 2494.8	(21.5) 5510.9	(22.6) 3998.5	(21.0) 5554.3
	UltraPoor × rd 4	(0.47) 0.202	(5.3)	(3.3)	(2.9)	(0.0) -87.8	(0.0)	(0.0)
		(0.40)	(79.1) -471.5	(97.6)	(97.0)	(97.4)	(79.1)	(99.9)
	Upfront × rd 4	0.254 (0.44)	(89.2)	-454.0 (89.6)	-507.4 (88.3)	-2034.2 (59.8)	-811.8 (81.9)	-1761.2 (65.0)
	WithGrace × rd 4	0.161 (0.37)	2007.6 (56.8)	1844.3 (60.6)	1958.7 (58.4)	3052.6 (41.2)	1907.5 (60.0)	2769.9 (46.0)
	InKind × rd 4	0.082 (0.27)	-171.6 (94.9)	611.6 (82.9)	604.4 (83.2)	639.2 (80.2)	1879.7 (47.9)	552.2 (82.8)
	Unfront \times UltraPoor \times rd 4	0.017 (0.17)	10244.2 (13.6)	9570.9 (15.9)	9621.6 (15.5)	11557.7 (18.1)	11336.8 (11.3)	11533.9 (18.4)
	WithGrace \times UltraPoor \times rd 4	0.011 (0.23)	-7758.9 (29.6)	-7982.9 (28.6)	-8190.7 (27.4)	-6882.7 (41.4)	-7485.9 (31.2)	-6994.9 (40.9)
	$InKind \times UltraPoor \times rd \ 4$	0.006 (0.20)	1739.8 (73.6)	342.8 (95.3)	78.8 (98.9)	1266.9 (82.9)	1104.0 (84.5)	1649.6 (77.7)
	HadCattle	0.218 (0.41)				4489.1 (20.5)		7563.7 (9.9)
	HadCattle × rd 3	0.075 (0.26)				-4454 0 (3.7)		-4511.2 (3.4)
	HadCattle \times rd 4	0.068 (0.25)				-4501.4 (13.3)		-4727.8 (11.1)
	FloodInRd1	0.487 (0.50)			29.2 (98.5)	355.9 (84.0)	-257.9 (88.1)	366.1 (84.1)
	Head literate0	0.121 (0.33)			-1189.9 (56.0)	-1933.6 (34.6)	-2321.0 (27.6)	-1777.2 (38.9)
	ProdValue()	7262.039 (13742.94)		0.5 (0.0)	0.5 (0.0)	0.3 (1.8)	1.1 (0.4)	1.1 (0.4)
	HHsize0	4.306 (1.43)		(515)	1928.9 (0.0)	1608.0 (0.5)	1896.5 (0.1)	1472.4 (1.0)
	HadCattle × Unfront	0.014 (0.18)			(0.0)	10435.3 (19.3)	(0.1)	11117.8 (17.1)
	HadCattle × Upfront × rd 3	0.004 (0.11)				6306.5 (27.8)		5930.8 (30.5)
	HadCattle × Unfront × rd 4	0.005 (0.10)				6233.8 (46.5)		6100.3 (47.1)
	HadCattle × WithGrace	-0.002 (0.23)				-6154.7 (41.8)		-6921.5 (36.7)
	HadCattle × WithGrace × rd 3	-0.000 (0.14)				-16995 8 (1.3)		-16720.1 (1.4)
	HadCattle × WithGrace × rd 4	-0.001 (0.13)				-19088.4 (3.8)		-18784.2 (4.1)
	HadCattle × InKind	-0.006 (0.19)				-1103.6 (80.1)		-901.6 (82.9)
	HadCattle × InKind × rd 3	-0.001 (0.11)				14819.5 (1.8)		14840.7 (1.8)
	HadCattle × InKind × rd 4	-0.003 (0.10)				15913.8 (5.7)		15428.6 (6.3)
	NumCattle0	0.300 (0.66)		133		(3.1)	-13650.7 (12.3)	-18058.6 (5.9)
	mean of dependent variable $T = 2$	(0.00)	23038 20	23038 20	23038 20	23038 17	23038	23038 17
	1 – 2		20	20	20	1/	14	1 /

FIGURE 20: LIVESTOCK AND PRODUCTIVE ASSET HOLDING



Source: Survey data.

Note:

III.5.7 Broad net assets: Broad assets+Livestock-GUK Debt-Other Debts Broad net assets = Broad assets + net saving - debt to GUK - debts to relatives and money lenders.

```
Number of obs by Arm and attrition
            AttritIn
Arm
              2
                  3
                      4
                         9 Sum
 traditional
              6
                  4 20 144 174
                 2
              5
                      1 191 199
 large
 large grace 22 3
                     3 170 198
 cattle
              5 5 13 176 199
 Sum
             38 14 37 681 770
Number of obs by membership status and attrition
                     AttritIn
BStatus
                       2
                               4
                                   9 Sum
                           3
 borrower
                       8
                           6
                               8 575 597
 pure saver
                       0
 individual rejection
                       9
                               1
                                  75
                                     89
                           4
                       9
 group rejection
                               0
                                 55 68
                           4
 rejection by flood
                      12
                           0
                              28
                                  0
                                     40
                      38
                          14
                              37 705 794
 Sum
```

Error in eval(ei, envir): オブジェクト 'NeA1R8' がありません

```
dummyHadCows + HHsize0 + HeadLiteracy0 + BroadNetValue0
 [[5]]
BroadNetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
                      HHsize0 + HeadLiteracy0 + NumCows0 + BroadNetValue0
 [[6]]
{\tt BroadNetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt dummy
                       dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + BroadNetValue0 +
                       dummyHadCows.Large + dummyHadCows.LargeGrace + dummyHadCows.Cattle
 [1] exclP
 [[1]]
BroadNetValue ~ dummyLarge + dummyLargeGrace + dummyCattle +
                       dummyUltraPoor
BroadNetValue ~ dummyLarge + dummyLargeGrace + dummyCattle +
                       dummyUltraPoor + BroadNetValue0
 [[3]]
{\tt BroadNetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt dummy
                        dummyUltraPoor + HHsize0 + HeadLiteracy0 + BroadNetValue0
 [[4]]
 {\tt BroadNetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\
                        dummyUltraPoor + dummyHadCows + HHsize0 + HeadLiteracy0 +
                       BroadNetValue0
BroadNetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
                       dummyUltraPoor + HHsize0 + HeadLiteracy0 + NumCows0 + BroadNetValue0
 [[6]]
BroadNetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
                       dummyUltraPoor + dummyHadCows + HHsize0 + HeadLiteracy0 +
                       NumCows0 + BroadNetValue0 + dummyHadCows.Large + dummyHadCows.LargeGrace +
                       dummyHadCows.Cattle
 [1] excla
 \Gamma\Gamma111
BroadNetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
 [[2]]
{\tt BroadNetValue} \ \sim \ {\tt dummyLargeSize} \ + \ {\tt dummyWithGrace} \ + \ {\tt dummyInKind} \ + \\
                       BroadNetValue0
 [[3]]
{\tt BroadNetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLargeSize} \ + \ {\tt dummyWithGrace} \ + \
                       dummyInKind + HHsize0 + HeadLiteracy0 + BroadNetValue0
BroadNetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
                       dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + BroadNetValue0
{\tt BroadNetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLargeSize} \ + \ {\tt dummyWithGrace} \ + \
                       dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + BroadNetValue0
BroadNetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
```

```
dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 +
    BroadNetValue0 + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] exclT
[[1]]
BroadNetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4
[[2]]
BroadNetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + BroadNetValue0
[[3]]
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + BroadNetValue0
[[4]]
BroadNetValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    BroadNetValue0
[[5]]
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    BroadNetValue0
[[6]]
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
   NumCows0 + BroadNetValue0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 +
    dummyHadCows.Cattle.Time4
[1] exclTa
[[1]]
BroadNetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
BroadNetValue \sim Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + BroadNetValue0
```

```
[[3]]
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + BroadNetValue0
[[4]]
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    BroadNetValue0
[[5]]
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    BroadNetValue0
ΓΓ6]]
{\tt BroadNetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLargeSize} \ + \\
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NumCows0 + BroadNetValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[1] exclTP
[[1]]
BroadNetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[2]]
BroadNetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    BroadNetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    HHsize0 + HeadLiteracy0 + BroadNetValue0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4
```

```
ΓΓ4]]
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    dummvHadCows + HHsize0 + HeadLiteracy0 + BroadNetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    HHsize0 + HeadLiteracy0 + NumCows0 + BroadNetValue0 + dummyLarge.UltraPoor
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummvCattle.UltraPoor.Time4
[[6]]
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + BroadNetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
    dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
    dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[1] exclTPa
[[1]]
BroadNetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyUltraPoor.Time3 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
    dummyUltraPoor.Time4
[[2]]
BroadNetValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyUltraPoor.Time3 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
    dummyUltraPoor.Time4 + BroadNetValue0
BroadNetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyUltraPoor.Time3 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
    dummyUltraPoor.Time4 + HHsize0 + HeadLiteracy0 + BroadNetValue0
[[4]]
BroadNetValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLargeGrace.Time3 + dummyCattle.Time3 +
```

dummyUltraPoor.Time3 + dummyLargeGrace.Time4 + dummyCattle.Time4 +

```
[[5]]
BroadNetValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
        dummyCattle + dummyUltraPoor + dummyLargeGrace.Time3 + dummyCattle.Time3 +
        dummyUltraPoor.Time3 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
        dummyUltraPoor.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
       BroadNetValue0
[[6]]
{\tt BroadNetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyLargeGr
        dummyCattle + dummyUltraPoor + dummyLargeGrace.Time3 + dummyCattle.Time3 +
        dummyUltraPoor.Time3 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
        dummyUltraPoor.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
        NumCows0 + BroadNetValue0 + dummyHadCows.Large + dummyHadCows.Time3 +
        dummyHadCows.Time4 + dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
        dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
        dummyHadCows.Cattle.Time4
[1] excl
[[1]]
Net2Value ~ dummyLarge + dummyLargeGrace + dummyCattle
[[2]]
Net2Value ~ dummyLarge + dummyLargeGrace + dummyCattle + Net2Value0
[[3]]
Net2Value ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
       HHsize0 + HeadLiteracy0 + Net2Value0
[[4]]
Net2Value ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
        dummyHadCows + HHsize0 + HeadLiteracy0 + Net2Value0 + dummyHadCows.Large +
        dummyHadCows.LargeGrace + dummyHadCows.Cattle
Net2Value ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
       HHsize0 + HeadLiteracy0 + NumCows0 + Net2Value0
[[6]]
Net2Value \sim FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
        dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + Net2Value0 +
        dummyHadCows.Large + dummyHadCows.LargeGrace + dummyHadCows.Cattle
[1] exclP
ΓΓ177
Net2Value ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
        dummyInKind.UltraPoor
[[2]]
Net2Value ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + Net2Value0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
        dummyInKind.UltraPoor
[[3]]
Net2Value ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + HHsize0 + HeadLiteracy0 + Net2Value0 + dummyLargeSize.UltraPoor +
        dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
```

dummyUltraPoor.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +

BroadNetValue0

```
[[4]]
Net2Value ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + Net2Value0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
    dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
Net2Value ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + Net2Value0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[6]]
Net2Value ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 +
    Net2Value0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] excla
[[1]]
Net2Value ~ dummyLargeSize + dummyWithGrace + dummyInKind
Net2Value ~ dummyLargeSize + dummyWithGrace + dummyInKind + Net2Value0
Net2Value ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + Net2Value0
Net2Value ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyHadCows + HHsize0 + HeadLiteracy0 + Net2Value0 + dummyHadCows.LargeSize +
    dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
Net2Value ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + NumCows0 + Net2Value0
Net2Value ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + Net2Value0 +
    dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[1] exclT
[[1]]
Net2Value ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4
[[2]]
Net2Value ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + Net2Value0
[[3]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
```

dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + Net2Value0

```
[[4]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    Net2Value0 + dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
    dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
    dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[[5]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    Net2Value0
ГГ6]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
   NumCows0 + Net2Value0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 +
    dummyHadCows.Cattle.Time4
[1] exclTa
[[1]]
Net2Value ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
Net2Value ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + Net2Value0
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + Net2Value0
[[4]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    Net2Value0 + dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
    dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
```

```
dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    Net2Value0
[[6]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NumCows0 + Net2Value0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[1] exclTP
[[1]]
Net2Value ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[2]]
Net2Value ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    Net2Value0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[3]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    HHsize0 + HeadLiteracy0 + Net2Value0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4
[[4]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    dummyHadCows + HHsize0 + HeadLiteracy0 + Net2Value0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 +
    dummyHadCows.Cattle.Time4
```

```
[[5]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   HHsize0 + HeadLiteracy0 + NumCows0 + Net2Value0 + dummyLarge.UltraPoor +
   dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
   dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
   dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
   dummyCattle.UltraPoor.Time4
[[6]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + Net2Value0 +
   dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
   dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
   dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
   dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
   dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
   dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
   dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[1] exclTPa
[[1]]
Net2Value ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
   dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
   dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[2]]
Net2Value ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   Net2Value0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4
[[3]]
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   HHsize0 + HeadLiteracy0 + Net2Value0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
```

Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +

```
dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyHadCows + HHsize0 + HeadLiteracy0 + Net2Value0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    HHsize0 + HeadLiteracy0 + NumCows0 + Net2Value0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
Net2Value ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + Net2Value0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4 +
    dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
    dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
Error in subset(NeAfig, !is.na(Arm)): オブジェクト
                                                 'NeAfig' がありません
Error in subset(d2, tee == 2 & 0 <= BroadNetValue & BroadNetValue < 100000): オ
         'd2' がありません
ブジェクト
Error in subset(NeAfig, !is.na(Arm)): オブジェクト 'NeAfig' がありません
Error in eval(expr, envir, enclos): オブジェクト 'd2' がありません
Error in ggplot(data = d2): オブジェクト 'd2' がありません
Error in eval(expr, envir, enclos): オブジェクト
                                              'NeAFig' がありません
Error in reshape(assC[tee == i | tee == j, ], direction = "wide", idvar = c("hhid", : オ
ブジェクト
         'assC' がありません
Error in rbindlist(list(a12, a13, a14, a23, a24, a34), use.names = F): オブジェク
ト 'a12' がありません
```

Error in is.data.frame(x): オブジェクト

'd2W' がありません

```
Error in eval(expr, envir, enclos): オブジェクト 'd2W' がありません
```

Error in ggplot(data = d2W, aes(x = NetValue.before, y = NetValue.after, : オブジュント 'd2W' がありません

```
Error in `combine_vars()`:
! At least one layer must contain all faceting variables: `before`, `after`.
* Plot is missing `before`, `after`
* Layer 1 is missing `before`, `after`
* Layer 2 is missing `before`, `after`
* Layer 3 is missing `before`, `after`
```

```
Error in `combine_vars()`:
! At least one layer must contain all faceting variables: `before`, `after`.
* Plot is missing `before`, `after`
* Layer 1 is missing `before`, `after`
* Layer 2 is missing `before`, `after`
* Layer 3 is missing `before`, `after`
```

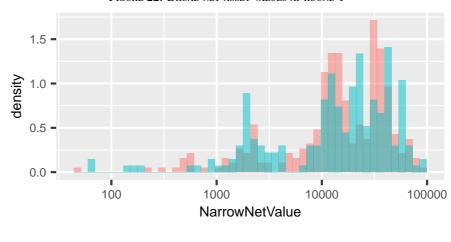
FIGURE 21: TOTAL AND BROAD NET ASSET VALUES

Source: Survey data.

Note: Top panel shows total gross asset values. Bottom panel shows total broad net asset values = total gross broad asset values - debt outstanding. Debt outstanding takes the value of the month immediately after the respective survey round interview.

povertystatus 😑 ultra poor 🖨 moderately poo

Figure 22: Broad net asset values at round 1

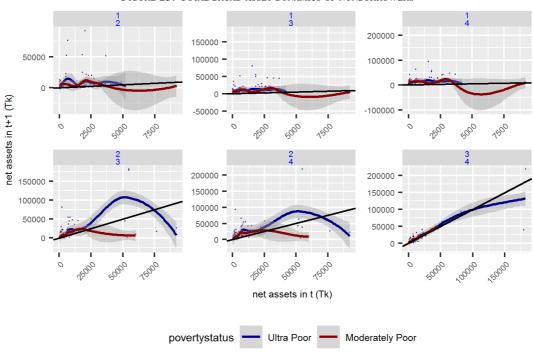


povertystatus ■ ultra poor ■ moderately poor

Source: Survey data.

Note: Broad net asset values = total gross broad asset values - debt outstanding. Debt outstanding takes the value of the month immediately after the respective survey round interview.

FIGURE 23: TOTAL BROAD ASSET DYNAMICS OF NONBORROWERS



Source: Survey data.

Note: Only for nonborrowers. Scatter plots contrast t vs. t + 1 comparison where t and t + 1 are given in strip ribbons of each panel.

TABLE 68: ANCOVA ESTIMATION OF BROAD NET ASSETS

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		14585.8 (0.0)	11444.9 (0.0)	4940.3 (22.1)	14751.7 (0.1)	9090.1 (3.4)	13716.5 (0.3)
Large	0.048 (0.46)	14065.9 (0.0)	14591.9 (0.0)	14384.3 (0.0)	7238.2 (4.5)	11311.1 (0.7)	7314.8 (4.7)
LargeGrace	0.006 (0.43)	7649.2 (1.2)	7041.8 (5.6)	7234.6 (4.6)	2349.8 (45.7)	3847.5 (26.5)	2182.4 (49.8)
Cattle	0.009 (0.44)	6883.4 (0.2)	6589.3 (2.4)	6703.6 (2.1)	1419.3 (58.7)	4083.1 (11.7)	1492.2 (56.3)
HadCattle	0.265 (0.44)				6968.8 (25.6)		9519.6 (14.5)
FloodInRd1	0.414 (0.49)			302.7 (88.7)	1888.4 (42.2)	429.3 (85.9)	2083.2 (39.9)
Head literate0	0.149 (0.36)			-670.1 (80.6)	-1730.8 (55.9)	-2351.7 (40.7)	-1752.8 (55.7)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (36.8)	0.6 (4.8)	0.7 (3.8)
HHsize0	4.538 (1.35)			1464.3 (6.2)	1291.8 (16.8)	1546.9 (8.1)	1218.4 (19.1)
HadCattle × Large	0.024 (0.25)				18150.2 (10.2)		18479.7 (9.5)
HadCattle × LargeGrace	0.009 (0.23)				2418.7 (71.1)		3246.7 (61.0)
HadCattle × Cattle	-0.012 (0.21)				10713.3 (9.1)		10679.0 (8.0)
NumCattle0	0.380 (0.73)					-3331.3 (62.1)	-12731.1 (13.5)
mean of dependent variable $T = 2$		21897 42	21897 13	21897 13	21897 13	21897 10	21897 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.041 2017	0.126 1306	0.13 1306	0.088 1070	0.091 1176	0.09 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 69: ANCOVA ESTIMATION OF BROAD NET ASSETS BY ATTRIBUTES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		14585.8 (0.0)	11444.9 (0.0)	4940.3 (22.1)	14751.7 (0.1)	9090.1 (3.4)	13716.5 (0.3)
Unfront	0.063 (0.39)	14065.9 (0.0)	14591.9 (0.0)	14384.3 (0.0)	7238.2 (4.5)	11311.1 (0.7)	7314.8 (4.7)
WithGrace	0.014 (0.50)	-6416.7 (8.5)	-7550.1 (6.6)	-7149.7 (9.0)	-4888.4 (19.3)	-7463.6 (10.2)	-5132.5 (19.1)
InKind	0.009 (0.44)	-765.8 (77.4)	-452.6 (88.3)	-530.9 (85.8)	-930.5 (73.3)	235.7 (93.9)	-690.1 (80.6)
HadCattle	0.265 (0.44)				6968.8 (25.6)		9519.6 (14.5)
FloodInRd1	0.414 (0.49)			302.7 (88.7)	1888.4 (42.2)	429.3 (85.9)	2083.2 (39.9)
Head literate0	0.149 (0.36)			-670.1 (80.6)	-1730.8 (55.9)	-2351.7 (40.7)	-1752.8 (55.7)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (36.8)	0.6 (4.8)	0.7 (3.8)
HHsize0	4.538 (1.35)			1464.3 (6.2)	1291.8 (16.8)	1546.9 (8.1)	1218.4 (19.1)
HadCattle × Unfront	0.021 (0.20)				18150.2 (10.2)		18479.7 (9.5)
HadCattle × WithGrace	-0.003 (0.26)				-15731.5 (13.9)		-15233.0 (16.0)
HadCattle × InKind	-0.012 (0.21)				8294.6 (13.2)		7432.3 (17.7)
NumCattle0	0.380 (0.73)					-3331.3 (62.1)	-12731.1 (13.5)
mean of dependent variable $T = 2$		21897 42	21897 13	21897 13	21897 13	21897 10	21897 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.041 2017	0.126 1306	0.13 1306	0.088 1070	0.091 1176	0.09 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 70: ANCOVA ESTIMATION OF BROAD NET ASSETS BY PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		9846.6 (0.0)	6795.3 (2.7)	-166.6 (97.0)	8022.1 (9.8)	3297.9 (47.0)	6994.4 (15.5)
Large	0.048 (0.46)	13609.2 (0.0)	13772.5 (0.1)	13573.3 (0.1)	6523.4 (8.6)	10458.4 (1.4)	6586.4 (8.6)
LargeGrace	0.006 (0.43)	5904.1 (4.9)	4728.4 (20.2)	4894.7 (18.1)	-142.5 (96.4)	1685.6 (62.1)	-291.9 (92.7)
Cattle	0.009 (0.44)	5675.4 (1.1)	5305.6 (9.6)	5392.0 (8.7)	135.8 (96.2)	2761.9 (32.7)	215.5 (93.9)
rd 3	0.342 (0.47)	5637.3 (0.0)	5935.1 (0.0)	6002.1 (0.0)	8494.7 (0.0)	7501.6 (0.0)	8592.1 (0.0)
Large × rd 3	0.104 (0.30)	1040.0 (76.0)	2877.7 (48.7)	2863.9 (49.1)	2191.4 (65.3)	3249.5 (45.3)	2519.2 (60.6)
LargeGrace × rd 3	0.085 (0.28)	7109.0 (1.8)	9327.4 (1.8)	9400.5 (1.8)	10981.5 (1.8)	9269.2 (3.3)	10942.2 (1.9)
Cattle \times rd 3	0.087 (0.28)	3298.4 (24.1)	4431.4 (16.9)	4449.5 (16.3)	5346.2 (16.3)	5803.4 (7.2)	5332.1 (16.5)
rd 4	0.315 (0.46)	10333.5 (0.0)	10421.8 (0.0)	10531.5 (0.0)	14091.2 (0.0)	12042.9 (0.0)	14153.5 (0.0)
Large × rd 4	0.102 (0.30)	3138.6 (47.5)	4950.7 (26.4)	4896.4 (27.0)	4129.9 (37.8)	5601.6 (21.5)	4453.6 (34.2)
LargeGrace × rd 4	0.080 (0.27)	9211.8 (0.4)	12281.8 (0.2)	12367.1 (0.2)	15469.4 (0.1)	12581.3 (0.3)	15375.2 (0.1)
Cattle × rd 4	0.079 (0.27)	7367.6 (2.2)	8548.4 (1.3)	8680.4 (1.1)	9955.1 (0.8)	10302.6 (0.2)	9753.9 (0.9)
HadCattle	0.265 (0.44)				7844.7 (20.3)		10322.0 (11.8)
HadCattle × rd 3	0.092 (0.29)				-4533.7 (11.0)		-4613.9 (10.2)
HadCattle × rd 4	0.084 (0.28)				-2318.8 (54.3)		-2443.7 (52.1)
FloodInRd1	0.414 (0.49)			217.4 (92.0)	1956.7 (41.3)	377.2 (87.7)	2134.2 (39.4)
Head literate0	0.149 (0.36)			-231.7 (93.2)	-1625.8 (58.6)	-2035.7 (47.3)	-1618.0 (59.1)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (38.7)	0.6 (5.5)	0.7 (4.7)
HHsize0	4.538 (1.35)			1551.0 (5.0)	1341.8 (15.2)	1633.0 (6.6)	1273.0 (17.1)
HadCattle × Large	0.024 (0.25)				17624.6 (11.2)		17922.7 (10.5)
HadCattle \times Large \times rd 3	0.008 (0.15)				3450.3 (69.2)		3020.9 (72.8)
HadCattle × Large × rd 4	0.009 (0.14)				818.9 (94.2)		665.8 (95.2)
HadCattle × LargeGrace	0.009 (0.23)				7123.7 (32.2)		7883.5 (26.1)
HadCattle × LargeGrace × rd 3	0.003 (0.14)				-24243.5 (1.1)		-24292.4 (1.1)
HadCattle × LargeGrace × rd 4	0.004 (0.13)				-29993.9 (1.7)		-29696.8 (1.8)
HadCattle × Cattle	-0.012 (0.21)				11774.6 (8.6)		11719.1 (7.9)
HadCattle \times Cattle \times rd 3	-0.004 (0.12)				-3368.5 (65.9)		-3444.3 (65.1)
HadCattle \times Cattle \times rd 4	-0.005 (0.11)				-7135.7 (45.5)		-6917.8 (46.7)
NumCattle0	0.380 (0.73)					-2867.9 (66.8)	-12092.9 (15.4)
mean of dependent variable $T = 2$		21897 42	21897 13	21897 13	21897 13	21897 10	21897 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 \ N$	1081	0.07 2017	0.151 1306	0.156 1306	0.138 1070	0.127 1176	0.141 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or $N=1\times(T=2)+2\times(T=3)+3\times(T=4)$. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level. 149

TABLE 71: ANCOVA ESTIMATION OF BROAD NET ASSETS BY ATTRIBUTES AND PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		9846.6 (0.0)	6795.3 (2.7)	-166.6 (97.0)	8022.1 (9.8)	3297.9 (47.0)	6994.4 (15.5)
Unfront	0.063 (0.39)	13609.2 (0.0)	13772.5 (0.1)	13573.3 (0.1)	6523.4 (8.6)	10458.4 (1.4)	6586.4 (8.6)
WithGrace	0.014 (0.50)	-7705.1 (3.4)	-9044.1 (2.4)	-8678.6 (3.5)	-6666.0 (7.1)	-8772.8 (4.5)	-6878.3 (7.3)
InKind	0.009 (0.44)	-228.6 (92.8)	577.2 (84.7)	497.3 (86.3)	278.3 (91.6)	1076.3 (71.2)	507.4 (85.1)
rd 3	0.342 (0.47)	5637.3 (0.0)	5935.1 (0.0)	6002.1 (0.0)	8494.7 (0.0)	7501.6 (0.0)	8592.1 (0.0)
Unfront \times rd 3	0.276 (0.45)	1040.0 (76.0)	2877.7 (48.7)	2863.9 (49.1)	2191.4 (65.3)	3249.5 (45.3)	2519.2 (60.6)
WithGrace × rd 3	0.172 (0.38)	6069.0 (9.1)	6449.8 (15.5)	6536.6 (15.3)	8790.2 (6.4)	6019.7 (20.7)	8423.0 (7.5)
InKind × rd 3	0.087 (0.28)	-3810.6 (20.9)	-4896.0 (19.3)	-4951.0 (18.9)	-5635.3 (12.4)	-3465.8 (36.3)	-5610.1 (12.4)
rd 4	0.315 (0.46)	10333.5 (0.0)	10421.8 (0.0)	10531.5 (0.0)	14091.2 (0.0)	12042.9 (0.0)	14153.5 (0.0)
Unfront × rd 4	0.260 (0.44)	3138.6 (47.5)	4950.7 (26.4)	4896.4 (27.0)	4129.9 (37.8)	5601.6 (21.5)	4453.6 (34.2)
WithGrace × rd 4	0.158 (0.37)	6073.2 (19.5)	7331.1 (14.4)	7470.7 (13.9)	11339.5 (2.9)	6979.7 (18.3)	10921.6 (3.4)
InKind × rd 4	0.079 (0.27)	-1844.2 (60.8)	-3733.4 (37.8)	-3686.7 (38.3)	-5514.3 (20.3)	-2278.7 (59.8)	-5621.3 (19.7)
HadCattle	0.265 (0.44)				7844.7 (20.3)		10322.0 (11.8)
HadCattle × rd 3	0.092 (0.29)				-4533.7 (11.0)		-4613.9 (10.2)
HadCattle × rd 4	0.084 (0.28)				-2318.8 (54.3)		-2443.7 (52.1)
FloodInRd1	0.414 (0.49)			217.4 (92.0)	1956.7 (41.3)	377.2 (87.7)	2134.2 (39.4)
Head literate0	0.149 (0.36)			-231.7 (93.2)	-1625.8 (58.6)	-2035.7 (47.3)	-1618.0 (59.1)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (38.7)	0.6 (5.5)	0.7 (4.7)
HHsize0	4.538 (1.35)			1551.0 (5.0)	1341.8 (15.2)	1633.0 (6.6)	1273.0 (17.1)
HadCattle × Unfront	0.021 (0.20)				17624.6 (11.2)		17922.7 (10.5)
HadCattle \times Upfront \times rd 3	0.006 (0.12)				3450.3 (69.2)		3020.9 (72.8)
HadCattle × Unfront × rd 4	0.007 (0.11)				818.9 (94.2)		665.8 (95.2)
$HadCattle \times WithGrace$	-0.003 (0.26)				-10500.8 (31.2)		-10039.2 (34.1)
HadCattle × WithGrace × rd 3	-0.001 (0.15)				-27693.8 (0.1)		-27313.3 (0.1)
HadCattle \times WithGrace \times rd 4	-0.001 (0.14)				-30812.8 (1.0)		-30362.7 (1.1)
HadCattle × InKind	-0.012 (0.21)				4650.9 (41.6)		3835.7 (50.2)
HadCattle × InKind × rd 3	-0.004 (0.12)				20875.1 (0.5)		20848.1 (0.5)
HadCattle × InKind × rd 4	-0.005 (0.11)				22858.2 (2.9)		22779.1 (2.9)
NumCattle0	0.380 (0.73)					-2867.9 (66.8)	-12092.9 (15.4)
mean of dependent variable $T = 2$	·	21897 42	21897 13	21897 13	21897 13	21897 10	21897 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 \ N$	1081	0.07 2017	0.151 1306	0.156 1306	0.138 1070	0.127 1176	0.141 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsizeO is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or $N=1\times(T=2)+2\times(T=3)+3\times(T=4)$. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level. 150

TABLE 72: ANCOVA ESTIMATION OF BROAD NET ASSETS BY ARM, POVERTY STATUS, AND PERIOD

covariates (Intercept)	mean/std	(1) 9459.5 (0.0)	(2) 6006.4 (8.0)	(3) -1241.0 (79.4)	(4) 7082.7 (15.4)	(5) 2480.2 (61.7)	(6) 5923.2 (24.5)
Large	0.048 (0.46)	13843.8 (0.0)	14510.3 (0.0)	14364.7 (0.1)	7508.6 (5.0)	11049.6 (1.2)	7649.0 (4.9)
LargeGrace	0.006 (0.43)	6320.4 (3.3)	5241.1 (17.3)	5486.2 (15.4)	45.2 (98.9)	2043.9 (58.5)	-114.9 (97.3)
Cattle	0.009 (0.44)	6141.2 (0.5)	5927.8 (8.3)	6103.5 (7.2)	622.4 (84.2)	3262.9 (31.7)	768.2 (80.7)
UltraPoor	0.607 (0.49)	-3853.9 (1.2)	-3536.2 (8.3)	-3741.7 (6.6)	-3429.9 (12.0)	-3093.2 (15.4)	-3269.3 (13.9)
Large × UltraPoor	0.045 (0.37)	-5124.2 (31.2)	-5152.9 (42.2)	-5420.0 (41.8)	-10297.4 (14.1)	-6934.7 (33.5)	-9742.9 (16.8)
LargeGrace × UltraPoor	0.027 (0.35)	2507.0 (43.3)	5286.4 (27.8)	5334.0 (25.6)	5148.5 (28.3)	4198.2 (41.5)	6480.1 (19.5)
Cattle × UltraPoor	0.001 (0.34)	-7.9 (99.8)	-349.3 (94.3)	-53.2 (99.2)	914.8 (87.0)	-97.2 (98.6)	1232.1 (82.6)
rd 3	0.342 (0.47)	5622.4 (0.0)	5939.2 (0.0)	6005.6 (0.0)	8409.4 (0.0)	7403.5 (0.0)	8518.2 (0.0)
Large × rd 3	0.104 (0.30)	1719.3 (60.7)	3296.1 (44.9)	3255.2 (45.5)	3066.1 (54.2)	3960.2 (39.1)	3429.5 (49.7)
LargeGrace × rd 3	0.085 (0.28)	7933.9 (1.4)	10165.6 (2.8)	10190.4 (2.9)	12851.2 (1.3)	10298.2 (4.1)	12836.1 (1.3)
Cattle \times rd 3	0.087 (0.28)	3679.8 (19.7)	5087.6 (15.1)	5058.5 (14.9)	6788.3 (9.5)	6747.0 (6.6)	6779.7 (9.6)
UltraPoor \times rd 3	0.204 (0.40)	-288.7 (89.2)	826.6 (77.5)	930.3 (74.8)	143.8 (96.5)	1529.2 (60.1)	134.5 (96.7)
Large × UltraPoor × rd 3	0.014 (0.21)	6909.8 (26.7)	8732.1 (24.8)	8732.3 (24.8)	11429.2 (17.1)	9920.7 (20.4)	11482.0 (17.2)
LargeGrace × UltraPoor × rd 3	0.010 (0.21)	-1198.5 (84.0)	-1377.4 (87.7)	-1296.5 (88.5)	-2623.9 (81.0)	528.9 (95.5)	-2610.2 (81.1)
Cattle \times UltraPoor \times rd 3	-0.000 (0.19)	6969.4 (9.2)	6109.7 (25.1)	6065.2 (25.6)	12323.3 (4.6)	9830.8 (9.0)	12377.2 (4.6)
rd 4	0.315 (0.46)	10411.2 (0.0)	10655.2 (0.0)	10759.0 (0.0)	14209.8 (0.0)	12224.6 (0.0)	14285.9 (0.0)
Large × rd 4	0.102 (0.30)	3379.0 (42.0)	4037.2 (37.8)	3965.4 (38.7)	3790.8 (43.3)	4808.3 (30.7)	4114.0 (39.7)
LargeGrace × rd 4	0.080 (0.27)	9376.5 (0.6)	11353.7 (1.4)	11395.8 (1.4)	15566.2 (0.3)	11699.1 (1.8)	15465.5 (0.3)
Cattle × rd 4	0.079 (0.27)	7206.8 (2.8)	7884.4 (4.3)	7966.7 (3.7)	10073.9 (1.4)	9756.3 (1.1)	9854.6 (1.6)
UltraPoor × rd 4	0.195 (0.40)	2844.1 (26.0)	5151.7 (7.5)	5199.8 (7.3)	3773.1 (25.7)	6025.0 (3.7)	3789.8 (25.6)
Large × UltraPoor × rd 4	0.016 (0.21)	10217.6 (19.4)	5895.4 (46.5)	6082.2 (45.0)	8060.4 (39.4)	7172.6 (37.8)	8124.8 (39.2)
LargeGrace × UltraPoor × rd 4	0.008 (0.20)	-1411.8 (81.4)	-3313.4 (66.7)	-3040.4 (69.6)	-2782.9 (76.7)	-1073.3 (89.6)	-2836.3 (76.3)
Cattle \times UltraPoor \times rd 4	-0.001 (0.19)	6055.2 (19.5)	1043.0 (84.6)	961.3 (86.0)	7501.8 (24.6)	4461.2 (43.0)	7483.2 (24.5)
HadCattle	0.265 (0.44)		, ,	, ,	8201.7 (18.5)	,	10868.0 (10.7)
HadCattle × rd 3	0.092 (0.29)				-4604.1 (10.5)		-4700.3 (9.5)
HadCattle × rd 4	0.084 (0.28)				-2566.2 (51.5)		-2711.1 (49.1)
FloodInRd1	0.414 (0.49)			152.9 (94.4)	1582.2 (51.0)	202.6 (93.4)	1813.4 (47.4)
Head literate0	0.149 (0.36)			-659.9 (81.7)	-2041.6 (49.9)	-2419.1 (41.3)	-1951.1 (52.0)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (41.6)	0.6 (5.0)	0.7 (4.0)
HHsize0	4.538 (1.35)			1621.4 (3.9)	1477.5 (10.9)	1713.7 (5.2)	1403.1 (12.7)
HadCattle × Large	0.024 (0.25)				16251.4 (14.2)		16436.7 (13.6)
HadCattle \times Large \times rd 3	0.008 (0.15)				2819.2 (72.2)		2354.9 (76.5)
HadCattle \times Large \times rd 4	0.009 (0.14)				1764.4 (87.5)		1601.7 (88.6)
HadCattle × LargeGrace	0.009 (0.23)				7162.6 (31.8)		8007.8 (24.5)
HadCattle × LargeGrace × rd 3	0.003 (0.14)				-27087.1 (0.5)		-27149.5 (0.4)
$HadCattle \times LargeGrace \times rd~4$	0.004 (0.13)				-30352.9 (2.1)		-30071.5 (2.2)
HadCattle × Cattle	-0.012 (0.21)				11221.7 (10.3)		11051.8 (9.6)
HadCattle \times Cattle \times rd 3	-0.004 (0.12)				-5263.1 (44.6)		-5335.2 (43.9)
HadCattle \times Cattle \times rd 4	-0.005 (0.11)		4 = 4		-7993.4 (42.1)		-7746.0 (43.3)
NumCattle0	0.380 (0.73)		151			-2855.6 (66.5)	-12408.5 (14.7)
mean of dependent variable $T-2$		21897 42	21897 13	21897 13	21897 13	21897 10	21897 13

Table 73: ANCOVA estimation of broad net assets by attributes, poverty status, and period

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	covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
	(Intercept)	0.062	9459.5 (0.0)	6006.4 (8.0)	-1241.0 (79.4)	7082.7 (15.4)	2480.2 (61.7)	5923.2 (24.5)
	Unfront	0.063 (0.39)	13843.8 (0.0)	14510.3 (0.0)	14364.7 (0.1)	7508.6 (5.0)	11049.6 (1.2)	7649.0 (4.9)
	WithGrace	0.014 (0.50)	-7523.5 (2.8)	-9269.2 (1.7)	-8878.6 (2.6)	-7463.4 (3.5)	-9005.7 (3.5)	-7763.8 (3.5)
	InKind	0.009 (0.44)	-179.2 (94.2)	686.7 (81.6)	617.4 (82.9)	577.2 (82.7)	1219.0 (67.6)	883.1 (74.4)
	UltraPoor	0.607 (0.49)	-3853.9 (1.2)	-3536.2 (8.3)	-3741.7 (6.6)	-3429.9 (12.0)	-3093.2 (15.4)	-3269.3 (13.9)
	Unfront \times UltraPoor	0.072 (0.27)	-5124.2 (31.2)	-5152.9 (42.2)	-5420.0 (41.8)	-10297.4 (14.1)	-6934.7 (33.5)	-9742.9 (16.8)
	WithGrace \times UltraPoor	0.027 (0.39)	7631.2 (12.6)	10439.3 (11.2)	10754.0 (11.0)	15445.9 (2.6)	11132.9 (10.1)	16223.0 (2.1)
	$InKind \times IJltraPoor$	0.001 (0.34)	-2514.9 (44.3)	-5635.7 (25.5)	-5387.2 (27.8)	-4233.6 (43.5)	-4295.4 (39.4)	-5248.0 (34.3)
	rd 3	0.342 (0.47)	5622.4 (0.0)	5939.2 (0.0)	6005.6 (0.0)	8409.4 (0.0)	7403.5 (0.0)	8518.2 (0.0)
	UltraPoor × rd 3	0.204 (0.40)	-288.7 (89.2)	826.6 (77.5)	930.3 (74.8)	143.8 (96.5)	1529.2 (60.1)	134.5 (96.7)
	Upfront × rd 3	0.276	1719.3 (60.7)	3296.1	3255.2	3066.1	3960.2	3429.5
	WithGrace × rd 3	(0.45)	6214.6	(44.9) 6869.6	(45.5) 6935.2	(54.2) 9785.1	(39.1) 6338.0	(49.7) 9406.7
	InKind × rd 3	(0.38)	(8.9) -4254.1	(15.7) -5078.0	(15.6) -5131.9	(5.3) -6062.9	(21.1) -3551.2	(6.2) -6056.5
	Unfront × UltraPoor × rd 3	0.024	(18.4) 6909.8	(22.3) 8732.1	(22.1) 8732.3	(13.8) 11429.2	(39.9) 9920.7	(13.6) 11482.0
V	WithGrace × UltraPoor × rd 3	(0.16) 0.010	(26.7) -8108.3	(24.8) -10109.5	(24.8) -10028.8	(17.1) -14053.1	(20.4) -9391.8	(17.2) -14092.1
	InKind × UltraPoor × rd 3	(0.23) -0.000	(27.4) 8167.9	(31.8) 7487.1	(32.4) 7361.7	(22.3) 14947.2	(35.9) 9301.9	(22.2) 14987.4
	rd 4	(0.19) 0.315	(15.7) 10411.2	(38.0) 10655.2	(39.0) 10759.0	(13.6) 14209.8	(28.4) 12224.6	(13.5) 14285.9
	UltraPoor × rd 4	(0.46)	(0.0) 2844.1	(0.0) 5151.7	(0.0)	(0.0)	(0.0) 6025.0	(0.0) 3789.8
	Upfront × rd 4	(0.40) 0.260	(26.0) 3379.0	(7.5) 4037.2	(7.3) 3965.4	(25.7) 3790.8	(3.7) 4808.3	(25.6) 4114.0
	WithGrace × rd 4	(0.44) 0.158	(42.0) 5997.5	(37.8)	(38.7)	(43.3) 11775.4	(30.7)	(39.7)
		(0.37)	(18.2)	(15.2) -3469.3	(14.8)	(2.7) -5492.3	(19.6) -1942.8	(3.3)
	InKind × rd 4	(0.27)	(55.4)	(44.5)	(45.1)	(23.7)	(67.1)	(22.9)
	Unfront × UltraPoor × rd 4	0.024 (0.16)	10217.6 (19.4)	5895.4 (46.5)	6082.2 (45.0)	8060.4 (39.4)	7172.6 (37.8)	8124.8 (39.2)
	WithGrace × UltraPoor × rd 4	0.008 (0.22)	-11629.4 (18.6)	-9208.8 (36.2)	-9122.6 (36.7)	-10843.4 (34.6)	-8245.9 (41.3)	-10961.1 (34.3)
	InKind × UltraPoor × rd 4	-0.001 (0.19)	7467.0 (22.0)	4356.5 (58.9)	4001.8 (62.3)	10284.7 (26.2)	5534.5 (49.5)	10319.5 (26.0)
	HadCattle	0.265 (0.44)				8201.7 (18.5)		10868.0 (10.7)
	HadCattle \times rd 3	0.092 (0.29)				-4604.1 (10.5)		-4700.3 (9.5)
	HadCattle \times rd 4	0.084 (0.28)				-2566.2 (51.5)		-2711.1 (49.1)
	FloodInRd1	0.414 (0.49)			152.9 (94.4)	1582.2 (51.0)	202.6 (93.4)	1813.4 (47.4)
	Head literate0	0.149 (0.36)			-659.9 (81.7)	-2041.6 (49.9)	-2419.1 (41.3)	-1951.1 (52.0)
	net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (41.6)	0.6 (5.0)	0.7 (4.0)
	HHsize0	4.538 (1.35)		(010)	1621.4 (3.9)	1477.5 (10.9)	1713.7 (5.2)	1403.1 (12.7)
	HadCattle × Unfront	0.021 (0.20)			(3.7)	16251.4 (14.2)	(3.2)	16436.7 (13.6)
	HadCattle \times Upfront \times rd 3	0.006 (0.12)				2819.2 (72.2)		2354.9 (76.5)
	${\sf HadCattle} \times {\sf Unfront} \times {\sf rd} \; 4$	0.007				1764.4		1601.7
	HadCattle × WithGrace	(0.11) -0.003				(87.5) -9088.9		(88.6) -8428.9
F	HadCattle × WithGrace × rd 3	(0.26) -0.001				(38.4) -29906.2		(42.7) -29504.4
F	IadCattle × WithGrace × rd 4	(0.15) -0.001				(0.1) -32117.3		(0.1) -31673.2
	HadCattle × InKind	(0.14) -0.012				(0.9) 4059.1		(1.0)
	HadCattle × InKind × rd 3	(0.21) -0.004				(49.4) 21824.0		(60.5) 21814.3
	HadCattle × InKind × rd 4	(0.12) -0.005				(0.9) 22359.5		(0.8) 22325.5
	NumCattle0	(0.11) 0.380				(4.7)	-2855.6	(4.7) -12408.5
	mean of dependent variable	(0.73)	21897	152 21897	21897	21897	(66.5) 21897	(14.7)
	T = 2 $T = 3$		42	13	13	13	10	13

TABLE 74: ANCOVA ESTIMATION OF BROAD NET ASSETS USING ANNUAL PRICES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		21122.2 (0.0)	16056.8 (0.0)	7574.8 (16.6)	21880.7 (0.1)	13342.9 (2.4)	20636.3 (0.2)
Large	0.048 (0.46)	19833.4 (0.0)	20493.5 (0.0)	20216.7 (0.0)	10595.0 (4.2)	16179.2 (0.7)	10689.6 (4.4)
LargeGrace	0.006 (0.43)	11660.6 (0.7)	11113.6 (3.4)	11380.3 (2.8)	5361.2 (25.6)	7015.8 (16.1)	5160.9 (28.1)
Cattle	0.009 (0.44)	10302.7 (0.1)	9859.2 (1.2)	10029.6 (1.1)	3345.3 (35.5)	6826.5 (5.4)	3442.0 (33.4)
HadCattle	0.265 (0.44)				7049.3 (42.2)		10101.8 (28.6)
FloodInRd1	0.414 (0.49)			440.3 (88.6)	2628.5 (43.8)	705.4 (84.0)	2829.5 (42.6)
Head literate0	0.149 (0.36)			-1269.7 (74.8)	-2658.4 (53.3)	-3717.1 (36.5)	-2747.7 (52.4)
net asset value ₁	10261.899 (15197.09)		0.7 (0.0)	0.7 (0.0)	0.3 (27.1)	0.8 (4.2)	1.0 (4.1)
HHsize0	4.538 (1.35)			1915.6 (7.9)	1468.7 (26.5)	1987.7 (10.3)	1385.5 (28.8)
HadCattle × Large	0.024 (0.25)				25506.6 (11.1)		25905.6 (10.4)
HadCattle × LargeGrace	0.009 (0.23)				-1085.0 (90.2)		-88.2 (99.2)
HadCattle × Cattle	-0.012 (0.21)				12000.2 (15.9)		11962.1 (14.6)
NumCattle0	0.380 (0.73)					-4056.0 (66.8)	-15243.8 (20.9)
mean of dependent variable $T = 2$		31787 42	31787 13	31787 13	31787 13	31787 10	31787 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.035 2017	0.113 1306	0.115 1306	0.074 1070	0.079 1176	0.075 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Sample is continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 75: ANCOVA ESTIMATION OF BROAD NET ASSETS USING ANNUAL PRICES BY ATTRIBUTES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		21122.2 (0.0)	16056.8 (0.0)	7574.8 (16.6)	21880.7 (0.1)	13342.9 (2.4)	20636.3 (0.2)
Unfront	0.063 (0.39)	19833.4 (0.0)	20493.5 (0.0)	20216.7 (0.0)	10595.0 (4.2)	16179.2 (0.7)	10689.6 (4.4)
WithGrace	0.014 (0.50)	-8172.9 (13.3)	-9379.9 (12.3)	-8836.4 (16.0)	-5233.8 (35.4)	-9163.5 (17.9)	-5528.7 (34.6)
InKind	0.009 (0.44)	-1357.8 (72.6)	-1254.3 (78.4)	-1350.7 (76.1)	-2015.9 (62.2)	-189.3 (96.7)	-1718.9 (68.1)
HadCattle	0.265 (0.44)				7049.3 (42.2)		10101.8 (28.6)
FloodInRd1	0.414 (0.49)			440.3 (88.6)	2628.5 (43.8)	705.4 (84.0)	2829.5 (42.6)
Head literate0	0.149 (0.36)			-1269.7 (74.8)	-2658.4 (53.3)	-3717.1 (36.5)	-2747.7 (52.4)
net asset value ₁	10261.899 (15197.09)		0.7 (0.0)	0.7 (0.0)	0.3 (27.1)	0.8 (4.2)	1.0 (4.1)
HHsize0	4.538 (1.35)			1915.6 (7.9)	1468.7 (26.5)	1987.7 (10.3)	1385.5 (28.8)
HadCattle × Unfront	0.021 (0.20)				25506.6 (11.1)		25905.6 (10.4)
HadCattle × WithGrace	-0.003 (0.26)				-26591.6 (8.9)		-25993.9 (10.4)
HadCattle × InKind	-0.012 (0.21)				13085.2 (9.2)		12050.3 (11.8)
NumCattle0	0.380 (0.73)					-4056.0 (66.8)	-15243.8 (20.9)
mean of dependent variable $T = 2$		31787 42	31787 13	31787 13	31787 13	31787 10	31787 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.035 2017	0.113 1306	0.115 1306	0.074 1070	0.079 1176	0.075 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Sample is continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 76: ANCOVA ESTIMATION OF BROAD NET ASSETS USING ANNUAL PRICES BY PERIOD

TABLE 70. AINCOVA	A ESTIMATIO	N OF BROA	D NEI ASSI	EIS USING A	INNUAL PRI	CES DI PEI	KIOD
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		7645.8 (0.3)	2389.7 (52.7)	-7235.9 (20.6)	4233.9 (50.5)	-2792.4 (64.5)	3059.3 (64.0)
Large	0.048 (0.46)	17517.7 (0.0)	17643.0 (0.0)	17382.0 (0.1)	8416.3 (8.6)	13607.7 (1.3)	8556.9 (8.5)
LargeGrace	0.006 (0.43)	8510.9 (2.8)	7071.7 (14.3)	7293.8 (12.5)	1539.3 (71.4)	3431.0 (44.7)	1371.1 (74.7)
Cattle	0.009 (0.44)	7911.6 (0.6)	7590.3 (5.6)	7710.6 (5.0)	1392.4 (69.5)	4821.7 (17.1)	1481.2 (67.3)
rd 3	0.342 (0.47)	11102.9 (0.0)	11799.3 (0.0)	11894.3 (0.0)	15189.0 (0.0)	13763.1 (0.0)	15298.3 (0.0)
Large × rd 3	0.104 (0.30)	3894.8 (30.3)	6219.2 (17.2)	6199.9 (17.5)	3700.9 (47.3)	5886.1 (21.9)	4068.9 (43.1)
LargeGrace × rd 3	0.085 (0.28)	8841.6 (0.8)	11452.4 (0.8)	11556.4 (0.8)	11662.7 (2.3)	10450.9 (2.9)	11619.1 (2.3)
Cattle × rd 3	0.087 (0.28)	4701.5 (13.5)	5941.5 (7.6)	5975.8 (7.0)	5863.8 (14.4)	6815.2 (4.2)	5848.6 (14.6)
rd 4	0.315 (0.46)	33203.1 (0.0)	33959.1 (0.0)	34114.2 (0.0)	43152.0 (0.0)	38418.2 (0.0)	43291.2 (0.0)
Large × rd 4	0.102 (0.30)	16331.8 (2.3)	19941.1 (1.0)	19863.7 (1.0)	10772.5 (13.0)	17497.5 (3.1)	11400.8 (11.0)
LargeGrace × rd 4	0.080 (0.27)	18191.0 (0.1)	22763.0 (0.1)	22882.5 (0.1)	21492.8 (0.8)	19914.4 (0.8)	21386.9 (0.8)
Cattle × rd 4	0.079 (0.27)	15157.1 (0.3)	16026.6 (0.3)	16219.6 (0.2)	13804.5 (0.8)	16369.1 (0.1)	13579.6 (0.9)
HadCattle	0.265 (0.44)				7188.9 (40.8)		10048.0 (28.8)
HadCattle × rd 3	0.092 (0.29)				-1756.2 (58.9)		-1845.3 (56.8)
HadCattle × rd 4	0.084 (0.28)				9728.9 (14.0)		9503.3 (14.9)
FloodInRd1	0.414 (0.49)			212.2 (94.6)	2761.2 (42.4)	514.6 (88.5)	2916.7 (41.8)
Head literate0	0.149 (0.36)			-219.6 (95.5)	-2446.5 (56.6)	-2985.2 (46.6)	-2433.7 (57.3)
net asset value ₁	10261.899 (15197.09)		0.8 (0.0)	0.7 (0.0)	0.3 (29.9)	0.7 (5.6)	0.9 (6.0)
HHsize0	4.538 (1.35)			2148.6 (5.1)	1622.4 (21.1)	2222.3 (6.9)	1553.0 (22.6)
HadCattle × Large	0.024 (0.25)				23182.6 (11.6)		23410.4 (11.1)
HadCattle × Large × rd 3	0.008 (0.15)				7260.7 (47.7)		6785.0 (50.6)
HadCattle × Large × rd 4	0.009 (0.14)				15246.9 (47.6)		14746.2 (48.9)
HadCattle × LargeGrace	0.009 (0.23)				4678.2 (59.9)		5509.6 (52.6)
HadCattle × LargeGrace × rd 3	0.003 (0.14)				-26617.2 (0.8)		-26671.8 (0.8)
HadCattle × LargeGrace × rd 4	0.004 (0.13)				-42333.3 (2.0)		-41999.1 (2.1)
HadCattle × Cattle	-0.012 (0.21)				13590.3 (11.0)		13501.3 (10.3)
HadCattle \times Cattle \times rd 3	-0.004 (0.12)				-2358.4 (76.7)		-2442.9 (75.9)
$HadCattle \times Cattle \times rd \ 4$	-0.005 (0.11)				-6461.5 (63.4)		-6223.4 (64.5)
NumCattle0	0.380 (0.73)					-2722.6 (76.8)	-13546.2 (25.6)
mean of dependent variable $T = 2$		31787 42	31787 13	31787 13	31787 13	31787 10	31787 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.173 2017	0.242 1306	0.245 1306	0.287 1070	0.241 1176	0.289 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsizeO is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or $N=1\times(T=2)+2\times(T=3)+3\times(T=4)$. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Sample is continuing members and replacing members of early rejecters and received loans prior to 2015 Januarry. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level. 155

TABLE 77: ANCOVA ESTIMATION OF BROAD NET ASSETS USING ANNUAL PRICES BY ATTRIBUTES AND PERIOD

LE 11. AINCOVA ESTIMA	MITON OF DR	OAD NEI	ASSETS USING	JANNUAL	PRICES DI	ALIKIDULES	AND PERIC
covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		7645.8 (0.3)	2389.7 (52.7)	-7235.9 (20.6)	4233.9 (50.5)	-2792.4 (64.5)	3059.3 (64.0)
Unfront	0.063 (0.39)	17517.7 (0.0)	17643.0 (0.0)	17382.0 (0.1)	8416.3 (8.6)	13607.7 (1.3)	8556.9 (8.5)
WithGrace	0.014 (0.50)	-9006.7 (5.7)	-10571.3 (4.6)	-10088.1 (6.6)	-6877.0 (16.9)	-10176.7 (8.7)	-7185.8 (16.5)
InKind	0.009 (0.44)	-599.3 (85.6)	518.7 (89.9)	416.8 (91.5)	-146.9 (96.7)	1390.7 (72.5)	110.1 (97.6)
rd 3	0.342 (0.47)	11102.9 (0.0)	11799.3 (0.0)	11894.3 (0.0)	15189.0 (0.0)	13763.1 (0.0)	15298.3 (0.0)
Unfront \times rd 3	0.276 (0.45)	3894.8 (30.3)	6219.2 (17.2)	6199.9 (17.5)	3700.9 (47.3)	5886.1 (21.9)	4068.9 (43.1)
WithGrace × rd 3	0.172 (0.38)	4946.8 (22.8)	5233.2 (32.0)	5356.5 (31.3)	7961.8 (13.8)	4564.7 (41.7)	7550.2 (15.7)
InKind \times rd 3	0.087 (0.28)	-4140.1 (24.0)	-5510.9 (20.5)	-5580.6 (20.0)	-5798.9 (17.2)	-3635.6 (41.4)	-5770.5 (17.3)
rd 4	0.315 (0.46)	33203.1 (0.0)	33959.1 (0.0)	34114.2 (0.0)	43152.0 (0.0)	38418.2 (0.0)	43291.2 (0.0)
Unfront × rd 4	0.260 (0.44)	16331.8 (2.3)	19941.1 (1.0)	19863.7 (1.0)	10772.5 (13.0)	17497.5 (3.1)	11400.8 (11.0)
WithGrace × rd 4	0.158 (0.37)	1859.2 (81.9)	2821.9 (76.0)	3018.7 (74.5)	10720.4 (22.2)	2416.8 (80.6)	9986.1 (25.6)
InKind × rd 4	0.079 (0.27)	-3033.9 (63.0)	-6736.4 (36.8)	-6662.8 (37.6)	-7688.3 (29.0)	-3545.3 (63.5)	-7807.3 (28.5)
HadCattle	0.265 (0.44)	(02.0)	(2010)	(27.0)	7188.9 (40.8)	(60.0)	10048.0 (28.8)
HadCattle × rd 3	0.092 (0.29)				-1756.2 (58.9)		-1845.3 (56.8)
HadCattle × rd 4	0.084 (0.28)				9728.9 (14.0)		9503.3 (14.9)
FloodInRd1	0.414 (0.49)			212.2 (94.6)	2761.2 (42.4)	514.6 (88.5)	2916.7 (41.8)
Head literate0	0.149 (0.36)			-219.6 (95.5)	-2446.5 (56.6)	-2985.2 (46.6)	-2433.7 (57.3)
net asset value ₁	10261.899 (15197.09)		0.8 (0.0)	0.7 (0.0)	0.3 (29.9)	0.7 (5.6)	0.9 (6.0)
HHsize0	4.538 (1.35)		(0.0)	2148.6 (5.1)	1622.4 (21.1)	2222.3 (6.9)	1553.0 (22.6)
HadCattle × Unfront	0.021 (0.20)			(3.1)	23182.6 (11.6)	(0.5)	23410.4 (11.1)
HadCattle \times Upfront \times rd 3	0.006 (0.12)				7260.7 (47.7)		6785.0 (50.6)
$HadCattle \times Unfront \times rd 4$	0.007 (0.11)				15246.9 (47.6)		14746.2 (48.9)
HadCattle × WithGrace	-0.003 (0.26)				-18504.3 (18.5)		-17900.8 (20.8)
HadCattle × WithGrace × rd 3	-0.001 (0.15)				-33877.9 (0.1)		-33456.8 (0.1)
$HadCattle \times WithGrace \times rd 4$	-0.001 (0.14)				-57580.2 (1.0)		-56745.3 (1.1)
HadCattle × InKind	-0.012 (0.21)				8912.1 (20.3)		7991.8 (25.1)
HadCattle × InKind × rd 3	-0.004 (0.12)				24258.8 (0.3)		24228.9 (0.3)
HadCattle × InKind × rd 4	-0.005 (0.11)				35871.8 (1.7)		35775.7 (1.8)
NumCattle0	0.380 (0.73)				(1.7)	-2722.6 (76.8)	-13546.2
mean of dependent variable $T = 2$	(0.73)	31787 42	31787 13	31787 13	31787 13	31787 10	(25.6) 31787 13
T = 2 $T = 3$ $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$egin{array}{c} I = 4 \\ ar{R}^2 \\ N \end{array}$	1081	0.173 2017	0.242 1306	0.245	0.287	0.241 1176	0.289 1066
IV	1081	2017	1300	1306	1070	11/0	1000

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Sample is continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

Table 78: ANCOVA estimation of broad net assets using annual prices by arm, poverty status, and period

) PERIOD							
covariates (Intercept)	mean/std	(1) 7195.8	(2) 1405.1	(3) -8524.4	(4) 3187.6	(5) -3748.3	(6) 1867.5
Large	0.048	(0.5) 17819.8	(73.5) 18518.9	(16.7)	(62.5) 9526.2	(56.5) 14283.2	(78.3) 9754.7
	(0.46)	(0.0)	(0.0)	(0.1)	(5.0)	(1.1)	(4.8)
LargeGrace	0.006 (0.43)	9027.9 (1.8)	7606.7 (12.3)	7928.9 (10.7)	1715.4 (69.2)	3754.1 (43.4)	1533.6 (72.8)
Cattle	0.009 (0.44)	8462.9 (0.3)	8360.5 (4.6)	8591.9 (3.9)	1941.1 (60.7)	5407.1 (17.2)	2099.4 (57.8)
UltraPoor	0.607 (0.49)	-4401.4 (1.4)	-3675.1 (13.4)	-3946.8 (10.6)	-3682.7 (16.3)	-2913.7 (26.5)	-3494.3 (18.6)
Large × UltraPoor	0.045 (0.37)	-4990.6 (38.8)	-4820.6 (50.9)	-5190.3 (50.1)	-11956.0 (13.9)	-7279.2 (38.4)	-11318.1 (16.5)
LargeGrace × UltraPoor	0.027 (0.35)	2863.1 (46.3)	7190.4 (27.4)	7247.9 (25.1)	5716.2 (35.5)	5646.3 (40.5)	7212.1 (26.2)
Cattle × UltraPoor	0.001 (0.34)	488.3 (91.0)	-483.0 (93.8)	-69.6 (99.1)	1646.1 (81.9)	359.8 (96.0)	2001.7 (78.2)
rd 3	0.342 (0.47)	11091.4 (0.0)	11857.3 (0.0)	11951.4 (0.0)	15117.8 (0.0)	13734.7 (0.0)	15239.7 (0.0)
Large × rd 3	0.104 (0.30)	4615.6 (22.0)	6530.5 (16.9)	6475.1 (17.4)	4687.2 (38.2)	6412.1 (20.7)	5093.6 (34.4)
LargeGrace × rd 3	0.085 (0.28)	9787.3 (0.6)	12256.1 (1.5)	12296.5 (1.6)	13633.7 (1.8)	11363.6 (4.0)	13617.3 (1.8)
Cattle \times rd 3	0.087	5138.4	6504.2	6478.4	7407.4	7586.6	7398.1
UltraPoor × rd 3	(0.28)	(10.5) -1003.0	(7.4)	(7.2) 657.1	(8.3) -254.1	(4.7) 1445.2	(8.4) -248.6
Large \times UltraPoor \times rd 3	(0.40) 0.014	(66.0) 5995.7	(86.9) 7274.5	(83.4) 7272.9	(94.3) 10253.3	(64.8) 8289.2	(94.4) 10365.1
LargeGrace × UltraPoor × rd 3	(0.21) 0.010	(35.7) -1807.4	(34.6) -2659.0	(34.5) -2552.3	(23.9) -2815.0	(29.9) -1031.1	(23.8) -2801.4
Cattle \times UltraPoor \times rd 3	(0.21) -0.000	(77.9) 7165.6	(78.7) 5691.3	(79.6) 5631.2	(81.6) 13375.7	(92.1) 9584.4	(81.7) 13434.0
rd 4	(0.19) 0.315	(11.0) 33254.0	(32.4) 34278.4	(33.1) 34425.1	(5.2) 43276.0	(12.8) 38751.8	(5.3) 43435.2
Large × rd 4	(0.46) 0.102	(0.0) 16807.9	(0.0) 18689.4	(0.0) 18591.2	(0.0) 10742.5	(0.0) 15985.1	(0.0) 11386.3
LargeGrace × rd 4	(0.30) 0.080	(1.8) 18645.9	(1.7) 21394.6	(1.7) 21458.7	(13.8) 21314.9	(4.8) 18119.2	(11.9) 21202.2
Cattle × rd 4	(0.27) 0.079	(0.1) 15292.3	(0.4) 15071.1	(0.4) 15204.4	(1.1) 13998.4	(2.1) 15132.6	(1.2) 13754.5
	(0.27)	(0.3)	(0.7)	(0.7)	(1.0)	(0.3)	(1.1)
UltraPoor × rd 4	0.195 (0.40)	1326.0 (69.4)	5120.1 (19.6)	5182.5 (19.1)	3517.4 (45.7)	7793.5 (5.8)	3550.7 (45.4)
Large × UltraPoor × rd 4	0.016 (0.21)	11728.8 (23.3)	2587.1 (78.9)	2841.0 (76.8)	2361.0 (85.5)	2409.2 (81.9)	2475.5 (84.8)
LargeGrace × UltraPoor × rd 4	0.008 (0.20)	701.0 (93.7)	-4087.9 (73.2)	-3719.5 (75.7)	650.2 (96.4)	-2207.3 (86.5)	586.3 (96.8)
Cattle \times UltraPoor \times rd 4	-0.001 (0.19)	7904.5 (27.4)	-2111.5 (81.0)	-2237.1 (80.1)	9867.6 (38.8)	3108.1 (75.0)	9844.1 (38.8)
HadCattle	0.265 (0.44)				7582.1 (39.0)		10659.0 (27.5)
HadCattle × rd 3	0.092 (0.29)				-1866.5 (57.2)		-1972.8 (54.7)
HadCattle \times rd 4	0.084 (0.28)				9461.2 (17.2)		9207.2 (18.3)
FloodInRd1	0.414 (0.49)			128.9 (96.8)	2279.7 (51.2)	281.8 (93.7)	2505.8 (49.3)
Head literate0	0.149 (0.36)			-711.2 (86.2)	-2950.9 (49.2)	-3405.8 (42.2)	-2820.6 (51.6)
net asset value ₁	10261.899 (15197.09)		0.8 (0.0)	0.8 (0.0)	0.3 (32.3)	0.7 (4.7)	0.9 (5.1)
HHsize0	4.538 (1.35)		(0.0)	2223.2 (4.4)	1786.3 (16.5)	2307.3 (5.9)	1709.0 (18.1)
HadCattle × Large	0.024			(4.4)	21676.1	(3.7)	21771.8
HadCattle × Large × rd 3	(0.25) 0.008				(14.7) 6500.6		(14.2) 5986.2
HadCattle × Large × rd 4	(0.15)				(50.0) 15901.0		(53.4) 15368.2
HadCattle × LargeGrace	(0.14) 0.009				(47.3) 4747.5		(48.6) 5673.8
HadCattle × LargeGrace × rd 3	(0.23) 0.003				(59.9) -29620.5		(51.5) -29690.8
HadCattle × LargeGrace × rd 4	(0.14) 0.004				(0.4) -42160.6		(0.4) -41843.9
HadCattle × Cattle	(0.13) -0.012				(3.0) 12883.7		(3.1)
HadCattle × Cattle × rd 3	(0.21) -0.004				(14.1) -4391.7		(13.4) -4473.1
HadCattle × Cattle × rd 4	(0.12) -0.005				(54.8) -7801.3		(54.0) -7530.6
	(0.11)		157		(60.7)	2022 6	(61.7) -13899.9
NumCattle0	0.380 (0.73)	21707	21707	21797	21797	-2822.6 (75.4)	-13899.9 (24.5)

Table 79: ANCOVA estimation of broad net assets using annual prices by attributes, poverty status, and period

TU	S, AND PERIOD							
	covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6) 1867 5
	(Intercept)		7195.8 (0.5)	1405.1 (73.5)	-8524.4 (16.7)	3187.6 (62.5)	-3748.3 (56.5)	1867.5 (78.3)
	Unfront	0.063 (0.39)	17819.8 (0.0)	18518.9 (0.0)	18329 9 (0.1)	9526.2 (5.0)	14283.2 (1.1)	9754.7 (4.8)
	WithGrace	0.014 (0.50)	-8791.9 (5.4)	-10912.2 (3.5)	-10401.0 (5.4)	-7810.8 (10.7)	-10529.1 (7.3)	-8221.1 (10.1)
	InKind	0.009 (0.44)	-565.0 (86.2)	753.8 (85.2)	663.0 (86.5)	225.7 (94.9)	1653.0 (67.6)	565.8 (87.5)
	UltraPoor	0.607 (0.49)	-4401.4 (1.4)	-3675.1 (13.4)	-3946.8 (10.6)	-3682.7 (16.3)	-2913.7 (26.5)	-3494.3 (18.6)
	Unfront × UltraPoor	0.072 (0.27)	-4990.6 (38.8)	-4820.6 (50.9)	-5190.3 (50.1)	-11956.0 (13.9)	-72.79.2. (38.4)	-11318.1 (16.5)
	WithGrace × UltraPoor	0.027 (0.39)	7853.7 (16.0)	12010.9 (12.4)	12438.2 (12.1)	17672.2 (2.6)	12925.5 (10.6)	18530.2 (2.1)
	$InKind \times UltraPoor$	0.001 (0.34)	-2374.8 (56.0)	-7673.3 (25.0)	-7317.5 (27.3)	-4070.1 (55.5)	-5286.5 (43.1)	-5210.4 (45.8)
	rd 3	0.342 (0.47)	11091.4 (0.0)	11857.3 (0.0)	11951.4 (0.0)	15117.8 (0.0)	13734.7 (0.0)	15239.7 (0.0)
	UltraPoor × rd 3	0.204 (0.40)	-1003.0 (66.0)	516.1 (86.9)	657.1 (83.4)	-254.1 (94.3)	1445.2 (64.8)	-248.6 (94.4)
	Upfront × rd 3	0.276 (0.45)	4615.6 (22.0)	6530.5 (16.9)	6475.1 (17.4)	4687.2 (38.2)	6412.1 (20.7)	5093.6 (34.4)
	WithGrace × rd 3	0.172	5171.7	5725.7	5821.4	8946.5	4951.5	8523.7 (13.9)
	InKind × rd 3	(0.38)	(22.2) -4648.9	(31.0) -5751.9	(30.6) -5818.1	(12.1) -6226.3	(40.6) -3777.0	-6219.2
	Unfront × UltraPoor × rd 3	(0.28)	(21.2) 5995.7	(23.0) 7274.5	(22.8) 7272.9	(19.1) 10253.3	(44.1) 8289.2	(19.0) 10365.1
	WithGrace × UltraPoor × rd 3	(0.16) 0.010	(35.7) -7803.1	(34.6) -9933.5	(34.5) -9825.2	(23.9) -13068.3	(29.9) -9320.3	(23.8) -13166.5
	InKind × UltraPoor × rd 3	(0.23) -0.000	(32.3) 8973.0	(36.4) 8350.2	(37.1) 8183.4	(29.8) 16190.7	(40.3) 10615.5	(29.5) 16235.5
	rd 4	(0.19) 0.315	(15.7) 33254.0	(38.3) 34278.4	(39.4) 34425.1	(15.3) 43276.0	(28.1) 38751.8	(15.1) 43435.2
	UltraPoor × rd 4	(0.46) 0.195	(0.0) 1326.0	(0.0) 5120.1	(0.0) 5182.5	(0.0) 3517.4	(0.0) 7793.5	(0.0) 3550.7
	Upfront × rd 4	(0.40) 0.260	(69.4) 16807.9	(19.6) 18689.4	(19.1) 18591.2	(45.7) 10742.5	(5.8) 15985.1	(45.4) 11386.3
	WithGrace × rd 4	(0.44) 0.158	(1.8) 1838.0	(1.7) 2705.2	(1.7) 2867.5	(13.8) 10572.4	(4.8) 2134.2	(11.9) 9815.9
	InKind × rd 4	(0.37) 0.079	(82.0) -3353.5	(77.3) -6323.5	(76.2) -6254.3	(24.1) -7316.6	(83.0) -2986.7	(27.7) -7447.7
	Unfront × UltraPoor × rd 4	(0.27) 0.024	(59.9) 11728.8	(41.5) 2587.1	(42.3) 2841.0	(33.4)	(69.8) 2409.2	(32.7) 2475.5
	WithGrace × UltraPoor × rd 4	(0.16) 0.008	(23.3) -11027.8	(78.9) -6675.0	(76.8) -6560.5	(85.5) -1710.8	(81.9) -4616.5	(84.8) -1889.3
	InKind × UltraPoor × rd 4	(0.22) -0.001	(32.8) 7203.5	(61.2) 1976.4	(61.9) 1482.3	(91.0) 9217.4	(73.0) 5315.3	(90.1) 9257.8
	HadCattle	(0.19)	(42.8)	(87.4)	(90.6)	(50.2) 7582.1	(67.5)	(50.0) 10659.0
	HadCattle × rd 3	(0.44)				(39.0) -1866.5		(27.5) -1972.8
	HadCattle × rd 4	(0.29)				(57.2) 9461.2		(54.7) 9207.2
	FloodInRd1	(0.28)			128.9	(17.2)	201.0	(18.3)
		0.414 (0.49)			(96.8)	(51.2)	281.8 (93.7)	2505.8 (49.3)
	Head literate0	0.149 (0.36)			-711.2 (86.2)	-2950.9 (49.2)	-3405.8 (42.2)	-2820.6 (51.6)
	net asset value	10261.899 (15197.09)		0.8 (0.0)	0.8 (0.0)	(32.3)	0.7 (4.7)	0.9 (5.1)
	HHsize0	4.538 (1.35)			2223.2 (4.4)	1786.3 (16.5)	2307.3 (5.9)	1709.0 (18.1)
	HadCattle × Unfront	0.021 (0.20)				21676.1 (14.7)		21771.8 (14.2)
	HadCattle \times Upfront \times rd 3	0.006 (0.12)				6500.6 (50.0)		5986.2 (53.4)
	HadCattle \times Unfront \times rd 4	0.007 (0.11)				15901.0 (47.3)		15368.2 (48.6)
	HadCattle × WithGrace	-0.003 (0.26)				-16928.5 (23.0)		-16098.1 (26.4)
	HadCattle \times WithGrace \times rd 3	-0.001 (0.15)				-36121.1 (0.1)		-35677.0 (0.1)
	HadCattle \times WithGrace \times rd 4	-0.001 (0.14)				-58061.6 (1.1)		-57212.1 (1.3)
	HadCattle × InKind	-0.012 (0.21)				8136.2 (27.1)		6990.4 (34.0)
	HadCattle \times InKind \times rd 3	-0.004 (0.12)				25228.8 (0.7)		25217.6 (0.6)
	HadCattle × InKind × rd 4	-0.005 (0.11)				34359.3 (3.7)		34313.3 (3.7)
	NumCattle0	0.380 (0.73)		158			-2822.6 (75.4)	-13899.9 (24.5)
	mean of dependent variable $T = 2$		31787 42	31787 13	31787 13	31787 13	31787 10	31787

III.5.8 Net assets: Assets+Livestock-GUK Debt-Other Debts

Net assets = Assets + net saving - debt to GUK - debts to relatives and money lenders. Assets use only items observed for all 4 rounds for household assets *including* radios and cassette players (which have possibly large errors).

```
Number of obs by Arm and attrition
           AttritIn
Arm
             2 3
                   4
                        9 Sum
 traditional 6 4 20 144 174
 large
            5 2 1 191 199
 large grace 22 3
                   3 170 198
               5 13 176 199
 cattle
             5
            38 14 37 681 770
Number of obs by membership status and attrition
                   AttritIn
BStatus
                     2 3
                           4 9 Sum
                           8 575 597
                     8
                         6
 borrower
 pure saver
                     0
                         0
                            0
                               0
 individual rejection
                     9
                        4
                            1
                              75
                                   89
                     9
                        4
                           0 55
                                   68
 group rejection
 rejection by flood
                    12 0 28 0 40
                     38 14 37 705 794
 Sum
```

```
Error in eval(ei, envir): オブジェクト 'NeA1R8' がありません
```

```
[1] excl
[[1]]
NetValue ~ dummyLarge + dummyLargeGrace + dummyCattle
ΓΓ2]]
NetValue ~ dummyLarge + dummyLargeGrace + dummyCattle + NetValue0
[[3]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
{\tt NetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\
    dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 + dummyHadCows.Large +
    dummyHadCows.LargeGrace + dummyHadCows.Cattle
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0
[[6]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
    dummyHadCows.Large + dummyHadCows.LargeGrace + dummyHadCows.Cattle
[1] exclP
[[1]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
```

```
[[2]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[3]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[4]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
ΓΓ5]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[6]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 +
    NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] excla
[[1]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind + NetValue0
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + NetValue0
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 + dummyHadCows.LargeSize |+
    dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0
[[6]]
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
    dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[1] exclT
\Gamma\Gamma111
NetValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
```

[[2]]

```
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
       dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
       dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
       NetValue0
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
       dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
       dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
       NetValue0 + dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
       dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
       dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
       dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
ΓΓ5]]
{\tt NetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt Time.4} \ + \ {\tt dummyLargeGrace} \ + \ {\tt Time.4} \ + \ {\tt Time.4} \ + \ {\tt DummyLargeGrace} \ + \ {\tt Time.4} \ + \ {\tt Time.4} \ + \ {\tt DummyLargeGrace} \ + \ {\tt Time.4} \ + \ {\tt Time.4} \ + \ {\tt DummyLargeGrace} \ + \ {\tt Time.4} \ + \ 
       dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
       NetValue0
[[6]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
       dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
       NumCows0 + NetValue0 + dummyHadCows.Large + dummyHadCows.Time3 +
       dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
       dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
       dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
       dummyHadCows.Cattle.Time4
[1] exclTa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + NetValue0
ΓΓ3]]
NetValue \ \sim \ FloodInRd1 \ + \ Time.3 \ + \ Time.4 \ + \ dummyLargeSize \ + \ dummyWithGrace \ +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
```

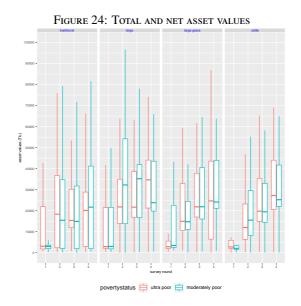
dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +

```
dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NetValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
    dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    NetValue0
[[6]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NumCows0 + NetValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[1] exclTP
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    NetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[3]]
NetValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    HHsize0 + HeadLiteracy0 + NetValue0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4
[[4]]
{\tt NetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \\
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
```

```
dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 +
    dummyHadCows.Cattle.Time4
[[5]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4
ΓΓ6]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
    dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
    dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[1] exclTPa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor | +
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
```

dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +

```
dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
   dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
   dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
   dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
   dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4
[[6]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
   dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor +
   dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
   dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
   dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4 +
    dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
    dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```



Source: Survey data.

Note: Top panel shows total gross asset values. Bottom panel shows total net asset values = total gross asset values - debt outstanding. Debt outstanding takes the value of the month immediately after the respective survey round interview. Net assets uses only assets observed for all 4 rounds in household assets.

FIGURE 25: NET ASSET VALUES AT ROUND 1

1.5 - 1.0 - 0.5 - 0.0 - 1000 10000 100000 NarrowNetValue

povertystatus <a> ultra poor <a> moderately poor

Source: Survey data.

Note: Net asset values = total gross asset values - debt outstanding. Debt outstanding takes the value of the month immediately after the respective survey round interview. Net assets uses only assets observed for all 4 rounds in household assets.

TABLE 80: ANCOVA ESTIMATION OF NET ASSETS

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		14585.8 (0.0)	11444.9 (0.0)	4940.3 (22.1)	14751.7 (0.1)	9090.1 (3.4)	13716.5 (0.3)
Large	0.048 (0.46)	14065.9 (0.0)	14591.9 (0.0)	14384.3 (0.0)	7238.2 (4.5)	11311.1 (0.7)	7314.8 (4.7)
LargeGrace	0.006 (0.43)	7649.2 (1.2)	7041.8 (5.6)	7234.6 (4.6)	2349.8 (45.7)	3847.5 (26.5)	2182.4 (49.8)
Cattle	0.009 (0.44)	6883.4 (0.2)	6589.3 (2.4)	6703.6 (2.1)	1419.3 (58.7)	4083.1 (11.7)	1492.2 (56.3)
HadCattle	0.265 (0.44)				6968.8 (25.6)		9519.6 (14.5)
FloodInRd1	0.414 (0.49)			302.7 (88.7)	1888.4 (42.2)	429.3 (85.9)	2083.2 (39.9)
Head literate0	0.149 (0.36)			-670.1 (80.6)	-1730.8 (55.9)	-2351.7 (40.7)	-1752.8 (55.7)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (36.8)	0.6 (4.8)	0.7 (3.8)
HHsize0	4.538 (1.35)			1464.3 (6.2)	1291.8 (16.8)	1546.9 (8.1)	1218.4 (19.1)
HadCattle × Large	0.024 (0.25)				18150.2 (10.2)		18479.7 (9.5)
HadCattle × LargeGrace	0.009 (0.23)				2418.7 (71.1)		3246.7 (61.0)
HadCattle × Cattle	-0.012 (0.21)				10713.3 (9.1)		10679.0 (8.0)
NumCattle0	0.380 (0.73)					-3331.3 (62.1)	-12731.1 (13.5)
mean of dependent variable $T = 2$		21897 42	21897 13	21897 13	21897 13	21897 10	21897 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.041 2017	0.126 1306	0.13 1306	0.088 1070	0.091 1176	0.09 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Net assets use only assets observed for all 4 rounds in household assets. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 81: ANCOVA ESTIMATION OF NET ASSETS BY ATTRIBUTES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		14585.8 (0.0)	11444.9 (0.0)	4940.3 (22.1)	14751.7 (0.1)	9090.1 (3.4)	13716.5 (0.3)
Unfront	0.063 (0.39)	14065.9 (0.0)	14591.9 (0.0)	14384.3 (0.0)	7238.2 (4.5)	11311.1 (0.7)	7314.8 (4.7)
WithGrace	0.014 (0.50)	-6416.7 (8.5)	-7550.1 (6.6)	-7149.7 (9.0)	-4888.4 (19.3)	-7463.6 (10.2)	-5132.5 (19.1)
InKind	0.009 (0.44)	-765.8 (77.4)	-452.6 (88.3)	-530.9 (85.8)	-930.5 (73.3)	235.7 (93.9)	-690.1 (80.6)
HadCattle	0.265 (0.44)				6968.8 (25.6)		9519.6 (14.5)
FloodInRd1	0.414 (0.49)			302.7 (88.7)	1888.4 (42.2)	429.3 (85.9)	2083.2 (39.9)
Head literate0	0.149 (0.36)			-670.1 (80.6)	-1730.8 (55.9)	-2351.7 (40.7)	-1752.8 (55.7)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (36.8)	0.6 (4.8)	0.7 (3.8)
HHsize0	4.538 (1.35)			1464.3 (6.2)	1291.8 (16.8)	1546.9 (8.1)	1218.4 (19.1)
HadCattle × Unfront	0.021 (0.20)				18150.2 (10.2)		18479.7 (9.5)
HadCattle × WithGrace	-0.003 (0.26)				-15731.5 (13.9)		-15233.0 (16.0)
HadCattle × InKind	-0.012 (0.21)				8294.6 (13.2)		7432.3 (17.7)
NumCattle0	0.380 (0.73)					-3331.3 (62.1)	-12731.1 (13.5)
mean of dependent variable $T = 2$		21897 42	21897 13	21897 13	21897 13	21897 10	21897 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.041 2017	0.126 1306	0.13 1306	0.088 1070	0.091 1176	0.09 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Net assets use only assets observed for all 4 rounds in household assets. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 82: ANCOVA ESTIMATION OF NET ASSETS BY PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		9846.6 (0.0)	6795.3 (2.7)	-166.6 (97.0)	8022.1 (9.8)	3297.9 (47.0)	6994.4 (15.5)
Large	0.048 (0.46)	13609.2 (0.0)	13772.5 (0.1)	13573.3 (0.1)	6523.4 (8.6)	10458.4 (1.4)	6586.4 (8.6)
LargeGrace	0.006 (0.43)	5904.1 (4.9)	4728.4 (20.2)	4894.7 (18.1)	-142.5 (96.4)	1685.6 (62.1)	-291.9 (92.7)
Cattle	0.009 (0.44)	5675.4 (1.1)	5305.6 (9.6)	5392.0 (8.7)	135.8 (96.2)	2761.9 (32.7)	215.5 (93.9)
rd 3	0.342 (0.47)	5637.3 (0.0)	5935.1 (0.0)	6002.1 (0.0)	8494.7 (0.0)	7501.6 (0.0)	8592.1 (0.0)
Large × rd 3	0.104 (0.30)	1040.0 (76.0)	2877.7 (48.7)	2863.9 (49.1)	2191.4 (65.3)	3249.5 (45.3)	2519.2 (60.6)
LargeGrace × rd 3	0.085 (0.28)	7109.0 (1.8)	9327.4 (1.8)	9400.5 (1.8)	10981.5 (1.8)	9269.2 (3.3)	10942.2 (1.9)
Cattle \times rd 3	0.087 (0.28)	3298.4 (24.1)	4431.4 (16.9)	4449.5 (16.3)	5346.2 (16.3)	5803.4 (7.2)	5332.1 (16.5)
rd 4	0.315 (0.46)	10333.5 (0.0)	10421.8 (0.0)	10531.5 (0.0)	14091.2 (0.0)	12042.9 (0.0)	14153.5 (0.0)
Large × rd 4	0.102 (0.30)	3138.6 (47.5)	4950.7 (26.4)	4896.4 (27.0)	4129.9 (37.8)	5601.6 (21.5)	4453.6 (34.2)
LargeGrace × rd 4	0.080 (0.27)	9211.8 (0.4)	12281.8 (0.2)	12367.1 (0.2)	15469.4 (0.1)	12581.3 (0.3)	15375.2 (0.1)
Cattle × rd 4	0.079 (0.27)	7367.6 (2.2)	8548.4 (1.3)	8680.4 (1.1)	9955.1 (0.8)	10302.6 (0.2)	9753.9 (0.9)
HadCattle	0.265 (0.44)	, ,	, ,	, ,	7844.7 (20.3)	. ,	10322.0 (11.8)
HadCattle × rd 3	0.092 (0.29)				-4533.7 (11.0)		-4613.9 (10.2)
HadCattle × rd 4	0.084 (0.28)				-2318.8 (54.3)		-2443.7 (52.1)
FloodInRd1	0.414 (0.49)			217.4 (92.0)	1956.7 (41.3)	377.2 (87.7)	2134.2 (39.4)
Head literate0	0.149 (0.36)			-231.7 (93.2)	-1625.8 (58.6)	-2035.7 (47.3)	-1618.0 (59.1)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (38.7)	0.6 (5.5)	0.7 (4.7)
HHsize0	4.538 (1.35)			1551.0 (5.0)	1341.8 (15.2)	1633.0 (6.6)	1273.0 (17.1)
HadCattle × Large	0.024 (0.25)				17624.6 (11.2)		17922.7 (10.5)
HadCattle \times Large \times rd 3	0.008 (0.15)				3450.3 (69.2)		3020.9 (72.8)
HadCattle × Large × rd 4	0.009 (0.14)				818.9 (94.2)		665.8 (95.2)
HadCattle × LargeGrace	0.009 (0.23)				7123.7 (32.2)		7883.5 (26.1)
HadCattle × LargeGrace × rd 3	0.003 (0.14)				-24243.5 (1.1)		-24292.4 (1.1)
HadCattle × LargeGrace × rd 4	0.004 (0.13)				-29993.9 (1.7)		-29696.8 (1.8)
HadCattle × Cattle	-0.012 (0.21)				11774.6 (8.6)		11719.1 (7.9)
HadCattle \times Cattle \times rd 3	-0.004 (0.12)				-3368.5 (65.9)		-3444.3 (65.1)
$HadCattle \times Cattle \times rd 4$	-0.005 (0.11)				-7135.7 (45.5)		-6917.8 (46.7)
NumCattle0	0.380 (0.73)					-2867.9 (66.8)	-12092.9 (15.4)
mean of dependent variable $T = 2$	·	21897 42	21897 13	21897 13	21897 13	21897 10	21897 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 \ N$	1081	0.07 2017	0.151 1306	0.156 1306	0.138 1070	0.127 1176	0.141 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets use only assets observed for all 4 rounds in household assets. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 83: ANCOVA ESTIMATION OF NET ASSETS BY ATTRIBUTES AND PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		9846.6 (0.0)	6795.3 (2.7)	-166.6 (97.0)	8022.1 (9.8)	3297.9 (47.0)	6994.4 (15.5)
Unfront	0.063 (0.39)	13609.2 (0.0)	13772.5 (0.1)	13573.3 (0.1)	6523.4 (8.6)	10458.4 (1.4)	6586.4 (8.6)
WithGrace	0.014 (0.50)	-7705.1 (3.4)	-9044.1 (2.4)	-8678.6 (3.5)	-6666.0 (7.1)	-8772.8 (4.5)	-6878.3 (7.3)
InKind	0.009 (0.44)	-228.6 (92.8)	577.2 (84.7)	497.3 (86.3)	278.3 (91.6)	1076.3 (71.2)	507.4 (85.1)
rd 3	0.342 (0.47)	5637.3 (0.0)	5935.1 (0.0)	6002.1 (0.0)	8494.7 (0.0)	7501.6 (0.0)	8592.1 (0.0)
Unfront \times rd 3	0.276 (0.45)	1040.0 (76.0)	2877.7 (48.7)	2863.9 (49.1)	2191.4 (65.3)	3249.5 (45.3)	2519.2 (60.6)
WithGrace \times rd 3	0.172 (0.38)	6069.0 (9.1)	6449.8 (15.5)	6536.6 (15.3)	8790.2 (6.4)	6019.7 (20.7)	8423.0 (7.5)
$InKind \times rd 3$	0.087 (0.28)	-3810.6 (20.9)	-4896.0 (19.3)	-4951.0 (18.9)	-5635.3 (12.4)	-3465.8 (36.3)	-5610.1 (12.4)
rd 4	0.315 (0.46)	10333.5 (0.0)	10421.8 (0.0)	10531.5 (0.0)	14091.2 (0.0)	12042.9 (0.0)	14153.5 (0.0)
Unfront × rd 4	0.260 (0.44)	3138.6 (47.5)	4950.7 (26.4)	4896.4 (27.0)	4129.9 (37.8)	5601.6 (21.5)	4453.6 (34.2)
WithGrace × rd 4	0.158 (0.37)	6073.2 (19.5)	7331.1 (14.4)	7470.7 (13.9)	11339.5 (2.9)	6979.7 (18.3)	10921.6 (3.4)
InKind × rd 4	0.079 (0.27)	-1844.2 (60.8)	-3733.4 (37.8)	-3686.7 (38.3)	-5514.3 (20.3)	-2278.7 (59.8)	-5621.3 (19.7)
HadCattle	0.265 (0.44)				7844.7 (20.3)		10322.0 (11.8)
HadCattle × rd 3	0.092 (0.29)				-4533.7 (11.0)		-4613.9 (10.2)
HadCattle × rd 4	0.084 (0.28)				-2318.8 (54.3)		-2443.7 (52.1)
FloodInRd1	0.414 (0.49)			217.4 (92.0)	1956.7 (41.3)	377.2 (87.7)	2134.2 (39.4)
Head literate0	0.149 (0.36)			-231.7 (93.2)	-1625.8 (58.6)	-2035.7 (47.3)	-1618.0 (59.1)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (38.7)	0.6 (5.5)	0.7 (4.7)
HHsize0	4.538 (1.35)			1551.0 (5.0)	1341.8 (15.2)	1633.0 (6.6)	1273.0 (17.1)
HadCattle × Unfront	0.021 (0.20)				17624.6 (11.2)		17922.7 (10.5)
HadCattle \times Upfront \times rd 3	0.006 (0.12)				3450.3 (69.2)		3020.9 (72.8)
$HadCattle \times Unfront \times rd 4$	0.007 (0.11)				818.9 (94.2)		665.8 (95.2)
HadCattle × WithGrace	-0.003 (0.26)				-10500.8 (31.2)		-10039.2 (34.1)
HadCattle \times WithGrace \times rd 3	-0.001 (0.15)				-27693.8 (0.1)		-27313.3 (0.1)
HadCattle × WithGrace × rd 4	-0.001 (0.14)				-30812.8 (1.0)		-30362.7 (1.1)
HadCattle × InKind	-0.012 (0.21)				4650.9 (41.6)		3835.7 (50.2)
HadCattle \times InKind \times rd 3	-0.004 (0.12)				20875.1 (0.5)		20848.1 (0.5)
HadCattle × InKind × rd 4	-0.005 (0.11)				22858.2 (2.9)		22779.1 (2.9)
NumCattle0	0.380 (0.73)					-2867.9 (66.8)	-12092.9 (15.4)
mean of dependent variable $T = 2$		21897 42	21897 13	21897 13	21897 13	21897 10	21897 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.07 2017	0.151 1306	0.156 1306	0.138 1070	0.127 1176	0.141 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets use only assets observed for all 4 rounds in household assets. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 84: ANCOVA ESTIMATION OF NET ASSETS BY ARM, POVERTY STATUS, AND PERIOD

covariates (Intercept)	mean/std	(1) 9459.5	(2) 6006.4	(3) -1241.0	(4) 7082.7	(5) 2480.2	(6) 5923.2
Large	0.048	(0.0) 13843.8	(8.0) 14510.3	(79.4) 14364.7	(15.4) 7508.6	(61.7) 11049.6	(24.5) 7649.0
LargeGrace	0.46)	(0.0) 6320.4	(0.0) 5241.1	(0.1) 5486.2	(5.0) 45.2	(1.2) 2043.9	(4.9) -114.9
Cattle	0.43)	(3.3)	(17.3) 5927.8	(15.4) 6103.5	(98.9) 622.4	(58.5)	(97.3) 768.2
UltraPoor	0.607	(0.5) -3853.9	(8.3) -3536.2	(7.2) -3741.7	(84.2) -3429.9	(31.7) -3093.2	(80.7) -3269.3
Large × UltraPoor	(0.49) 0.045	(1.2) -5124.2	(8.3) -5152.9	(6.6) -5420.0	(12.0) -10297.4	(15.4) -6934.7	(13.9) -9742.9
LargeGrace × UltraPoor	(0.37)	(31.2) 2507.0	(42.2) 5286.4	(41.8) 5334.0	(14.1) 5148.5	(33.5) 4198.2	(16.8) 6480.1
Cattle × UltraPoor	(0.35) 0.001	(43.3) -7.9	(27.8) -349.3	(25.6) -53.2	(28.3) 914.8	(41.5) -97.2	(19.5) 1232.1
rd 3	(0.34) 0.342	(99.8) 5622.4	(94.3) 5939.2	(99.2) 6005.6	(87.0) 8409.4	(98.6) 7403.5	(82.6) 8518.2
Large × rd 3	(0.47) 0.104 (0.30)	(0.0) 1719.3 (60.7)	(0.0) 3296.1	(0.0) 3255.2 (45.5)	(0.0) 3066.1 (54.2)	(0.0) 3960.2	(0.0) 3429.5 (40.7)
LargeGrace × rd 3	0.085 (0.28)	(60.7) 7933.9	(44.9) 10165.6	(45.5) 10190.4 (2.9)	(54.2) 12851.2 (1.3)	(39.1) 10298.2	(49.7) 12836.1
Cattle \times rd 3	0.087 (0.28)	(1.4) 3679.8 (19.7)	(2.8) 5087.6 (15.1)	5058.5 (14.9)	6788.3 (9.5)	(4.1) 6747.0 (6.6)	(1.3) 6779.7 (9.6)
UltraPoor × rd 3	0.204 (0.40)	-288.7 (89.2)	826.6 (77.5)	930.3 (74.8)	143.8 (96.5)	1529.2 (60.1)	134.5 (96.7)
Large × UltraPoor × rd 3	0.014 (0.21)	6909.8 (26.7)	8732.1 (24.8)	8732.3 (24.8)	11429.2 (17.1)	9920.7 (20.4)	11482.0 (17.2)
LargeGrace × UltraPoor × rd 3	0.010 (0.21)	-1198.5 (84.0)	-1377.4 (87.7)	-1296.5 (88.5)	-2623.9 (81.0)	528.9 (95.5)	-2610.2 (81.1)
Cattle \times UltraPoor \times rd 3	-0.000 (0.19)	6969.4 (9.2)	6109.7 (25.1)	6065.2 (25.6)	12323.3 (4.6)	9830.8 (9.0)	12377.2 (4.6)
rd 4	0.315 (0.46)	10411.2 (0.0)	10655.2 (0.0)	10759.0 (0.0)	14209.8 (0.0)	12224.6 (0.0)	14285.9 (0.0)
Large × rd 4	0.102 (0.30)	3379.0 (42.0)	4037.2 (37.8)	3965.4 (38.7)	3790.8 (43.3)	4808.3 (30.7)	4114.0 (39.7)
LargeGrace × rd 4	0.080 (0.27)	9376.5 (0.6)	11353.7 (1.4)	11395.8 (1.4)	15566.2 (0.3)	11699.1 (1.8)	15465.5 (0.3)
Cattle × rd 4	0.079 (0.27)	7206.8 (2.8)	7884.4 (4.3)	7966.7 (3.7)	10073.9 (1.4)	9756.3 (1.1)	9854.6 (1.6)
UltraPoor × rd 4	0.195 (0.40)	2844.1 (26.0)	5151.7 (7.5)	5199.8 (7.3)	3773.1 (25.7)	6025.0 (3.7)	3789.8 (25.6)
Large × UltraPoor × rd 4	0.016 (0.21)	10217.6 (19.4)	5895.4 (46.5)	6082.2 (45.0)	8060.4 (39.4)	7172.6 (37.8)	8124.8 (39.2)
LargeGrace × UltraPoor × rd 4	0.008 (0.20)	-1411.8 (81.4)	-3313.4 (66.7)	-3040.4 (69.6)	-2782.9 (76.7)	-1073.3 (89.6)	-2836.3 (76.3)
Cattle \times UltraPoor \times rd 4	-0.001 (0.19)	6055.2 (19.5)	1043.0 (84.6)	961.3 (86.0)	7501.8 (24.6)	4461.2 (43.0)	7483.2 (24.5)
HadCattle	0.265 (0.44)	,	, ,		8201.7 (18.5)	. ,	10868.0 (10.7)
HadCattle × rd 3	0.092 (0.29)				-4604.1 (10.5)		-4700.3 (9.5)
HadCattle × rd 4	0.084 (0.28)				-2566.2 (51.5)		-2711.1 (49.1)
FloodInRd1	0.414 (0.49)			152.9 (94.4)	1582.2 (51.0)	202.6 (93.4)	1813.4 (47.4)
Head literate0	0.149 (0.36)			-659.9 (81.7)	-2041.6 (49.9)	-2419.1 (41.3)	-1951.1 (52.0)
net asset value ₁	10261.899 (15197.09)		0.5 (0.0)	0.5 (0.0)	0.2 (41.6)	0.6 (5.0)	0.7 (4.0)
HHsize0	4.538 (1.35)			1621.4 (3.9)	1477.5 (10.9)	1713.7 (5.2)	1403.1 (12.7)
HadCattle × Large	0.024 (0.25)				16251.4 (14.2)		16436.7 (13.6)
HadCattle \times Large \times rd 3	0.008 (0.15)				2819.2 (72.2)		2354.9 (76.5)
HadCattle \times Large \times rd 4	0.009 (0.14)				1764.4 (87.5)		1601.7 (88.6)
HadCattle × LargeGrace	0.009 (0.23)				7162.6 (31.8)		8007.8 (24.5)
HadCattle × LargeGrace × rd 3	0.003 (0.14)				-27087.1 (0.5)		-27149.5 (0.4)
HadCattle × LargeGrace × rd 4	0.004 (0.13)				-30352.9 (2.1)		-30071.5 (2.2)
HadCattle × Cattle	-0.012 (0.21)				11221.7 (10.3)		11051.8 (9.6)
HadCattle \times Cattle \times rd 3	-0.004 (0.12)				-5263.1 (44.6)		-5335.2 (43.9)
HadCattle \times Cattle \times rd 4	-0.005 (0.11)		170		-7993.4 (42.1)		-7746.0 (43.3)
NumCattle0	0.380 (0.73)		170			-2855.6 (66.5)	-12408.5 (14.7)
mean of dependent variable $T-2$		21897 42	21897 13	21897 13	21897 13	21897 10	21897 13

Table 85: ANCOVA estimation of net assets by attributes, poverty status, and period

covariates (Intercept)	mean/std	(1) 9459.5	(2) 6006.4	(3) -1241.0	(4) 7082.7	(5) 2480.2	(6) 5923.2
Unfront	0.063	(0.0) 13843.8 (0.0)	(8.0) 14510.3	(79.4) 14364.7	(15.4) 7508.6 (5.0)	(61.7) 11049.6	(24.5) 7649.0
WithGrace	(0.39) 0.014 (0.50)	(0.0) -7523.5 (2.8)	(0.0) -9269.2 (1.7)	(0.1) -8878.6 (2.6)	(5.0) -7463.4 (3.5)	(1.2) -9005.7 (3.5)	(4.9) -7763.8 (3.5)
InKind	0.30)	-179.2 (94.2)	686.7 (81.6)	617 4 (82.9)	(3.3) 577.2 (82.7)	1219 0 (67.6)	883.1 (74.4)
UltraPoor	0.607 (0.49)	-3853.9 (1.2)	-3536.2 (8.3)	-3741.7 (6.6)	-3429.9 (12.0)	-3093.2 (15.4)	-3269.3 (13.9)
Unfront × UltraPoor	0.072 (0.27)	-5124.2 (31.2)	-5152.9 (42.2)	-5420.0 (41.8)	-10297.4 (14.1)	-6934.7 (33.5)	-9742.9 (16.8)
WithGrace × UltraPoor	0.027 (0.39)	7631.2 (12.6)	10439.3 (11.2)	10754.0 (11.0)	15445.9 (2.6)	11132.9 (10.1)	16223.0 (2.1)
InKind × UltraPoor	0.001 (0.34)	-2514.9 (44.3)	-5635.7 (25.5)	-5387.2 (27.8)	-4233.6 (43.5)	-4295.4 (39.4)	-5248.0 (34.3)
rd 3	0.342 (0.47)	5622.4 (0.0)	5939.2 (0.0)	6005.6 (0.0)	8409.4 (0.0)	7403.5 (0.0)	8518.2 (0.0)
UltraPoor \times rd 3	0.204 (0.40)	-288.7 (89.2)	826.6 (77.5)	930.3 (74.8)	143.8 (96.5)	1529.2 (60.1)	134.5 (96.7)
Upfront \times rd 3	0.276 (0.45)	1719.3 (60.7)	3296.1 (44.9)	3255.2 (45.5)	3066.1 (54.2)	3960.2 (39.1)	3429.5 (49.7)
WithGrace × rd 3	0.172 (0.38)	6214.6 (8.9)	6869.6 (15.7)	6935.2 (15.6)	9785.1 (5.3)	6338.0 (21.1)	9406.7 (6.2)
InKind × rd 3	0.087 (0.28)	-4254.1 (18.4)	-5078.0 (22.3)	-5131.9 (22.1)	-6062.9 (13.8)	-3551.2 (39.9)	-6056.5 (13.6)
Unfront × UltraPoor × rd 3	0.024 (0.16)	6909.8 (26.7)	8732.1 (24.8)	8732.3 (24.8)	11429.2 (17.1)	9920.7 (20.4)	11482.0 (17.2)
WithGrace \times UltraPoor \times rd 3	0.010 (0.23)	-8108.3 (27.4)	-10109.5 (31.8)	-10028.8 (32.4)	-14053.1 (22.3)	-9391.8 (35.9)	-14092.1 (22.2)
$InKind \times UltraPoor \times rd 3$	-0.000 (0.19)	8167.9 (15.7)	7487.1 (38.0)	7361.7 (39.0)	14947.2 (13.6)	9301.9 (28.4)	14987.4 (13.5)
rd 4	0.315 (0.46)	10411.2 (0.0)	10655.2 (0.0)	10759.0 (0.0)	14209.8 (0.0)	12224.6 (0.0)	14285.9 (0.0)
UltraPoor × rd 4	0.195 (0.40)	2844.1 (26.0)	5151.7 (7.5)	5199 8 (7.3)	3773.1 (25.7)	6025.0 (3.7)	3789.8 (25.6)
Upfront × rd 4	0.260 (0.44)	3379.0 (42.0)	4037.2 (37.8)	3965.4 (38.7)	3790.8 (43.3)	4808.3 (30.7)	4114.0 (39.7)
WithGrace × rd 4	0.158 (0.37)	5997.5 (18.2)	7316.5 (15.2)	7430.4 (14.8)	11775.4 (2.7)	6890.9 (19.6)	11351.5 (3.3)
InKind × rd 4	0.079 (0.27)	-2169.7 (55.4)	-3469.3 (44.5)	-3429.0 (45.1)	-5492.3 (23.7)	-1942.8 (67.1)	-5610.9 (22.9)
Unfront \times UltraPoor \times rd 4	0.024 (0.16)	10217.6 (19.4)	5895.4 (46.5)	6082.2 (45.0)	8060.4 (39.4)	7172.6 (37.8)	8124.8 (39.2)
WithGrace × UltraPoor × rd 4	0.008 (0.22)	-11629.4 (18.6)	-9208.8 (36.2)	-9122.6 (36.7)	-10843.4 (34.6)	-8245.9 (41.3)	-10961.1 (34.3)
InKind × UltraPoor × rd 4	-0.001 (0.19)	7467.0 (22.0)	4356.5 (58.9)	4001.8 (62.3)	10284.7 (26.2)	5534.5 (49.5)	10319.5 (26.0)
HadCattle	0.265 (0.44)				8201.7 (18.5)		10868.0 (10.7)
HadCattle × rd 3	0.092 (0.29)				-4604.1 (10.5)		-4700.3 (9.5)
HadCattle × rd 4	0.084 (0.28)			152.0	-2566.2 (51.5)	202.6	-2711.1 (49.1)
FloodInRd1	0.414 (0.49)			152.9 (94.4)	1582.2 (51.0)	202.6 (93.4)	1813.4 (47.4)
Head literate0	0.149 (0.36) 10261.899		0.5	-659.9 (81.7)	-2041.6 (49.9) 0.2	-2419.1 (41.3)	-1951.1 (52.0) 0.7
HHsize0	(15197.09) 4.538		(0.0)	(0.0) 1621.4	(41.6) 1477.5	(5.0) 1713.7	(4.0) 1403.1
HadCattle × Upfront	(1.35) 0.021			(3.9)	(10.9)	(5.2)	(12.7)
HadCattle × Upfront × rd 3	(0.20)				(14.2)		(13.6)
HadCattle × Unfront × rd 4	(0.12) 0.007				(72.2) 1764.4		(76.5) 1601.7
HadCattle × WithGrace	(0.11) -0.003				(87.5) -9088.9		(88.6) -8428.9
HadCattle × WithGrace × rd 3	(0.26) -0.001				(38.4) -29906.2		(42.7) -29504.4
HadCattle × WithGrace × rd 4	(0.15) -0.001				(0.1) -32117.3		(0.1) -31673.2
HadCattle × InKind	(0.14) -0.012				(0.9) 4059.1		(1.0)
HadCattle × InKind × rd 3	(0.21) -0.004				(49.4) 21824.0		(60.5) 21814.3
HadCattle × InKind × rd 4	(0.12) -0.005				(0.9) 22359.5		(0.8) 22325.5
NumCattle0	(0.11) 0.380				(4.7)	-2855.6	(4.7) -12408.5
mean of dependent variable	(0.73)	21897	171 21897	21897	21897	(66.5) 21897	(14.7) 21897
T=2		42	13	13	13	10	13

III.5.9 Net non-livestock assets: Non-livestock assets-GUK Debt-Other Debts

Net non-livestock assets = Non livestock assets + net saving - debt to GUK - debts to relatives and money lenders.

```
Number of obs by Arm and attrition
          AttritIn
            2 3 4 9 Sum
              4 20 144 174
 traditional 6
            5 2 1 191 199
 large
 large grace 22 3 3 170 198
 cattle 5 5 13 176 199
 Sum
           38 14 37 681 770
Number of obs by membership status and attrition
                  AttritIn
BStatus
                    2 3
                          4 9 Sum
                    8 6 8 575 597
 borrower
                    0 0 0 0
 pure saver
 individual rejection 9 4 1 75 89
                   9 4 0 55 68
 group rejection
 rejection by flood 12 0
                         28
                             0
                                40
                   38 14 37 705 794
```

Error in eval(ei, envir): オブジェクト 'NeA1R8' がありません

```
[1] excl
[[1]]
NetNLAssetValue ~ dummyLarge + dummyLargeGrace + dummyCattle
NetNLAssetValue ~ dummyLarge + dummyLargeGrace + dummyCattle +
   NetNLAssetValue0
[[3]]
NetNLAssetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + NetNLAssetValue0
ΓΓ4]]
NetNLAssetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyHadCows + HHsize0 + HeadLiteracy0 + NetNLAssetValue0 +
    dummyHadCows.Large + dummyHadCows.LargeGrace + dummyHadCows.Cattle
[[5]]
NetNLAssetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + NumCows0 + NetNLAssetValue0
NetNLAssetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 +
    NetNLAssetValue0 + dummyHadCows.Large + dummyHadCows.LargeGrace +
    dummyHadCows.Cattle
[1] exclP
[[1]]
NetNLAssetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
```

```
dummyInKind.UltraPoor
[[2]]
NetNLAssetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + NetNLAssetValue0 + dummyLargeSize.UltraPoor +
        dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
NetNLAssetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
        dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
        NetNLAssetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
        dummyInKind.UltraPoor
[[4]]
NetNLAssetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
        dummyWithGrace + dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 +
        NetNLAssetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
        dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
        dummyHadCows.InKind
ΓΓ5]]
{\tt NetNLAssetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyUltraPoor} \ + \ {\tt dummyLargeSize} \ + \ {\tt thmassetValue}
        dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
        NumCows0 + NetNLAssetValue0 + dummyLargeSize.UltraPoor +
        dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[6]]
NetNLAssetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
        dummyWithGrace + dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 +
       NumCows0 + NetNLAssetValue0 + dummyLargeSize.UltraPoor +
        dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyHadCows.LargeSize +
        dummyHadCows.WithGrace + dummyHadCows.InKind
[1] excla
[[1]]
NetNLAssetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
NetNLAssetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind +
        NetNLAssetValue0
[[3]]
NetNLAssetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
        dummyInKind + HHsize0 + HeadLiteracy0 + NetNLAssetValue0
[[4]]
{\tt NetNLAssetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLargeSize} \ + \ {\tt dummyWithGrace} \ +
        dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NetNLAssetValue0 +
        dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
NetNLAssetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
        dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + NetNLAssetValue0
[[6]]
NetNLAssetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 +
        NetNLAssetValue0 + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
        dummyHadCows.InKind
```

[1] exclT

```
[[1]]
NetNLAssetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4
[[2]]
NetNLAssetValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + NetNLAssetValue0
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetNLAssetValue0
ΓΓ4]]
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NetNLAssetValue0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 +
    dummyHadCows.Cattle.Time4
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    NetNLAssetValue0
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
   NumCows0 + NetNLAssetValue0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
    dummyHadCows.Cattle.Time4
[1] exclTa
[[1]]
NetNLAssetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
[[2]]
NetNLAssetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + NetNLAssetValue0
[[3]]
```

```
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetNLAssetValue0
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NetNLAssetValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSi|ze.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    NetNLAssetValue0
[[6]]
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
   NumCows0 + NetNLAssetValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[1] exclTP
[[1]]
NetNLAssetValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
NetNLAssetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + NetNLAssetValue0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4
[[3]]
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    {\tt dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +}
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetNLAssetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
```

```
[[4]]
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NetNLAssetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
    dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
    dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[[5]]
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    NetNLAssetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[6]]
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NumCows0 + NetNLAssetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
    dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
    dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[1] exclTPa
[[1]]
NetNLAssetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[2]]
NetNLAssetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + NetNLAssetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.|Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
```

[[3]]

```
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetNLAssetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[4]]
NetNLAssetValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NetNLAssetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
    NetNLAssetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[6]]
NetNLAssetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NumCows0 + NetNLAssetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```

TABLE 86: ANCOVA ESTIMATION OF NET NON-LIVESTOCK ASSETS

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		-645.9 (30.8)	-565.0 (49.4)	-65.5 (95.2)	-126.3 (91.8)	295.9 (79.1)	-185.8 (88.2)
Large	0.048 (0.46)	1356.9 (19.0)	2038.4 (10.9)	2279.0 (6.7)	1722.0 (21.0)	1776.7 (17.1)	1708.2 (21.8)
LargeGrace	0.006 (0.43)	-165.2 (87.0)	113.1 (93.4)	47.5 (97.1)	-987.0 (47.0)	-699.7 (60.2)	-992.9 (46.8)
Cattle	0.009 (0.44)	-34.8 (96.3)	156.0 (86.7)	293.7 (74.2)	-780.8 (41.9)	-700.7 (44.8)	-812.9 (40.6)
HadCattle	0.265 (0.44)				-607.5 (47.8)		274.2 (87.9)
FloodInRd1	0.414 (0.49)			-1359.0 (6.1)	-1566.3 (5.7)	-1694.9 (3.1)	-1554.2 (6.3)
Head literate0	0.149 (0.36)			-39.8 (94.6)	-95.8 (88.4)	17.9 (97.5)	-108.0 (87.0)
NetNLAssetValue()	2657.829 (2852.68)		0.1 (32.1)	0.0 (33.3)	0.2 (4.0)	0.2 (7.3)	0.2 (4.0)
HHsize0	4.538 (1.35)			-1.2 (99.6)	135.6 (62.5)	43.2 (87.5)	150.0 (60.2)
HadCattle × Large	0.024 (0.25)				2140.3 (41.7)		2058.3 (43.6)
HadCattle × LargeGrace	0.009 (0.23)				5010.7 (8.3)		5005.6 (8.2)
HadCattle × Cattle	-0.012 (0.21)				4731.7 (2.2)		4594.8 (3.0)
NumCattle0	0.380 (0.73)					-416.0 (48.4)	-621.9 (57.2)
mean of dependent variable $T = 2$		-329 42	-329 13	-329 13	-329 13	-329 10	-329 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.003 2017	0.005 1306	0.007 1306	0.011 1070	0.01 1176	0.011 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Non-livestock assets do not include livestock.

Table 87: ANCOVA estimation of Net Non-Livestock assets by attributes

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		-645.9 (30.8)	-565.0 (49.4)	-65.5 (95.2)	-126.3 (91.8)	295.9 (79.1)	-185.8 (88.2)
Unfront	0.063 (0.39)	1356.9 (19.0)	2038.4 (10.9)	2279.0 (6.7)	1722.0 (21.0)	1776.7 (17.1)	1708.2 (21.8)
WithGrace	0.014 (0.50)	-1522.2 (17.8)	-1925.2 (18.5)	-2231.5 (10.7)	-2709.0 (6.4)	-2476.4 (7.8)	-2701.2 (6.6)
InKind	0.009 (0.44)	130.4 (88.1)	42.9 (97.1)	246.2 (82.3)	206.2 (85.3)	-1.0 (99.9)	180.1 (87.0)
HadCattle	0.265 (0.44)				-607.5 (47.8)		274.2 (87.9)
FloodInRd1	0.414 (0.49)			-1359.0 (6.1)	-1566.3 (5.7)	-1694.9 (3.1)	-1554.2 (6.3)
Head literate0	0.149 (0.36)			-39.8 (94.6)	-95.8 (88.4)	17.9 (97.5)	-108.0 (87.0)
NetNLAssetValue0	2657.829 (2852.68)		0.1 (32.1)	0.0 (33.3)	0.2 (4.0)	0.2 (7.3)	0.2 (4.0)
HHsize0	4.538 (1.35)			-1.2 (99.6)	135.6 (62.5)	43.2 (87.5)	150.0 (60.2)
HadCattle × Unfront	0.021 (0.20)				2140.3 (41.7)		2058.3 (43.6)
HadCattle × WithGrace	-0.003 (0.26)				2870.5 (28.7)		2947.3 (27.2)
HadCattle × InKind	-0.012 (0.21)				-279.0 (90.4)		-410.8 (85.8)
NumCattle0	0.380 (0.73)					-416.0 (48.4)	-621.9 (57.2)
mean of dependent variable $T = 2$		-329 42	-329 13	-329 13	-329 13	-329 10	-329 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.003 2017	0.005 1306	0.007 1306	0.011 1070	0.01 1176	0.011 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Net non-livestockassets do not include livestock.

TABLE 88: ANCOVA ESTIMATION OF NET NON-LIVESTOCK ASSETS BY PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)	,	-4120.4 (0.0)	-4450.1 (0.0)	-4236.5 (0.0)	-3908.8 (0.0)	-3447.2 (0.1)	-3966.9 (0.0)
Large	0.048 (0.46)	745.9 (53.0)	1603.7 (27.3)	1849.9 (20.0)	1240.8 (40.9)	1256.7 (39.1)	1240.6 (41.2)
LargeGrace	0.006 (0.43)	-1721.5 (14.2)	-1442.9 (39.9)	-1513.8 (36.1)	-2624.6 (11.1)	-2247.0 (17.6)	-2629.4 (11.1)
Cattle	0.009 (0.44)	-1324.7 (12.4)	-766.6 (48.7)	-647.9 (55.2)	-1643.8 (14.2)	-1520.5 (17.0)	-1681.7 (13.8)
rd 3	0.342 (0.47)	4649.2 (0.0)	5059.8 (0.0)	5076.3 (0.0)	5370.0 (0.0)	5072.1 (0.0)	5388.3 (0.0)
Large × rd 3	0.104 (0.30)	2908.0 (1.0)	1925.8 (21.5)	1915.9 (22.0)	1787.9 (37.3)	2233.7 (20.5)	1852.4 (35.8)
LargeGrace × rd 3	0.085 (0.28)	7421.6 (0.0)	7467.5 (0.0)	7467.4 (0.0)	8343.5 (0.1)	7659.7 (0.1)	8341.9 (0.1)
Cattle \times rd 3	0.087 (0.28)	4930.4 (0.0)	3861.9 (0.9)	3926.3 (0.8)	3988.8 (4.1)	3963.6 (2.1)	3986.5 (4.1)
rd 4	0.315 (0.46)	7748.0 (0.0)	7914.9 (0.0)	7937.7 (0.0)	7895.3 (0.0)	7645.7 (0.0)	7904.8 (0.0)
Large × rd 4	0.102 (0.30)	2885.5 (6.2)	2201.2 (25.0)	2139.4 (26.4)	2865.1 (13.3)	3055.2 (11.9)	2905.4 (12.9)
LargeGrace × rd 4	0.080 (0.27)	7236.2 (0.0)	7417.7 (0.3)	7369.8 (0.4)	9231.2 (0.0)	8094.4 (0.2)	9236.4 (0.0)
Cattle × rd 4	0.079 (0.27)	6614.7 (0.0)	5611.5 (0.2)	5618.4 (0.2)	6444.4 (0.1)	5890.8 (0.2)	6441.1 (0.1)
HadCattle	0.265 (0.44)				-665.3 (55.3)		268.3 (89.2)
HadCattle × rd 3	0.092 (0.29)				58.9 (97.3)		51.4 (97.6)
HadCattle × rd 4	0.084 (0.28)				1180.3 (56.1)		1175.7 (56.3)
FloodInRd1	0.414 (0.49)			-1413.8 (4.9)	-1532.3 (6.6)	-1732.7 (2.7)	-1522.9 (7.1)
Head literate0	0.149 (0.36)			271.7 (65.0)	-8.8 (99.0)	210.2 (72.5)	0.1 (100.0)
NetNLAssetValue0	2657.829 (2852.68)		0.1 (1.2)	0.1 (1.0)	0.2 (6.1)	0.2 (9.6)	0.2 (6.9)
HHsize0	4.538 (1.35)			56.9 (80.8)	169.2 (55.1)	96.9 (72.7)	185.9 (52.7)
HadCattle × Large	0.024 (0.25)				2386.6 (49.1)		2262.8 (51.5)
HadCattle \times Large \times rd 3	0.008 (0.15)				-1111.6 (85.6)		-1171.7 (84.9)
HadCattle × Large × rd 4	0.009 (0.14)				-2954.3 (64.3)		-2958.0 (64.4)
HadCattle × LargeGrace	0.009 (0.23)				6685.1 (8.9)		6663.2 (8.8)
HadCattle × LargeGrace × rd 3	0.003 (0.14)				-8868.6 (18.0)		-8883.2 (17.8)
HadCattle \times LargeGrace \times rd 4	0.004 (0.13)				-11657.5 (12.0)		-11648.0 (12.2)
HadCattle × Cattle	-0.012 (0.21)				5578.7 (5.9)		5428.7 (7.3)
HadCattle \times Cattle \times rd 3	-0.004 (0.12)				-3749.8 (53.4)		-3765.7 (53.2)
$HadCattle \times Cattle \times rd \ 4$	-0.005 (0.11)				-4660.8 (46.7)		-4704.6 (46.2)
NumCattle0	0.380 (0.73)					-422.3 (48.2)	-660.9 (54.7)
mean of dependent variable $T = 2$		-329 42	-329 13	-329 13	-329 13	-329 10	-329 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.14 2017	0.113 1306	0.116 1306	0.113 1070	0.113 1176	0.113 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Net non-livestockassets do not include livestock.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 89: ANCOVA ESTIMATION OF NET NON-LIVESTOCK ASSETS BY ATTRIBUTES AND PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)	moun, ord	-4120.4	-4450.1	-4236.5	-3908.8	-3447.2	-3966.9
Unfront	0.063	(0.0) 745.9	(0.0) 1603.7	(0.0) 1849.9	(0.0) 1240.8	(0.1) 1256.7	(0.0) 1240.6
WithGrace	(0.39) 0.014	(53.0) -2467.4	(27.3) -3046.7	(20.0) -3363.7	(40.9) -3865.4	(39.1) -3503.6	(41.2) -3870.0
	(0.50)	(7.0)	(8.6)	(4.8)	(2.7)	(4.0)	(2.7)
InKind	0.009 (0.44)	396.8 (71.6)	676.3 (64.9)	865.8 (54.8)	980.8 (49.9)	726.5 (61.1)	947.7 (51.1)
rd 3	0.342 (0.47)	4649.2 (0.0)	5059.8 (0.0)	5076.3 (0.0)	5370.0 (0.0)	5072.1 (0.0)	5388.3 (0.0)
Unfront \times rd 3	0.276 (0.45)	2908.0 (1.0)	1925.8 (21.5)	1915.9 (22.0)	1787.9 (37.3)	2233.7 (20.5)	1852.4 (35.8)
WithGrace × rd 3	0.172 (0.38)	4513.6 (0.2)	5541.7 (0.5)	5551.5 (0.4)	6555.5 (0.1)	5426.0 (0.5)	6489.5 (0.1)
InKind × rd 3	0.087 (0.28)	-2491.2 (7.6)	-3605.6 (5.6)	-3541.1 (6.2)	-4354.7 (2.4)	-3696.2 (4.7)	-4355.4 (2.4)
rd 4	0.315 (0.46)	7748.0 (0.0)	7914.9 (0.0)	7937.7 (0.0)	7895.3 (0.0)	7645.7 (0.0)	7904.8 (0.0)
Unfront × rd 4	0.260 (0.44)	2885.5 (6.2)	2201.2 (25.0)	2139.4 (26.4)	2865.1 (13.3)	3055.2 (11.9)	2905.4 (12.9)
WithGrace × rd 4	0.158 (0.37)	4350.7 (2.1)	5216.6 (3.7)	5230.4 (3.6)	6366.1 (1.1)	5039.2 (4.3)	6330.9 (1.2)
InKind × rd 4	0.079 (0.27)	-621.5 (72.2)	-1806.2 (45.6)	-1751.4 (47.1)	-2786.8 (26.2)	-2203.6 (36.3)	-2795.2 (26.2)
HadCattle	0.265 (0.44)				-665.3 (55.3)		268.3 (89.2)
HadCattle × rd 3	0.092 (0.29)				58.9 (97.3)		51.4 (97.6)
HadCattle × rd 4	0.084 (0.28)				1180.3 (56.1)		1175.7 (56.3)
FloodInRd1	0.414 (0.49)			-1413.8 (4.9)	-1532.3 (6.6)	-1732.7 (2.7)	-1522.9 (7.1)
Head literate0	0.149 (0.36)			271.7 (65.0)	-8.8 (99.0)	210.2 (72.5)	0.1 (100.0)
NetNLAssetValue0	2657.829 (2852.68)		0.1 (1.2)	0.1 (1.0)	0.2 (6.1)	0.2 (9.6)	0.2 (6.9)
HHsize0	4.538 (1.35)			56.9 (80.8)	169.2 (55.1)	96.9 (72.7)	185.9 (52.7)
HadCattle × Upfront	0.021 (0.20)				2386.6 (49.1)		2262.8 (51.5)
HadCattle \times Upfront \times rd 3	0.006 (0.12)				-1111.6 (85.6)		-1171.7 (84.9)
HadCattle \times Upfront \times rd 4	0.007 (0.11)				-2954.3 (64.3)		-2958.0 (64.4)
HadCattle × WithGrace	-0.003 (0.26)				4298.5 (19.5)		4400.4 (18.1)
HadCattle \times WithGrace \times rd 3	-0.001 (0.15)				-7757.0 (1.6)		-7711.5 (1.7)
HadCattle \times WithGrace \times rd 4	-0.001 (0.14)				-8703.1 (8.9)		-8690.1 (8.9)
HadCattle × InKind	-0.012 (0.21)				-1106.4 (71.3)		-1234.6 (67.9)
HadCattle × InKind × rd 3	-0.004 (0.12)				5118.7 (9.3)		5117.5 (9.3)
HadCattle × InKind × rd 4	-0.005 (0.11)				6996.7 (16.9)		6943.4 (17.7)
NumCattle0	0.380 (0.73)					-422.3 (48.2)	-660.9 (54.7)
mean of dependent variable $T = 2$		-329 42	-329 13	-329 13	-329 13	-329 10	-329 13
T = 3 $T = 4$		134 569	81 377	81 377	38 327	40 362	36 327
$ar{R}^2 N$	1081	0.14 2017	0.113 1306	0.116 1306	0.113 1070	0.113 1176	0.113 1066

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Net non-livestockassets do not include livestock.

^{2.}

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 90: ANCOVA estimation of Net Non-Livestock assets by ARM, poverty status, and period

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)	•	-4269.3 (0.0)	-4926.9 (0.0)	-4702.4 (0.0)	-4359.5 (0.0)	-3959.8 (0.0)	-4456.4 (0.0)
Large	0.048 (0.46)	856.1 (44.1)	1987.3 (16.8)	2166.4 (13.2)	1551.3 (31.8)	1597.4 (29.7)	1559.5 (31.6)
LargeGrace	0.006	-1774.9	-1332.7	-1472.9	-2758.8	-2191.2	-2759.0
Cattle	0.009	(12.7) -1198.5	(44.8) -401.1	(38.9) -347.9	(11.6) -1410.7	(21.8) -1164.7	(11.6) -1445.2
Large × UltraPoor	(0.44) 0.045	(15.0) -335.0	(72.8) 258.3	(76.6) -394.1	(27.9) -1489.6	(37.2) -442.7	(27.1) -1432.9
LargeGrace × UltraPoor	(0.37)	(87.7) 3553.5	(93.5) 4745.7	(90.7) 4389.7	(71.6) 4386.4	(90.7) 4476.5	(72.8) 4557.1
Cattle × UltraPoor	(0.35) 0.001	(5.2) 953.6	(8.4) 2372.0	(10.7) 1942.4	(19.0) 949.8	(14.4) 1831.6	(17.3) 1024.0
rd 3	(0.34)	(48.8) 4623.9	(26.0) 5117.7	(34.0)	(68.9) 5467.5	(44.1) 5145.4	(66.6) 5487.8
	(0.47)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Large × rd 3	0.104 (0.30)	3134.7 (0.7)	1894.7 (30.2)	1876.9 (31.0)	1779.4 (42.1)	2194.1 (30.4)	1848.9 (40.5)
LargeGrace × rd 3	0.085 (0.28)	7722.5 (0.0)	7626.3 (0.1)	7623.5 (0.1)	8678.6 (0.1)	7838.6 (0.2)	8676.2 (0.1)
Cattle \times rd 3	0.087 (0.28)	5069.8 (0.0)	3843.7 (2.9)	3902.0 (2.8)	4113.0 (5.6)	3988.7 (5.5)	4110.0 (5.6)
Large × UltraPoor × rd 3	0.014 (0.21)	2356.7 (21.4)	123.1 (96.9)	51.4 (98.7)	584.9 (86.0)	-12.6 (99.7)	563.9 (86.5)
LargeGrace \times UltraPoor \times rd 3	0.010 (0.21)	-41.6 (98.7)	-1819.1 (68.2)	-1926.7 (66.5)	-2630.7 (61.9)	-1878.6 (70.1)	-2607.5 (62.3)
Cattle \times UltraPoor \times rd 3	-0.000 (0.19)	3158.7 (6.1)	1745.1 (55.2)	1704.7 (56.4)	2520.9 (40.6)	1709.9 (60.9)	2526.7 (40.6)
rd 4	0.315 (0.46)	7843.4 (0.0)	8170.5 (0.0)	8194.5 (0.0)	8121.7 (0.0)	7903.8 (0.0)	8132.3 (0.0)
Large × rd 4	0.102 (0.30)	2813.0 (6.3)	1633.1 (44.5)	1574.5 (46.2)	2476.9 (26.7)	2465.0 (28.4)	2520.2 (26.0)
LargeGrace × rd 4	0.080 (0.27)	7438.0 (0.0)	7303.3 (0.7)	7260.9 (0.7)	9362.7 (0.1)	7922.5 (0.5)	9372.2 (0.1)
Cattle × rd 4	0.079	6408.6	5018.2	5031.1	6129.2	5327.4	6125.3
Large × UltraPoor × rd 4	(0.27) 0.016	(0.0)	(1.5) -2763.4	(1.6) -2815.0	(0.7) -493.9	(1.9) -2351.1	(0.7) -445.1
LargeGrace × UltraPoor × rd 4	(0.21)	(90.1) -5241.3	(44.1) -7683.2	(43.5) -7781.7	(89.1) -6705.2	(53.8) -7258.0	(90.2) -6706.7
Cattle \times UltraPoor \times rd 4	(0.20) -0.001	(6.2) 1011.4	(9.7) -798.4	(9.4) -926.9	(21.9) 243.0	(14.4) -1145.3	(21.8) 268.0
HadCattle	(0.19) 0.265	(61.2)	(80.6)	(77.5)	(94.0) -472.7	(74.2)	(93.4) 731.2
HadCattle × rd 3	(0.44) 0.092				(67.2) -139.6		(70.4) -145.1
HadCattle × rd 4	(0.29)				(93.2) 755.2		(93.0) 750.7
FloodInRd1	(0.28) 0.414			-1431.0	(71.0) -1619.4	-1760.5	(71.1) -1593.0
Head literate()	(0.49)			(6.8) 238.5	(7.5) -86.1	(3.9)	(8.1) -60.5
NetNLAssetValue0	(0.36) 2657.829		0.1	(70.7)	(90.2)	(78.5)	(93.1)
HHsize0	(2852.68) 4.538		(0.6)	(0.5) 72.4	(3.3)	(6.1) 110.0	(3.5)
	(1.35)			(75.8)	(50.4)	(69.5)	(47.6)
HadCattle × Large	0.024 (0.25)				1997.7 (53.3)		1829.3 (56.8)
HadCattle × Large × rd 3	0.008 (0.15)				-985.6 (86.2)		-1044.7 (85.4)
HadCattle × Large × rd 4	0.009 (0.14)				-2305.6 (70.5)		-2302.4 (70.7)
HadCattle × LargeGrace	0.009 (0.23)				7155.8 (6.3)		7131.0 (6.1)
HadCattle × LargeGrace × rd 3	0.003 (0.14)				-9430.7 (13.8)		-9443.9 (13.6)
HadCattle × LargeGrace × rd 4	0.004 (0.13)				-12161.7 (9.9)		-12158.1 (10.1)
$HadCattle \times Cattle$	-0.012 (0.21)				5297.9 (4.8)		5087.8 (6.3)
HadCattle \times Cattle \times rd 3	-0.004 (0.12)				-3918.9 (47.0)		-3937.1 (46.7)
HadCattle × Cattle × rd 4	-0.005 (0.11)				-4393.5 (46.3)		-4451.1 (45.7)
NumCattle0	0.380				(-10.3)	-371.4	-846.2
mean of dependent variable $T = 2$	(0.73)	-329 42	-329 13	-329 13	-329 13	(54.3) -329 10	(44.4) -329 13
T = 2 $T = 3$ $T = 4$		134	81	81	38	40	36
$T = 4$ \bar{R}^2	1001	569 0.144	377 0.1 182	377 0.118	327 0.115	362 0.114	327 0.115
N	1081	2017	1306	1306	1070	1176	1066

Table 91: ANCOVA estimation of Net Non-Livestock assets by attributes, poverty status, and period

ЮБ							
covariates	mean/std	(1) -4269.3	(2) -4926.9	(3) -4702.4	(4) -4359.5	(5) -3959.8	(6) -4456.4
(Intercept)	0.062	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Unfront	0.063 (0.39)	856.1 (44.1)	1987.3 (16.8)	2166.4 (13.2)	1551.3 (31.8)	1597.4 (29.7)	1559.5 (31.6)
WithGrace	0.014 (0.50)	-2631.0 (5.4)	-3320.0 (7.4)	-3639.3 (4.5)	-4310.1 (2.5)	-3788.5 (3.7)	-4318.5 (2.5)
InKind	0.009 (0.44)	576.4 (60.4)	931.6 (54.8)	1125.0 (45.8)	1348.1 (38.0)	1026.4 (49.7)	1313.8 (39.1)
$Upfront \times UltraPoor$	0.072 (0.27)	-335.0 (87.7)	258.3 (93.5)	-394.1 (90.7)	-1489.6 (71.6)	-442.7 (90.7)	-1432.9 (72.8)
WithGrace × UltraPoor	0.027 (0.39)	3888.5 (11.4)	4487.4 (18.9)	4783.8 (17.7)	5876.0 (14.8)	4919.2 (17.0)	5990.0 (14.3)
InKind × UltraPoor	0.001 (0.34)	-2599.9 (13.7)	-2373.6 (31.0)	-2447.3 (29.9)	-3436.6 (20.1)	-2644.9 (26.9)	-3533.1 (19.1)
rd 3	0.342 (0.47)	4623.9 (0.0)	5117.7 (0.0)	5137.5 (0.0)	5467.5 (0.0)	5145.4 (0.0)	5487.8 (0.0)
Upfront × rd 3	0.276	3134.7	1894.7	1876.9	1779.4	2194.1	1848.9
WithGrace × rd 3	(0.45)	(0.7) 4587.8	(30.2)	(31.0)	(42.1) 6899.2	(30.4)	(40.5) 6827.3
InKind × rd 3	(0.38) 0.087	(0.2) -2652.7	(0.5) -3782.6	(0.5) -3721.5	(0.1) -4565.6	(0.5) -3849.9	(0.1) -4566.1
Unfront × UltraPoor × rd 3	0.024	(6.2) 2356.7	(5.2) 123.1	(5.8)	(2.5) 584.9	(4.6) -12.6	(2.5) 563.9
WithGrace × UltraPoor × rd 3	(0.16) 0.010	(21.4) -2398.2	(96.9) -1942.1	(98.7) -1978.1	(86.0) -3215.6	(99.7) -1866.0	(86.5) -3171.4
InKind × UltraPoor × rd 3	(0.23) -0.000	(33.9)	(59.5) 3564.2	(58.9) 3631.4	(44.9) 5151.5	(61.2) 3588.5	(45.5) 5134.1
rd 4	(0.19) 0.315	(18.4) 7843.4	(29.8) 8170.5	(29.0) 8194.5	(20.3) 8121.7	(30.1) 7903.8	(20.5) 8132.3
Unfront × rd 4	(0.46)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
WithGrace × rd 4	(0.44)	(6.3) 4624.9	(44.5) 5670.2	(46.2) 5686.3	(26.7) 6885.8	(28.4) 5457.6	(26.0) 6852.0
	(0.37)	(1.4)	(2.9)	(2.8) -2229.8	(0.9)	(3.5) -2595.1	(1.0)
InKind × rd 4	0.079 (0.27)	-1029.4 (56.1)	-2285.2 (35.9)	(37.2)	-3233.5 (21.1)	(30.0)	-3246.9 (21.1)
Upfront \times UltraPoor \times rd 4	0.024 (0.16)	332.6 (90.1)	-2763.4 (44.1)	-2815.0 (43.5)	-493.9 (89.1)	-2351.1 (53.8)	-445.1 (90.2)
WithGrace × UltraPoor × rd 4	0.008 (0.22)	-5573.9 (9.6)	-4919.7 (25.4)	-4966.7 (25.0)	-6211.4 (20.8)	-4906.9 (25.3)	-6261.6 (20.5)
$InKind \times UltraPoor \times rd \ 4$	-0.001 (0.19)	6252.8 (2.7)	6884.7 (8.6)	6854.8 (8.8)	6948.2 (13.9)	6112.7 (12.7)	6974.7 (13.8)
HadCattle	0.265 (0.44)				-472.7 (67.2)		731.2 (70.4)
HadCattle × rd 3	0.092 (0.29)				-139.6 (93.2)		-145.1 (93.0)
HadCattle × rd 4	0.084 (0.28)				755.2 (71.0)		750.7 (71.1)
FloodInRd1	0.414 (0.49)			-1431.0 (6.8)	-1619.4 (7.5)	-1760.5 (3.9)	-1593.0 (8.1)
Head literate0	0.149 (0.36)			238.5 (70.7)	-86.1 (90.2)	173.1 (78.5)	-60.5 (93.1)
NetNLAssetValue0	2657.829 (2852.68)		0.1 (0.6)	0.1 (0.5)	0.2 (3.3)	0.2 (6.1)	0.2 (3.5)
HHsize0	4.538 (1.35)		(313)	72.4 (75.8)	193.7 (50.4)	110.0 (69.5)	213.2 (47.6)
$HadCattle \times Upfront$	0.021 (0.20)			(70.0)	1997.7 (53.3)	(0).0)	1829.3 (56.8)
HadCattle × Unfront × rd 3	0.006 (0.12)				-985.6 (86.2)		-1044.7 (85.4)
HadCattle × Upfront × rd 4	0.007 (0.11)				-2305.6		-2302.4
HadCattle × WithGrace	-0.003				(70.5) 5158.1		(70.7)
HadCattle × WithGrace × rd 3	(0.26) -0.001				(14.0) -8445.1		(12.4) -8399.1
HadCattle × WithGrace × rd 4	(0.15) -0.001				(2.1) -9856.2		(2.1) -9855.7
HadCattle × InKind	(0.14) -0.012				(7.2) - <u>1857.8</u>		(7.2) -2043.2
HadCattle × InKind × rd 3	(0.21) -0.004				(55.1) 5511.8		(50.5) 5506.8
HadCattle \times InKind \times rd 4	(0.12) -0.005				(10.6) 7768.2		(10.6) 7707.0
NumCattle0	(0.11) 0.380				(14.9)	-371.4	(15.6) -846.2
mean of dependent variable	(0.73)	-329	-329	-329	-329	(54.3) -329	(44.4) -329
T = 2 $T = 3$		134	13	13 81	13 38	10	13 ⁻ 36
$T = 4$ \bar{R}^2		569 0.144	377	377 0.118	327 0.115	362 0.114	327 0.115
N N	1081	2017	0.1 183 1306	1306	1070	1176	1066

III.5.10 Net assets, experienced vs. inexperienced

```
LeaseInCattle
NumCows0 0
           1 Sum
    0
       539 94 633
      100
           0 100
    1
           0
    2
       30
              30
    3
         6
            0
    4
        2
           0 2
    5
           0 1
        1
    Sum 678 94 772
```

Even LeaseInCattle == 0 & OwnCattle == 0, some had Adi experiences.

```
OwnCattle
YearsSinceLastAdi 0 1 Sum
1 1 2 3
2 11 2 13
3 6 2 8
<NA> 483 171 654
Sum 501 177 678
```

Recode to Adi if OwnCattle == 0 & !is.na(YearsSinceLastAdi). This means, LeaseInCattle == 1 if OwnCattle = 0 but has experience of Adi in last 3 years.

If we (and we will) assume that the NumCows0 (computed from "abu_livestockownershipupdated.dta) as the truth, there are 52 false positives in OwnCattle (falsely reporting cattle ownership at baseline).

```
OwnCattle
NumCows0 0 1 Sum
    0
      581 52 633
    1
         0 100 100
    2
         0 30 30
    3
         0
            6
                6
            2
    4
         0
         0
             1
    Sum 581 191 772
```

NumCows are computed in read_clean_data.rnw by:

```
xloL[, NumCows := as.integer(NA)]
xloL[grepl("ow", LVcode), NumCows := as.integer(number_owned)]
xloL[, NumCows := NumCows[grepl("ow", LVcode)], by = .(hhid, survey)]
```

xloL is the raw data file "abu_livestockownershipupdated.dta.

We will correct Table 8a baseline data such that it becomes consistent with "abu_livestockownershipupdated.d

```
lvLv[NumCows0 == 0 & OwnCattle == 1L, OwnCattle := 0L]
lvLv[NumCows0 > 0 & is.na(OwnCattle), OwnCattle := 1L]
lvLv[, NumCows0 := NULL]
```

We will also correct LeaseInCattle from NA to 0, if NumCows0 > 0 (2 cases). Save it as lvLv, and use it in estimation.

```
OwnCattle
YearsSinceLastAdi 0 1 Sum
1 0 2 2
2 0 2 2
3 0 2 2
<NA> 521 133 654
Sum 521 139 660
```

```
OwnCattle
LeaseInCattle 0 1 Sum
0 521 139 660
1 112 0 112
Sum 633 139 772
```

```
AttritIn
             2 3
Arm
                     4
                         9 Sum
 traditional
              6
                4 20 144 174
                2
 large
              5
                     1 191 199
 large grace
             22
                 3
                     3 170 198
             5
                 5 13 176 199
 cattle
 Sum
             38
                14
                    37 681 770
                    AttritIn
BStatus
                      2
                          3
                              4
                                  9 Sum
                              8 575 597
 borrower
                      8
                          6
 pure saver
                      0
                                0
                                     0
 individual rejection
                      9
                          4
                            1
                                75
                                    89
                        4
                      9
                            0 55
                                    68
 group rejection
 rejection by flood
                      12
                          0
                            28
                                 0
                                    40
                      38
                         14
                             37 705 794
        AttritIn
                     9 Sum
TradGroup
         2 3 4
 planned 0 0 1 83 84
 twice
          0 0
                0 24
                        24
 double
          0
             0
                 0
                     0
 <NA>
          38 14 36 598 686
          38 14
 Sum
                 37 705 794
           AttritIn
                         9 Sum
Arm
                 3
                     4
              2
 traditional
              6
                  4
                    20 168 198
              5
                2
                    1 191 199
 large
 large grace 22
                3
                    3 170 198
             5
                 5 13 176 199
 cattle
             38 14
                    37 705 794
 Sum
           AttritIn
Arm
              2
                  3
                     4
                         9 Sum
            6 4 20 144 174
 traditional
             5 2 1 191 199
 large
 large grace 22 3 3 170 198
 cattle
             5 5 13 176 199
 Sum
             38 14 37 681 770
```

```
tee
                                                    2 3 4 Sum
Arm
                                      1
  traditional 174 166 162 133 635
    large 199 193 190 179 761
   large grace 198 176 173 155 702
  cattle
                                   199 194 187 151 731
                                   770 729 712 618 2829
    Sum
                                AttritIn
                                                        4 9 Sum
Arm
                                      2 3
   traditional 6 4 20 144 174
   large
                                     5 2 1 191 199
   large grace 22 3 3 170 198
   cattle 5 5 13 176 199
                                  38 14 37 681 770
    Sum
Number of obs based on roster
                                AttritIn
                                    2 3 4 9 Sum
Arm
   traditional 6 4 20 144 174
   large 5 2 1 191 199
  large grace 22 3 3 170 198
   cattle 5 5 13 176 199
Sum 38 14 37 681 770
Number of nonattriting obs but with lacking 4 entries in assets
                                ObPattern
                                  0111 1111 <NA> Sum
   traditional 1 1
                                                                9 11
                                        3
                                                                  9 12
    large
                                                       0
                                        5
                                                     1
    large grace
                                                                  9
                                                                           15
                                        4 1 20 25
    cattle
                    13 3 47 63
   Sum
[1] excl
\Gamma\Gamma111
{\tt NetValue} \ \sim \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt dummyOwnCattle0} \ + \ {\tt dummyDattle0} \ + 
          dummyAdiCattle0
[[2]]
NetValue \sim dummyLarge + dummyLargeGrace + dummyCattle + NetValue0 +
          dummyOwnCattle0 + dummyAdiCattle0
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
          HHsize0 + HeadLiteracy0 + NetValue0 + dummyOwnCattle0 + dummyAdiCattle0
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
         HHsize0 + HeadLiteracy0 + NetValue0 + dummyOwnCattle0.Large +
```

Number of obs based on assets

dummyAdiCattle0

[[5]]

dummyOwnCattle0.LargeGrace + dummyOwnCattle0.Cattle + dummyOwnCattle0 +

NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
HHsize0 + HeadLiteracy0 + NetValue0 + dummyOwnCattle0.Large +

dummyOwnCattle0.LargeGrace + dummyOwnCattle0.Cattle + dummyOwnCattle0 +

dummyAdiCattle0.Large + dummyAdiCattle0.LargeGrace + dummyAdiCattle0.Cattle |+

dummyAdiCattle0.Large + dummyAdiCattle0.LargeGrace + dummyAdiCattle0.Cattle |+

```
dummyAdiCattle0
[1] exclP
[[1]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyOwnCattle0 + dummyAdiCattle0
[[2]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyOwnCattle0 + dummyAdiCattle0
[[3]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyOwnCattle0 +
    dummyAdiCattle0
[[4]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyOwnCattle0.LargeSize +
    dummyOwnCattle0.WithGrace + dummyOwnCattle0.InKind + dummyOwnCattle0 +
    dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKi|nd +
    dummyAdiCattle0
[[5]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyOwnCattle0.LargeSize +
    dummyOwnCattle0.WithGrace + dummyOwnCattle0.InKind + dummyOwnCattle0 +
    dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKi|nd +
    dummyAdiCattle0
[1] excla
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
ΓΓ2]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind + NetValue0
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    HHsize0 + HeadLiteracy0 + NetValue0
[[5]]
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
    HHsize0 + HeadLiteracy0 + NetValue0
[1] exclT
[[1]]
NetValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
    dummyOwnCattle0 + dummyAdiCattle0
```

```
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
   NetValue0 + dummyOwnCattle0 + dummyAdiCattle0
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyOwnCattle0 + dummyAdiCattle0
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyOwnCattle0.Large + dummyOwnCattle0.Time3 + dummyOwnCattle0.Large.Time3
    dummyOwnCattle0.Time4 + dummyOwnCattle0.Large.Time4 + dummyOwnCattle0.LargeGrace +
    dummyOwnCattle0.LargeGrace.Time3 + dummyOwnCattle0.LargeGrace.Time4 +
    dummyOwnCattle0.Cattle + dummyOwnCattle0.Cattle.Time3 + dummyOwnCattle0.Cattle.Time4 -
    dummyOwnCattle0 + dummyAdiCattle0.Large + dummyAdiCattle0.Time3 +
    dummyAdiCattle0.Large.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 +
    dummyAdiCattle0.LargeGrace + dummyAdiCattle0.LargeGrace.Time3 +
    dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.Cattle +
    dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 +
    dummyAdiCattle0
NetValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyOwnCattle0.Large + dummyOwnCattle0.Time3 + dummyOwnCattle0.Large.Time3
    dummyOwnCattle0.Time4 + dummyOwnCattle0.Large.Time4 + dummyOwnCattle0.LargeGrace +
    dummyOwnCattle0.LargeGrace.Time3 + dummyOwnCattle0.LargeGrace.Time4 +
    dummyOwnCattle0.Cattle + dummyOwnCattle0.Cattle.Time3 + dummyOwnCattle0.Cattle.Time4 -
    dummyOwnCattle0 + dummyAdiCattle0.Large + dummyAdiCattle0.Time3 +
    dummyAdiCattle0.Large.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.|Time4 +
    dummyAdiCattle0.LargeGrace + dummyAdiCattle0.LargeGrace.Time3 +
    dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.Cattle +
    dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 +
    dummyAdiCattle0
[1] exclTa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
ΓΓ2]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + NetValue0
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
```

dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +

```
dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[[5]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[1] exclTP
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyOwnCattle0 + dummyAdiCattle0
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    NetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyOwnCattle0 + dummyAdiCattle0
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   HHsize0 + HeadLiteracy0 + NetValue0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4 + dummyOwnCattle0 + dummyAdiCattle0
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   HHsize0 + HeadLiteracy0 + NetValue0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4 + dummyOwnCattle0.Large + dummyOwnCattle0.Time3
    dummyOwnCattle0.Large.Time3 + dummyOwnCattle0.Time4 + dummyOwnCattle0.Large.Time4 +
    dummyOwnCattle0.LargeGrace + dummyOwnCattle0.LargeGrace.Time3 +
```

```
dummyOwnCattle0.LargeGrace.Time4 + dummyOwnCattle0.Cattle +
    dummyOwnCattle0.Cattle.Time3 + dummyOwnCattle0.Cattle.Time4 +
    dummyOwnCattle0 + dummyAdiCattle0.Large + dummyAdiCattle0.Time3 +
    dummyAdiCattle0.Large.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 +
    dummyAdiCattle0.LargeGrace + dummyAdiCattle0.LargeGrace.Time3 +
    dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.Cattle +
    dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 +
    dummyAdiCattle0
[[5]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   HHsize0 + HeadLiteracy0 + NetValue0 + dummyLarge.UltraPoor +
   dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
   dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
   dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
   dummyCattle.UltraPoor.Time4 + dummyOwnCattle0.Large + dummyOwnCattle0.Time3
   dummyOwnCattle0.Large.Time3 + dummyOwnCattle0.Time4 + dummyOwnCattle0.Large.|Time4 +
   dummyOwnCattle0.LargeGrace + dummyOwnCattle0.LargeGrace.Time3 +
   dummyOwnCattle0.LargeGrace.Time4 + dummyOwnCattle0.Cattle +
   dummyOwnCattle0.Cattle.Time3 + dummyOwnCattle0.Cattle.Time4 +
   dummyOwnCattle0 + dummyAdiCattle0.Large + dummyAdiCattle0.Time3 +
   dummyAdiCattle0.Large.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.|Time4 +
   dummyAdiCattle0.LargeGrace + dummyAdiCattle0.LargeGrace.Time3 +
    dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.Cattle +
    dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 +
    dummyAdiCattle0
[1] exclTPa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
   dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
   dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4 +
   dummyOwnCattle0 + dummyAdiCattle0
[[2]]
NetValue ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
   dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
   dummyInKind.UltraPoor.Time4 + dummyOwnCattle0 + dummyAdiCattle0
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
   dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
   dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
```

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dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyOwnCattle0 + dummyAdiCattle0
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyOwnCattle0.Time3 + dummyOwnCattle0.Time4 |+
    dummyOwnCattle0.LargeSize + dummyOwnCattle0.LargeSize.Time3 +
    dummyOwnCattle0.LargeSize.Time4 + dummyOwnCattle0.WithGrace +
    dummyOwnCattle0.WithGrace.Time3 + dummyOwnCattle0.WithGrace.Time4 +
    dummyOwnCattle0.InKind + dummyOwnCattle0.InKind.Time3 + dummyOwnCattle0.InKi
    dummyOwnCattle0 + dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 +
    dummyAdiCattle0.LargeSize + dummyAdiCattle0.LargeSize.Time3 +
    dummyAdiCattle0.LargeSize.Time4 + dummyAdiCattle0.WithGrace +
    dummyAdiCattle0.WithGrace.Time3 + dummyAdiCattle0.WithGrace.Time4 +
    dummyAdiCattle0.InKind + dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4 -
    dummyAdiCattle0
[[5]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyOwnCattle0.Time3 + dummyOwnCattle0.Time4 |+
    dummyOwnCattle0.LargeSize + dummyOwnCattle0.LargeSize.Time3 +
    dummyOwnCattle0.LargeSize.Time4 + dummyOwnCattle0.WithGrace +
    dummyOwnCattle0.WithGrace.Time3 + dummyOwnCattle0.WithGrace.Time4 +
    dummyOwnCattle0.InKind + dummyOwnCattle0.InKind.Time3 + dummyOwnCattle0.InKind.Time4 -
    dummyOwnCattle0 + dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 +
    dummyAdiCattle0.LargeSize + dummyAdiCattle0.LargeSize.Time3 +
    dummyAdiCattle0.LargeSize.Time4 + dummyAdiCattle0.WithGrace +
    dummyAdiCattle0.WithGrace.Time3 + dummyAdiCattle0.WithGrace.Time4 +
    dummyAdiCattle0.InKind + dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4 -
    dummyAdiCattle0
[1] excl
[[1]]
NetValue ~ dummyLarge + dummyLargeGrace + dummyCattle
{\tt NetValue} \ \sim \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt NetValue0}
[[3]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
{\tt NetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\
```

HHsize0 + HeadLiteracy0 + NetValue0

[1] exclP

```
[[1]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[3]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[4]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[1] excla
[[1]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind + NetValue0
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + NetValue0
[1] exclT
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
   NetValue0
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[1] exclTa
[[1]]
```

```
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + NetValue0
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
ΓΓ4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[1] exclTP
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyLarge.Time3 +
    dummyLargeGrace.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyLarge.Time3 +
    dummyLargeGrace.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   NetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyLarge.UltraPoor.Time
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4
[1] exclTPa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
```

dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +

```
dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
        dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
       dummyInKind.UltraPoor.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + NetValue0 + dummyLargeSize.UltraPoor +
       dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.|Time3 +
       dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
        dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
        dummyInKind.UltraPoor.Time4
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
       dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
       dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
       dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
        dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
        dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
        dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
       dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
       dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
       dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
       dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[1] excl
[[1]]
NetValue ~ dummyLarge + dummyLargeGrace + dummyCattle
NetValue ~ dummyLarge + dummyLargeGrace + dummyCattle + NetValue0
[[3]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
       HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
{\tt NetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \ {\tt dummyLargeGrace} \ + \\ {\tt tommyLargeGrace} \ + \\ {\tt tommyLargeGrace}
       HHsize0 + HeadLiteracy0 + NetValue0
[1] exclP
[[1]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
       dummyInKind.UltraPoor
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
        dummyInKind.UltraPoor
```

[[3]]

```
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
        dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[4]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
        dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[1] excla
[[1]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind + NetValue0
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
        HHsize0 + HeadLiteracy0 + NetValue0
ΓΓ4]]
{\tt NetValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLargeSize} \ + \ {\tt dummyWithGrace} \ + \ {\tt dummyInKind} \ + \\ {\tt dummyMithGrace} \ + \ {\tt dummyInKind} \ + \\ {\tt dummyMithGrace} \ + \ {\tt dummyMi
        HHsize0 + HeadLiteracy0 + NetValue0
[1] exclT
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
        dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
        dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
        dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
        dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
        NetValue0
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
        dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
        dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
        dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
        dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
        dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
        dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[1] exclTa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
        dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
        dummyInKind.Time4
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
        dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
        dummyInKind.Time4 + NetValue0
```

```
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
ΓΓ4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[1] exclTP
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyLarge.Time3 +
    dummyLargeGrace.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4
ΓΓ2]]
NetValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyLarge.Time3 +
    dummyLargeGrace.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    NetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4
[1] exclTPa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
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dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[1] excl
[[1]]
NetValue ~ dummyLarge + dummyLargeGrace + dummyCattle
NetValue ~ dummyLarge + dummyLargeGrace + dummyCattle + NetValue0
[[3]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + NetValue0
Γ1] exclP
[[1]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[3]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[4]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[1] excla
[[1]]
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```
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind + NetValue0
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
   HHsize0 + HeadLiteracy0 + NetValue0
[1] exclT
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
   NetValue0
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[1] exclTa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + NetValue0
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
```

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[1] exclTP
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyLarge.Time3 +
    dummyLargeGrace.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyLarge.Time3 +
    dummyLargeGrace.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    NetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4
[1] exclTPa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
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dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +

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dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4

[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
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TABLE 92: ANCOVA ESTIMATION OF NET ASSETS, CATTLE REARING EXPERIENCES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		15945.2 (0.0)	15189.6 (0.0)	7887.8 (4.2)	7999.5 (4.0)	7999.5 (4.0)
Large	0.290 (0.45)	10806.9 (0.0)	12050.8 (0.1)	11757.8 (0.2)	11064.0 (0.1)	11064.0 (0.1)
LargeGrace	0.241 (0.43)	5829.3 (2.2)	5762.7 (8.4)	5819.8 (7.3)	6286.5 (6.6)	6286.5 (6.6)
Cattle	0.261 (0.44)	4859.9 (1.4)	3927.5 (12.5)	3980.2 (12.1)	3871.8 (11.7)	3871.8 (11.7)
OwnCattle0	0.233 (0.42)	17177.8 (0.0)	10584.5 (4.4)	11131.4 (3.2)	9896.5 (5.7)	9896.5 (5.7)
AdiCattle0	0.134 (0.34)	7007.2 (0.0)	8757.2 (0.3)	8360.7 (0.5)	9312.1 (0.7)	9312.1 (0.7)
OwnCattle $0 \times \text{Large}$	0.080 (0.27)				13483.8 (22.4)	13483.8 (22.4)
OwnCattle0 × LargeGrace	0.063 (0.24)				-1520.6 (80.2)	-1520.6 (80.2)
$OwnCattleO \times Cattle$	0.047 (0.21)				6802.2 (21.4)	6802.2 (21.4)
AdiCattle0 × Large	0.044 (0.20)				-12183.0 (6.3)	-12183.0 (6.3)
AdiCattle0 × LargeGrace	0.018 (0.13)				-6674.4 (59.1)	-6674.4 (59.1)
$AdiCattle0 \times Cattle$	0.042 (0.20)				-6331.0 (34.4)	-6331.0 (34.4)
FloodInRd1	0.424 (0.49)			-48.8 (98.2)	-71.7 (97.4)	-71.7 (97.4)
Head literate0	0.146 (0.35)			-536.8 (84.1)	-303.0 (90.9)	-303.0 (90.9)
net asset value ₁	9146.377 (14606.38)		0.3 (15.0)	(20.7)	0.3 (15.3)	0.3 (15.3)
HHsize()	4.455 (1.36)			1713.7 (3.9)	1694.6 (4.2)	1694.6 (4.2)
mean of dependent variable $T = 2$		25247 42	25247 13	25247 13	25247 13	25247 13
T = 3 $T = 4$		130 550	79 362	79 362	79 362	79 362
$ar{R}^2 N$	1277	0.108 1952	0.125 1257	0.131 1257	0.143 1257	0.143 1257

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

Table 93: ANCOVA estimation of net assets by attributes, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		17653.9 (0.0)	14247.1 (0.0)	7551.4 (5.4)	7551.4 (5.4)	7551.4 (5.4)
Unfront	0.762 (0.43)	14155.3 (0.0)	14862.3 (0.0)	14638.1 (0.0)	14638.1 (0.0)	14638.1 (0.0)
WithGrace	0.483 (0.50)	-5784.8 (11.4)	-7054.8 (8.9)	-6640.5 (12.1)	-6640.5 (12.1)	-6640.5 (12.1)
InKind	0.251 (0.43)	-1138.1 (66.1)	-1220.1 (69.4)	-1321.0 (65.9)	-1321.0 (65.9)	-1321.0 (65.9)
FloodInRd1	0.422 (0.49)			369.4 (86.0)	369.4 (86.0)	369.4 (86.0)
Head literate()	0.143 (0.35)			-236.1 (93.0)	-236.1 (93.0)	-236.1 (93.0)
net asset value ₁	8901.382 (14389.93)		0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)
HHsize()	4.467 (1.38)			1493.1 (5.5)	1493.1 (5.5)	1493.1 (5.5)
mean of dependent variable $T = 2$		25247 42	25247 13	25247 13	25247 13	25247 13
T = 3 $T = 4$		134 569	81 377	81 377	81 377	81 377
$ar{R}^2 N$	1326	0.044 2017	0.124 1306	0.129 1306	0.129 1306	0.129 1306

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

Table 94: ANCOVA estimation of net assets by period, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)	,	13811.5 (0.0)	13666.6 (0.0)	6155.1	5803.3 (16.8)	5803.3
Large	0.290	11400.3	12307.8	(14.5) 12019.5	11380.8	(16.8)
LargeGrace	(0.45) 0.241	(0.0) 5802.5	(0.1) 5295.3	(0.2) 5330.4	(0.1) 5378.8	(0.1) 5378.8
Cattle	(0.43) 0.261	(1.8)	(10.8)	(9.8) 3913.1	(11.5)	(11.5)
	(0.44)	(0.8)	(14.6)	(14.3)	(14.4)	(14.4)
OwnCattle0	0.233 (0.42)	17232.3 (0.0)	10573.5 (4.5)	11129.1 (3.3)	10292.6 (5.1)	10292.6 (5.1)
AdiCattle0	0.134 (0.34)	7009.5 (0.0)	8752.3 (0.4)	8352.6 (0.5)	10232.8 (0.3)	10232.8 (0.3)
OwnCattle $0 \times Large$	0.080 (0.27)	, ,	,	. ,	12886.0 (24.7)	12886.0 (24.7)
OwnCattle0 × LargeGrace	0.063				2307.6	2307.6
OwnCattle0 × Cattle	(0.24) 0.047				(73.5) 7184.4	(73.5) 7184.4
AdiCattle0 × Large	(0.21) 0.044				(23.6) -12744.8	(23.6) -12744.8
AdiCattle0 × LargeGrace	(0.20) 0.018				(6.7) -9920.3	(6.7) -9920.3
	(0.13)				(41.2) -7163.2	(41.2)
$AdiCattle0 \times Cattle$	0.042 (0.20)				(27.6)	-7163.2 (27.6)
rd 3	0.350 (0.48)	2311.0 (3.3)	1891.0 (17.9)	1976.6 (16.5)	2338.6 (7.4)	2338.6 (7.4)
Large × rd 3	0.099 (0.30)	-3772.7 (24.4)	-1867.0 (65.5)	-1860.3 (65.7)	-1975.7 (61.1)	-1975.7 (61.1)
LargeGrace × rd 3	0.083 (0.28)	-606.9 (84.4)	1369.2 (73.9)	1465.7 (72.3)	2858.2 (43.9)	2858.2 (43.9)
Cattle \times rd 3	0.093	-2880.1	-1218.4	-1160.5	-974.8	-974.8
OwnCattle0 × rd 3	(0.29) 0.080	(31.2)	(72.9)	(73.9)	(77.2) -3147.6	(77.2) -3147.6
OwnCattle0 \times Large \times rd 3	(0.27)				(28.3) 3645.4	(28.3) 3645.4
	(0.16)				(69.0)	(69.0)
OwnCattle0 × LargeGrace × rd 3	(0.14)				-19197.0 (5.6)	-19197.0 (5.6)
OwnCattle0 \times Cattle \times rd 3	0.016 (0.13)				17.0 (99.8)	17.0 (99.8)
AdiCattle $0 \times rd 3$	0.046 (0.21)				-6709.3 (5.6)	-6709.3 (5.6)
AdiCattle $0 \times Large \times rd 3$	0.015 (0.12)				45.7 (99.7)	45.7 (99.7)
AdiCattle0 × LargeGrace × rd 3	0.006				9538.2	9538.2
AdiCattle $0 \times \text{Cattle} \times \text{rd } 3$	(0.08) 0.015				(24.5) 6007.4	(24.5) 6007.4
rd 4	(0.12) 0.333	3171.6	2625.0	2765.5	(27.8) 3201.7	(27.8) 3201.7
Large × rd 4	(0.47)	(1.2) -2027.7	(7.6) -716.9	(6.6) -795.0	(2.2) -1101.2	(2.2) -1101.2
	(0.30)	(60.1)	(86.8)	(85.4)	(77.5)	(77.5)
LargeGrace × rd 4	0.082 (0.27)	855.2 (78.4)	3074.0 (46.8)	3144.8 (46.2)	5032.0 (21.8)	5032.0 (21.8)
Cattle × rd 4	0.087 (0.28)	584.7 (83.1)	1820.5 (59.5)	1957.9 (56.4)	2356.8 (46.2)	2356.8 (46.2)
OwnCattle $0 \times rd 4$	0.076 (0.27)				-1506.4 (67.4)	-1506.4 (67.4)
OwnCattle0 \times Large \times rd 4	0.027				3209.8	3209.8
OwnCattle0 × LargeGrace × rd 4	(0.16) 0.021				(77.1) -19995.3	(77.1) -19995.3
OwnCattle0 \times Cattle \times rd 4	(0.14) 0.014				(10.2) -451.6	(10.2) -451.6
AdiCattle0 × rd 4	(0.12) 0.045				(96.4) -3682.3	(96.4) -3682.3
	(0.21)				(49.2)	(49.2)
AdiCattle0 × Large × rd 4	0.015 (0.12)				4803.1 (68.3)	4803.1 (68.3)
AdiCattle0 × LargeGrace × rd 4	$0.006 \\ (0.08)$				19044.6 (28.6)	19044.6 (28.6)
AdiCattle $0 \times \text{Cattle} \times \text{rd } 4$	0.014 (0.12)				2172.2 (74.8)	2172.2 (74.8)
FloodInRd1	0.424 (0.49)			-68.4 (97.4)	-106.0 (96.1)	-106.0 (96.1)
Head literate0	0.146			-393.3	-145.0	-145.0
net asset value ₁	(0.35) 9146.377		0.3	(88.3)	(95.7)	(95.7)
HHsize()	(14606.38) 4.455		(14.7)	(20. 4) 1743.4	(15.2) 1736.2	(15.2) 1736.2
	(1.36)	25245	252.45	(3.7)	(4.0)	(4.0)
mean of dependent variable $T = 2$		25247 42	25247 13	25247 13	25247 13	25247 13
T = 3 $T = 4$		130 550	79 362	79 362	79 362	79 362
$ar{R}^2 N$	1277	0.109 1952	$202^{\stackrel{0.122}{1257}}$	0.128 1257	0.138 1257	0.138 1257
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Table 95: ANCOVA estimation of net assets by attributes and period, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		15755.5 (0.0)	12807.0 (0.0)	5922.6 (16.1)	5922.6 (16.1)	5922.6 (16.1)
Unfront	0.762	14738.6	15099.4	14879.0	14879.0	14879.0
	(0.43)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
WithGrace	0.483 (0.50)	-6436.8 (6.9)	-7825.3 (5.2)	-7436.3 (7.4)	-7436.3 (7.4)	-7436.3 (7.4)
InKind	0.251	-880.0	-697.8	-800.1	-800.1	-800.1
	(0.43)	(71.7)	(81.0)	(77.6)	(77.6)	(77.6)
rd 3	0.350	2048.1	1779.2	1854.2	1854.2	1854.2
	(0.48)	(5.5)	(19.1)	(17.8)	(17.8)	(17.8)
Unfront \times rd 3	0.265	-3558.0	-1787.5	-1798.6	-1798.6	-1798.6
	(0.44)	(25.0)	(64.9)	(64.8)	(64.8)	(64.8)
WithGrace \times rd 3	0.170	3401.7	3492.1	3584.6	3584.6	3584.6
	(0.38)	(29.6)	(41.5)	(40.7)	(40.7)	(40.7)
InKind \times rd 3	0.090	-2221.7	-3132.6	-3182.4	-3182.4	-3182.4
	(0.29)	(44.6)	(40.0)	(39.3)	(39.3)	(39.3)
rd 4	0.333	2850.3	2536.5	2653.9	2653.9	2653.9
	(0.47)	(2.4)	(7.8)	(6.9)	(6.9)	(6.9)
Unfront × rd 4	0.258	-2144.5	-619.0	-663.3	-663.3	-663.3
	(0.44)	(57.6)	(88.0)	(87.2)	(87.2)	(87.2)
WithGrace × rd 4	0.163	2980.9	4007.5	4151.8	4151.8	4151.8
	(0.37)	(47.7)	(39.6)	(38.2)	(38.2)	(38.2)
InKind × rd 4	0.084	-441.7	-1680.7	-1624.0	-1624.0	-1624.0
	(0.28)	(88.9)	(67.6)	(68.6)	(68.6)	(68.6)
FloodInRd1	0.422 (0.49)			354.2 (86.6)	354.2 (86.6)	354.2 (86.6)
Head literate0	0.143 (0.35)			-108.9 (96.8)	-108.9 (96.8)	-108.9 (96.8)
net asset value ₁	8901.382 (14389.93)		0.5 (0.0)	0.5 (0.0)	0.5 (0.0)	0.5 (0.0)
HHsize0	4.467 (1.38)			1520.5 (5.2)	1520.5 (5.2)	1520.5 (5.2)
mean of dependent variable $T = 2$		25247 42	25247 13	25247 13	25247 13	25247 13
T = 3 $T = 4$		134 569	81 377	81 377	81 377	81 377
$ar{R}^2 N$	1326	0.044 2017	0.122 1306	0.126 1306	0.126 1306	0.126 1306

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

Table 96: ANCOVA estimation of net assets by ARM, poverty status, and period, cattle rearing experiences

CES						
covariates (Intercept)	mean/std	(1) 14992.3	(2) 14553.9	(3) 7023.0	(4) 6776.9	(5) 6776.9
Large	0.290	(0.0) 11635.0	(0.0) 12623.2	(12.3) 12394.0	(13.8) 11566.2	(13.8) 11566.2
LargeGrace	(0.45)	(0.0) 6025.5	(0.2) 5235.9	(0.3) 5303.1	(0.1) 5147.7	(0.1) 5147.7
Cattle	(0.43)	(1.2)	(14.4) 4121.2	(13.3)	(15.8)	(15.8)
OwnCattle0	(0.44) 0.233	(0.4) 17381.1	(17.8) 10891.0	(16.5) 11460.4	(18.4) 10532.5	(18.4) 10532.5
AdiCattle0	(0.42) 0.134	(0.0)	(3.8)	(2.8)	(4.5) 10264.4	(4.5) 10264.4
	(0.34)	(0.0)	(0.4)	(0.5)	(0.4) -2089.4	(0.4)
UltraPoor	0.602 (0.49)	-2606.6 (8.6)	-2041.2 (33.0)	(28.1)	(32.1)	-2089.4 (32.1)
OwnCattle0 × Large	0.080 (0.27)				12571.6 (26.4)	12571.6 (26.4)
OwnCattle0 × LargeGrace	0.063 (0.24)				2896.6 (67.3)	2896.6 (67.3)
OwnCattle $0 \times Cattle$	0.047 (0.21)				7285.0 (22.3)	7285.0 (22.3)
AdiCattle0 × Large	0.044 (0.20)				-12723.7 (8.8)	-12723.7 (8.8)
AdiCattle0 × LargeGrace	0.018 (0.13)				-9652.8 (43.3)	-9652.8 (43.3)
$AdiCattle0 \times Cattle$	$0.042 \\ (0.20)$				-7521.4 (26.3)	-7521.4 (26.3)
Large × UltraPoor	0.182 (0.39)	-4231.3 (36.8)	-6290.8 (32.2)	-6820.5 (30.7)	-7734.9 (27.6)	-7734.9 (27.6)
LargeGrace × UltraPoor	0.172 (0.38)	4469.0 (16.9)	4856.3 (34.5)	4847.8 (32.2)	3166.6 (51.2)	3166.6 (51.2)
Cattle × UltraPoor	0.163 (0.37)	490.8 (89.3)	-1506.7 (77.5)	-1370.6 (79.7)	-2381.7 (66.2)	-2381.7 (66.2)
rd 3	0.350 (0.48)	2381.8 (3.6)	1939.9 (21.4)	2026.5 (19.9)	2498.5 (7.9)	2498.5 (7.9)
Large × rd 3	0.099 (0.30)	-3443.3 (30.4)	-1485.4 (75.1)	-1507.4 (74.8)	-1674.4 (68.8)	-1674.4 (68.8)
LargeGrace × rd 3	0.083 (0.28)	-12.2 (99.7)	2345.4 (64.1)	2391.4 (63.6)	4252.3 (34.0)	4252.3 (34.0)
Cattle \times rd 3	0.093 (0.29)	-2777.0 (35.6)	-662.3 (87.2)	-644.2 (87.5)	-501.8 (89.3)	-501.8 (89.3)
UltraPoor × rd 3	0.209 (0.41)	-517.1 (80.3)	-106.1 (97.1)	14.2 (99.6)	-1029.3 (72.9)	-1029.3 (72.9)
Large × UltraPoor × rd 3	0.062 (0.24)	2436.7 (68.3)	7230.5 (36.2)	7216.4 (36.4)	7059.1 (32.5)	7059.1 (32.5)
LargeGrace × UltraPoor × rd 3	0.060	-4697.9	-4169.5	-4101.1	-8355.5	-8355.5 (38.9)
Cattle \times UltraPoor \times rd 3	(0.24) 0.058 (0.23)	(44.8) 3724.3 (20.7)	(65.7) 3677.1	(66.5) 3652.1	(38.9)	3119.3
OwnCattle0 × rd 3	(0.23) 0.080 (0.27)	(39.7)	(56.1)	(56.6)	(56.4) -3514.6	(56.4) -3514.6
OwnCattle0 \times Large \times rd 3	(0.27) 0.027				(23.1)	(23.1)
OwnCattle0 × LargeGrace × rd 3	(0.16) 0.021				(68.6) -21929.3	(68.6) -21929.3
OwnCattle0 \times Cattle \times rd 3	(0.14) 0.016				(3.1) -689.1	(3.1) -689.1
AdiCattle0 × rd 3	(0.13) 0.046				(93.1) -6814.4	(93.1) -6814.4
AdiCattle0 × Large × rd 3	(0.21) 0.015				(6.5) -367.0	(6.5) -367.0
AdiCattle0 × LargeGrace × rd 3	0.006				(97.5) 8409.5	(97.5) 8409.5
AdiCattle0 \times Cattle \times rd 3	(0.08) 0.015				(33.4) 5877.2	(33.4) 5877.2
rd 4	(0.12) 0.333	3249.8	2807.4	2939.5	(28.3) 3464.9	(28.3) 3464.9
Large × rd 4	(0.47)	(1.0) -1742.6	(8.1) -1243.2	(7.1) -1329.5	(1.9) -1672.1	(1.9) -1672.1
LargeGrace × rd 4	(0.30) 0.082	(64.7) 1175.4	(79.3) 2731.5	(77.9) 2766.2	(67.8) 5051.6	(67.8) 5051.6
Cattle × rd 4	(0.27) 0.087	(72.6) 622.7	(58.8) 1472.5	(58.6) 1574.3	(27.8) 1963.5	(27.8) 1963.5
UltraPoor × rd 4	(0.28)	(82.8) 1095.4	(72.0) 3089.4	(69.9) 3121.7	(58.2) 1973.0	(58.2) 1973.0
Large × UltraPoor × rd 4	(0.40)	(63.9) 7910.9	(28.3)	(27.9)	(49.9) 5803.8	(49.9) 5803.8
	(0.24) 0.059	(26.3) -1568.5	(48.8) -3878.4	(46.8) -3541.6	(44.1) -7459.2	(44.1) -7459.2
LargeGrace × UltraPoor × rd 4	(0.24)	(79.7)	(63.9)	(67.3)	(38.3)	(38.3)
Cattle × UltraPoor × rd 4	0.056 (0.23)	4323.3 (37.4)	1046.7 (86.6)	987.7 (87.5)	-197.1 (97.3)	-197.1 (97.3)
OwnCattle0 × rd 4	0.076 (0.27)				-1918.6 (60.0)	-1918.6 (60.0)
OwnCattle0 × Large × rd 4	0.027 (0.16)				4267.2 (69.6)	4267.2 (69.6)
OwnCattle0 × LargeGrace × rd 4	0.021 (0.14)	2	204		-20408.5 (10.7)	-20408.5 (10.7)
OwnCattle0 \times Cattle \times rd 4	0.014 (0.12)				243.6 (98.1)	243.6 (98.1)
A 1'C ((1 O)) 1 4	0.045				2000 5	2000 5

Table 97: ANCOVA estimation of net assets by attributes, poverty status, and period, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		14992.3 (0.0)	14553.9 (0.0)	7023.0 (12.3)	6776.9 (13.8)	6776.9 (13.8)
Unfront	0.792 (0.41)	11635.0 (0.0)	12623.2 (0.2)	12394.0 (0.3)	11566.2 (0.1)	11566.2 (0.1)
WithGrace	0.502 (0.50)	-5609.5 (4.7)	-7387.4 (6.4)	-7090.9 (8.6)	-6418.5 (8.3)	-6418.5 (8.3)
InKind	0.261 (0.44)	-523.8 (81.7)	-1114.7 (70.5)	-1076.0 (70.6)	-1293.3 (67.4)	-1293.3 (67.4)
OwnCattle0	0.233 (0.42)	17381.1 (0.0)	10891.0 (3.8)	11460.4 (2.8)	10532.5 (4.5)	10532.5 (4.5)
AdiCattle0	0.134 (0.34)	7197.7 (0.0)	8758.6 (0.4)	8371.7 (0.5)	10264 4 (0.4)	10264 4 (0.4)
UltraPoor	0.602 (0.49)	-2606.6 (8.6)	-2041.2 (33.0)	-2248.4 (28.1)	-2089.4 (32.1)	-2089.4 (32.1)
OwnCattle0 × Unfront	0.190 (0.39)				12571.6 (26.4)	12571.6 (26.4)
OwnCattle0 × WithGrace	0.110 (0.31)				-9675.0 (38.4)	-9675.0 (38.4)
OwnCattle0 × InKind	0.047 (0.21)				4388.4 (44.9)	4388.4 (44.9)
AdiCattle $0 \times Upfront$	0.104 (0.31)				-12723.7 (8.8)	-12723.7 (8.8)
AdiCattle0 × WithGrace	0.060 (0.24)				3070.8 (80.7)	3070.8 (80.7)
AdiCattle $0 \times InKind$	0.042 (0.20)				2131.4 (86.2)	2131.4 (86.2)
Unfront × UltraPoor	0.517 (0.50)	-4231.3 (36.8)	-6290.8 (32.2)	-6820.5 (30.7)	-7734.9 (27.6)	-7734.9 (27.6)
WithGrace × UltraPoor	0.335 (0.47)	8700.4 (6.9)	11147.1 (9.0)	11668.4 (8.7)	10901.5 (10.5)	10901.5 (10.5)
InKind × UltraPoor	0.163 (0.37)	-3978.2. (25.8)	-6362.9 (20.7)	-6218.4 (21.8)	-5548.3 (27.2)	-5548.3 (27.2)
rd 3	0.350 (0.48)	2381.8 (3.6)	1939.9 (21.4)	2026.5 (19.9)	2498.5 (7.9)	2498.5 (7.9)
UltraPoor × rd 3	0.209 (0.41)	-517.1 (80.3)	-106.1 (97.1)	(19.9) 14.2 (99.6)	-1029.3 (72.9)	-1029.3 (72.9)
Upfront × rd 3	0.275 (0.45)	-3443.3 (30.4)	-1485.4	-1507.4	-1674.4	-1674.4
WithGrace × rd 3	0.176	3431.0	(75.1) 3830.9 (40.6)	(74.8) 3898.7 (40.3)	(68.8) 5926.7 (16.0)	(68.8) 5926.7 (16.0)
InKind × rd 3	(0.38) 0.093 (0.29)	(30.6) -2764.7 (36.2)	(40.6) -3007.7 (45.6)	(40.3) -3035.6 (45.5)	(16.0) -4754.2 (20.8)	(16.0) -4754.2 (20.8)
Upfront \times UltraPoor \times rd 3	(0.29) 0.179 (0.38)	(36.2) 2436.7 (68.3)	(45.6) 7230.5 (26.2)	(45.5) 7216.4	(20.8) 7059.1	(20.8) 7059.1
WithGrace \times UltraPoor \times rd 3	(0.38) 0.117 (0.32)	(68.3) -7134.5	(36.2) -11400.1	(36.4) -11317.5	(32.5) -15414.7	(32.5) -15414.7
InKind × UltraPoor × rd 3	(0.32) 0.058 (0.23)	(30.9)	(25.1) 7846.6	(25.7) 7753.1	(14.9) 11474.8 (22.0)	(14.9) 11474.8 (22.0)
OwnCattle0 × rd 3	(0.23) 0.080 (0.27)	(14.1)	(36.6)	(37.4)	(22.9) -3514.6	(22.9) -3514.6
OwnCattle0 \times Upfront \times rd 3	(0.27) 0.064 (0.25)				(23.1)	(23.1) 3405.7
OwnCattle0 × WithGrace × rd 3	(0.25) 0.038 (0.10)				(68.6) -25335.0	(68.6) -25335.0
OwnCattle $0 \times InKind \times rd 3$	(0.19) 0.016 (0.12)				(0.4) 21240.2	(0.4) 2.1240.2
AdiCattle0 × rd 3	(0.13) 0.046				(1.1) -6814.4	(1.1) -6814.4
AdiCattle $0 \times \text{Unfront} \times \text{rd } 3$	(0.21) 0.036				(6.5) -367.0	(6.5) -367.0
AdiCattle0 × WithGrace × rd 3	(0.19) 0.021				(97.5) 8776.5	(97.5) 8776.5
AdiCattle0 × InKind × rd 3	(0.14)				(51.7) -2532.3	(51.7) -2532.3
rd 4	(0.12) 0.333	3249.8	2807.4	2939.5	(76.9) 3464.9	(76.9) 3464.9
UltraPoor × rd 4	(0.47) 0.205	(1.0) 1095.4	(8.1) 3089.4	(7.1) 3121.7	(1.9) 1973.0	(1.9) 1973.0
Upfront × rd 4	(0.40) 0.268	(63.9) -1742.6	(28.3) -1243.2	(27.9) -1329.5	(49.9) -1672.1	(49.9) -1672.1
WithGrace × rd 4	0.44)	(64.7) 2918.0	(79.3) 3974.7	(77.9) 4095.8	(67.8) 6723.7	(67.8) 6723.7
InKind × rd 4	(0.38) 0.087	(47.5) -552.7	(41.4) - <u>1258.</u> 9	(40.4) - <u>1</u> 191.9	(14.9) -3088.1	(14.9) -3088.1
Unfront × UltraPoor × rd 4	(0.28)	(86.5) 7910.9	(76.7) 5604.6	(78.0) 5857.7	(47.3) 5803.8	(47.3) 5803.8
WithGrace × UltraPoor × rd 4	(0.38) 0.115	(26.3) -9479.4	(48.8) -9483.0	(46.8) -9399.3	(44.1) -13263.0	(44.1) -13263.0
InKind × UltraPoor × rd 4	0.056	(22.8) 5891.9	(32.5) 4925.1	(33.1) 4529.3	(19.4) 7262.1	(19.4) 7262.1
OwnCattle0 × rd 4	(0.23) 0.076	(32.2)	(54.3)	(58.1)	(41.7) -1918.6	(41.7) -1918.6
OwnCattle0 \times Unfront \times rd 4	(0.27) 0.062				(60.0) 4267.2	(60.0) 4267.2
OwnCattle0 × WithGrace × rd 4	(0.24) 0.035				(69.6) -24675.7	(69.6) -24675.7
OwnCattle $0 \times InKind \times rd 4$	(0.18) 0.014	,	205		(2.1)	(2.1)
AdiCattle0 × rd 4	(0.12) 0.045				(3.6)	(3.6)
AutCattict X Id 4	(0.21)				-3890.3 (48.6)	-3890.3 (48.6)

Table 98: ANCOVA estimation of net assets, cattle rearing experiences

		mean/std		(1)			
	Adi	Own	None	Adi	Own	None	
(Intercept)				27111.8 (0.0)	27949.6 (0.0)	16216.8 (0.0)	
Large	0.327 (0.47)	0.343 (0.48)	0.262 (0.44)	1938.1 (70.5)	22056.6 (0.9)	9413.4 (0.0)	
LargeGrace	0.135 (0.34)	0.269 (0.44)	0.253 (0.44)	2293.8 (72.6)	9111.1 (6.9)	6001.6 (2.6)	
Cattle	0.316 (0.47)	0.202 (0.40)	0.271 (0.44)	1543.5 (74.1)	7360.3 (8.3)	5043.7 (3.3)	
FloodInRd1	0.526 (0.50)	0.444 (0.50)	0.396 (0.49)				
Head literate()	0.135 (0.34)	0.165 (0.37)	0.142 (0.35)				
net asset value ₁	1344.942 (6621.59)	31070.976 (15261.17)	2746.425 (3434.12)				
HHsize0	4.573 (1.24)	4.586 (1.41)	4.382 (1.37)				
mean of dependent variable $T = 2$				28555 9	39322 6	21496 27	
T = 3 T = 4				18 83	15 113	97 354	
$ar{R}^2 N$	171	297	809	-0.009 294	0.068 375	0.024 1283	

TABLE 98: ANCOVA ESTIMATION OF NET ASSETS, CATTLE REARING EXPERIENCES (CONTINUED)

						`
		(2)			(3)	
	Adi	Own	None	Adi	Own	None
(Intercept)	30183.2	22214.2	14968.2	3226.9	23580.6	6986.4
	(0.0)	(0.7)	(0.0)	(76.5)	(8.6)	(3.5)
Large	-1135.2	23231.1	10456.1	-3301.9	23487.4	9870.7
	(85.7)	(3.4)	(0.0)	(59.6)	(3.4)	(0.1)
LargeGrace	3029.4	4455.2	7814.4	2388.3	5185.1	7385.4
	(82.9)	(40.7)	(1.5)	(82.5)	(37.7)	(2.0)
Cattle	-2378.2	8513.2	3743.9	-2474.3	8933.3	3231.7
	(71.6)	(9.6)	(19.4)	(72.2)	(9.2)	(25.2)
FloodInRd1				-10782.3 (1.7)	1328.5 (81.5)	1193.6 (58.9)
Head literate()				6365.0 (38.0)	-3549.5 (52.8)	476.4 (86.9)
net asset value ₁	$ \begin{array}{c} 0.7 \\ (0.7) \end{array} $	0.2 (25.1)	0.3 (31.3)	0.6 (0.0)	(28.6)	0.3 (36.7)
HHsize()				7067.6 (0.3)	-411.5 (86.9)	1827.6 (1.1)
mean of dependent variable $T = 2$	28555	39322	21496	28555	39322	21496
	2	1	10	2	1	10
T = 3 $T = 4$	10	9	60	10	9	60
	48	92	222	48	92	222
$ar{R}^2 N$	0.005	0.086	0.032	0.122	0.079	0.042
	166	295	796	166	295	796

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

Table 99: ANCOVA estimation of net assets by attributes, cattle rearing experiences

		mean/std			(1)	
	Adi	Own	None	Adi	Own	None
(Intercept)				27111.8 (0.0)	27949.6 (0.0)	16216.8 (0.0)
Unfront	0.778 (0.42)	0.815 (0.39)	0.786 (0.41)	1938.1 (70.5)	22056.6 (0.9)	9413.4 (0.0)
WithGrace	0.450 (0.50)	0.471 (0.50)	0.524 (0.50)	355.6 (95.7)	-12945.6 (12.8)	-3411.8 (16.8)
InKind	0.316 (0.47)	0.202 (0.40)	0.271 (0.44)	-750.3 (90.5)	-1750.8 (69.8)	-957.9 (70.6)
FloodInRd1	0.526 (0.50)	0.444 (0.50)	0.396 (0.49)			
Head literate()	0.135 (0.34)	0.165 (0.37)	0.142 (0.35)			
net asset value ₁	1344.942 (6621.59)	31070.976 (15261.17)	2746.425 (3434.12)			
HHsize()	4.573 (1.24)	4.586 (1.41)	4.382 (1.37)			
mean of dependent variable $T = 2$				28555 9	39322 6	21496 27
T = 3 $T = 4$				18 83	15 113	97 354
$ar{R}^2 N$	171	297	809	-0.009 294	0.068 375	0.024 1283

Table 99: ANCOVA estimation of net assets by attributes, cattle rearing experiences (continued)

		(2)			(3)	
(Intercept)	Adi 30183.2 (0.0)	Own 22214.2 (0.7)	None 14968.2 (0.0)	Adi 3226.9 (76.5)	Own 23580.6 (8.6)	None 6986.4 (3.5)
Unfront	-1135.2 (85.7)	23231.1 (3.4)	10456.1 (0.0)	-3301.9 (59.6)	23487.4 (3.4)	9870.7 (0.1)
WithGrace	4164.6 (76.3)	-18775.9 (8.2)	-2641.8 (37.4)	5690.2 (57.2)	-18302.3 (11.5)	-2485.3 (40.4)
InKind	-5407.6 (69.7)	4058.0 (40.9)	-4070.4 (18.5)	-4862.6 (64.4)	3748.1 (45.5)	-4153.7 (16.2)
FloodInRd1				-10782.3 (1.7)	1328.5 (81.5)	1193.6 (58.9)
Head literate()				6365.0 (38.0)	-3549.5 (52.8)	476.4 (86.9)
net asset value ₁	0.7 (0.7)	0.2 (25.1)	0.3 (31.3)	0.6 (0.0)	0.2 (28.6)	0.3 (36.7)
HHsize()				7067.6 (0.3)	-411.5 (86.9)	1827.6 (1.1)
mean of dependent variable $T = 2$	28555 2	39322 1	21496 10	28555 2	39322 1	21496 10
T = 3 $T = 4$	10 48	9 92	60 222	10 48	9 92	60 222
$ar{R}^2$	0.005 166	0.086 295	0.032 796	0.122 166	0.079 295	0.042 796

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock.

Table 100: ANCOVA estimation of net assets by period, cattle rearing experiences

		mean/std			(1)	
	Adi	Own	None	Adi	Own	None
(Intercept)				26892.0 (0.0)	27292.3 (0.0)	13260.5 (0.0)
Large	0.327 (0.47)	0.343 (0.48)	0.262 (0.44)	2749.7 (59.1)	21764.1 (1.0)	10201.1 (0.0)
LargeGrace	0.135 (0.34)	0.269 (0.44)	0.253 (0.44)	1949.7 (75.5)	11084.6 (3.9)	5386.3 (3.6)
Cattle	0.316 (0.47)	0.202 (0.40)	0.271 (0.44)	1985.9 (66.0)	7598.3 (12.1)	5126.8 (2.7)
rd 3	0.345 (0.48)	0.343 (0.48)	0.354 (0.48)	-977.4 (71.3)	253.4 (92.2)	3679.8 (0.0)
Large × rd 3	0.111 (0.32)	0.114 (0.32)	0.090 (0.29)	-8254.5 (36.9)	267.1 (97.5)	-3863.7 (17.0)
LargeGrace × rd 3	0.047 (0.21)	0.091 (0.29)	0.088 (0.28)	-1387.6 (82.5)	-11280.8 (21.2)	2699.0 (29.1)
Cattle \times rd 3	0.111 (0.32)	0.071 (0.26)	0.098 (0.30)	-3657.0 (50.7)	-3022.4 (69.3)	-2475.6 (39.5)
rd 4	0.333 (0.47)	0.327 (0.47)	0.335 (0.47)	921.9 (79.6)	391.9 (90.1)	4520.5 (0.0)
Large × rd 4	0.111 (0.32)	0.114 (0.32)	0.090 (0.29)	-601.7 (95.4)	4020.2 (68.6)	-3983.4 (21.3)
LargeGrace × rd 4	0.047 (0.21)	0.091 (0.29)	0.087 (0.28)	5087.7 (62.0)	-8832.8 (36.0)	2886.7 (31.8)
Cattle \times rd 4	0.105 (0.31)	$0.061 \\ (0.24)$	0.093 (0.29)	-767.4 (90.9)	1293.0 (87.5)	791.6 (78.1)
FloodInRd1	0.526 (0.50)	0.444 (0.50)	0.396 (0.49)			
Head literate0	0.135 (0.34)	0.165 (0.37)	0.142 (0.35)			
net asset value ₁	1344.942 (6621.59)	31070.976 (15261.17)	2746.425 (3434.12)			
HHsize0	4.573 (1.24)	4.586 (1.41)	4.382 (1.37)			
mean of dependent variable $T = 2$				28555 9	39322 6	21496 27
T = 3 $T = 4$				18 83	15 113	97 354
$ar{R}^2 N$	171	297	809	-0.031 294	0.053 375	0.031 1283

TABLE 100: ANCOVA ESTIMATION OF NET ASSETS BY PERIOD, CATTLE REARING EXPERIENCES (CONTINUED)

		(2)			(3)	
(Intercept)	Adi 31829.0 (0.0)	Own 20501.0 (3.0)	None 12537.5 (0.0)	Adi 3882.8 (74.2)	Own 21758.4 (12.5)	None 4176.1 (26.4)
Large	-1183.5 (85.9)	23139.3 (3.7)	10945.5 (0.0)	-3319.5 (60.3)	23397.4 (3.7)	10379.3 (0.1)
LargeGrace	-1798.0 (89.5)	7103.4 (26.3)	6652.8 (2.9)	-2794.4 (78.9)	7870.4 (23.0)	6186.8 (4.3)
Cattle	-3240.6 (61.8)	8833.1 (13.4)	3695.7 (19.4)	-3402.0 (63.7)	9309.2 (11.6)	3145.2 (26.0)
rd 3	-2205.1 (53.4)	706.1 (80.1)	3679.9 (0.8)	-1217.6 (72.3)	729.8 (79.5)	3846.2 (0.7)
Large × rd 3	-2352.8 (83.8)	891.3 (92.2)	-2643.4 (46.5)	-2595.9 (82.1)	899.9 (92.3)	-2637.7 (46.9)
LargeGrace \times rd 3	18024.1 (2.6)	-14131.6 (16.1)	5097.1 (19.8)	19783.2 (0.2)	-14244.5 (16.7)	5230.4 (19.1)
Cattle \times rd 3	4495.1 (40.5)	-1870.6 (82.5)	-1924.8 (59.7)	3908.1 (44.4)	-1935.2 (82.1)	-1778.2 (62.3)
rd 4	881.3 (87.3)	2302.6 (49.8)	3812.7 (0.9)	2324.8 (68.1)	2220.8 (51.5)	3994.3 (0.7)
Large × rd 4	2635.2 (82.9)	950.8 (93.0)	-2233.2 (49.0)	2269.7 (85.4)	1053.4 (92.4)	-2250.4 (48.8)
LargeGrace × rd 4	28494.3 (12.5)	-13701.6 (24.4)	6145.4 (15.8)	30131.0 (10.3)	-13720.6 (25.2)	6359.5 (14.5)
Cattle \times rd 4	4039.4 (51.4)	1151.2 (90.5)	2075.6 (54.9)	5068.8 (41.3)	845.8 (93.2)	2256.1 (51.2)
FloodInRd1				-10818.3 (2.3)	1288.0 (82.4)	1142.1 (60.8)
Head literate()				6543.4 (37.6)	-3614.3 (53.2)	746.4 (79.6)
net asset value ₁	0.7 (0.8)	(25.6)	0.3 (32.7)	0.7 (0.1)	$ \begin{array}{c} 0.2 \\ (29.1) \end{array} $	0.3 (38.7)
HHsize0				7114.2 (0.5)	-380.9 (88.0)	1887.2 (0.9)
mean of dependent variable $T = 2$	28555 2	39322 1	21496 10	28555 2	39322 1	21496 10
T = 3 $T = 4$	10 48	9 92	60 222	10 48	9 92	60 222
$ar{R}^2$	-0.018 166	0.07 295	0.034 796	0.105 166	0.062 295	0.045 796

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodlnRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 100 and Table 100 (continued) show estimation after dividing into three subsamples: Individuals who had a cattle lease contract (Adi, n = 92) at the baseline, individuals who owned cattle at the baseline (Own, n = 137), and individuals who had neither (None, n = 505). The total of 734 is fewer than baseline sample size of 774 as we lost 40 observations by round 2. The number of individuals with Adi is small that makes the estimates inprecise. Specifications (2) - (4) show that the individuals of Own responded well to the non-Traditional lending by round 2, particularly so under Large and Large grace arms. Individuals of None have the smallest net asset holding under Traditional as indicated by the intercept terms. They have excess positive returns under all non-Traditional arms relative to the Traditional arm. Among the individuals of None, or who had no prior cattle rearing experience at the baseline, the Cattle arm gives the higher mean returns than the Large grace arm. As argued in the main text, it strongly suggests that the effective difference of the two arms, the managerial support program, resulted in a higher return for the None group.

The household size is positively correlated with the net asset values in Adi and None groups while not in Own group. This implies that there may be selection into cattle ownership at the baseline that requires a certain household size, either labour and/or a barn, and Own group may already have a way to acquire them as they become necessary. Returns to baseline net asset holding is meaningful only among the Own group, and estimates on other groups are less precise. Adi group has a large

point estimate, although the p value is greater than .1, which is consistent with a conjecture that the skills acquired through Adi have high returns but they are cash constrained.

Table 101: ANCOVA estimation of narrow net assets by attributes and period, cattle rearing experiences

		mean/std			(1)	
	Adi	Own	None	Adi	Own	None
(Intercept)	7 tui	Own	140110	26892.0 (0.0)	27292.3 (0.0)	13260.5
Unfront	0.778 (0.42)	0.815 (0.39)	0.786 (0.41)	2749.7 (59.1)	21764.1 (1.0)	10201.1 (0.0)
WithGrace	0.450 (0.50)	0.471 (0.50)	0.524 (0.50)	-800.0 (90.4)	-10679.5 (18.3)	-4814.8 (4.0)
InKind	0.316 (0.47)	0.202 (0.40)	0.271 (0.44)	36.2 (99.5)	-3486.3 (39.1)	-259.5 (90.8)
rd 3	0.345 (0.48)	0.343 (0.48)	0.354 (0.48)	-977.4 (71.3)	253.4 (92.2)	3679.8 (0.0)
Unfront \times rd 3	0.269 (0.44)	0.276 (0.45)	0.276 (0.45)	-8254.5 (36.9)	267.1 (97.5)	-3863.7 (17.0)
WithGrace \times rd 3	0.158 (0.37)	0.162 (0.37)	0.185 (0.39)	6866.9 (43.6)	-11547.9 (10.2)	6562.7 (2.9)
InKind \times rd 3	0.111 (0.32)	0.071 (0.26)	0.098 (0.30)	-2269.4 (64.1)	8258.4 (18.1)	-5174.5 (9.5)
rd 4	0.333 (0.47)	0.327 (0.47)	0.335 (0.47)	921.9 (79.6)	391.9 (90.1)	4520.5 (0.0)
Upfront × rd 4	0.263 (0.44)	0.266 (0.44)	0.269 (0.44)	-601.7 (95.4)	4020.2 (68.6)	-3983.4 (21.3)
WithGrace × rd 4	0.152 (0.36)	0.152 (0.36)	0.179 (0.38)	5689.4 (65.0)	-12853.0 (17.6)	6870.1 (5.7)
InKind × rd 4	0.105 (0.31)	0.061 (0.24)	0.093 (0.29)	-5855.1 (54.8)	10125.8 (18.8)	-2095.1 (52.5)
FloodInRd1	0.526 (0.50)	0.444 (0.50)	0.396 (0.49)			
Head literate()	0.135 (0.34)	0.165 (0.37)	0.142 (0.35)			
net asset value ₁	1344.942 (6621.59)	31070.976 (15261.17)	2746.425 (3434.12)			
HHsize0	4.573 (1.24)	4.586 (1.41)	4.382 (1.37)			
mean of dependent variable $T = 2$				28555 9	39322 6	21496 27
T = 3 $T = 4$				18 83	15 113	97 354
$ar{R}^2 N$	171	297	809	-0.031 294	0.053 375	0.031 1283

Table 101: ANCOVA estimation of net assets by attributes and period, cattle rearing experiences (continued)

		(2)			(3)	
(Intercept)	Adi 31829.0 (0.0)	Own 20501.0 (3.0)	None 12537.5 (0.0)	Adi 3882.8 (74.2)	Own 21758.4 (12.5)	None 4176.1 (26.4)
Upfront	-1183.5 (85.9)	23139.3 (3.7)	10945.5 (0.0)	-3319.5 (60.3)	23397.4 (3.7)	10379.3 (0.1)
WithGrace	-614.5 (96.5)	-16035.9 (13.3)	-4292.7 (13.2)	525.1 (95.8)	-15527.0 (17.3)	-4192.5 (14.9)
InKind	-1442.6 (91.6)	1729.8 (73.4)	-2957.1 (28.3)	-607.6 (95.4)	1438.8 (78.3)	-3041.6 (26.0)
rd 3	-2205.1 (53.4)	706.1 (80.1)	3679.9 (0.8)	-1217.6 (72.3)	729.8 (79.5)	3846.2 (0.7)
Unfront × rd 3	-2352.8 (83.8)	891.3 (92.2)	-2643.4 (46.5)	-2595.9 (82.1)	899.9 (92.3)	-2637.7 (46.9)
WithGrace \times rd 3	WithGrace \times rd 3 20376.9 -15022. (11.2) (4.0)	1.2) (4.0)	7740.5 (7.2)	22379.1 (6.4)	-15144.3 (4.5)	7868.1 (7.2)
InKind × rd 3	-13529.0 (8.3)	12261.0 (5.8)	-7021.9 (10.1)	-15875.1 (1.4)	12309.3 (6.1)	-7008.6 (10.8)
rd 4	881.3 (87.3)	2302.6 (49.8)	3812.7 (0.9)	2324.8 (68.1)	2220.8 (51.5)	3994.3 (0.7)
Unfront × rd 4	2635.2 (82.9)	950.8 (93.0)	-2233.2 (49.0)	2269.7 (85.4)	1053.4 (92.4)	-2250.4 (48.8)
WithGrace \times rd 4	25859.0 (22.6)	-14652.4 (12.4)	8378.7 (7.9)	27861.3 (19.3)	-14774.0 (12.9)	8609.9 (7.3)
InKind × rd 4	-24454.8 (18.8)	14852.8 (6.7)	-4069.8 (40.6)	-25062.3 (17.8)	14566.4 (6.7)	-4103.5 (40.9)
FloodInRd1				-10818.3 (2.3)	1288.0 (82.4)	1142.1 (60.8)
Head literate()				6543.4 (37.6)	-3614.3 (53.2)	746.4 (79.6)
net asset value ₁	0.7 (0.8)	0.2 (25.6)	(32.7)	0.7 (0.1)	$ \begin{array}{c} 0.2 \\ (29.1) \end{array} $	0.3 (38.7)
HHsize0				7114.2 (0.5)	-380.9 (88.0)	1887.2 (0.9)
mean of dependent variable $T = 2$	28555 2	39322 1	21496 10	28555 2	39322 1	21496 10
T = 3 $T = 4$	10 48	9 92	60 222	10 48	9 92	60 222
$ar{R}^2 N$	-0.018 166	0.07 295	0.034 796	0.105 166	0.062 295	0.045 796

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock.

Table 102: ANCOVA estimation of net assets by arm, poverty status, and period, cattle rearing experiences

		mean/std			(1)	
	Adi	Own	None	Adi	Own	None
(Intercept)				28159.5 (0.0)	31721.3 (0.0)	15972.9 (0.0)
Large	0.327 (0.47)	0.343 (0.48)	0.262 (0.44)	2259.6 (64.2)	16813.3 (3.2)	7281.2 (0.0)
LargeGrace	0.135 (0.34)	0.269 (0.44)	0.253 (0.44)	799.2 (89.3)	6932.7 (6.2)	2738.0 (20.9)
Large × UltraPoor	0.205 (0.40)	0.212 (0.41)	0.166 (0.37)	-9355.0 (31.9)	-533.3 (95.4)	-5309.2 (35.7)
LargeGrace × UltraPoor	0.094 (0.29)	$0.152 \\ (0.36)$	0.197 (0.40)	3786.8 (70.4)	26872.2 (0.0)	-4192.6 (30.9)
rd 3	0.345 (0.48)	0.343 (0.48)	0.354 (0.48)	-1164.0 (66.2)	316.3 (89.8)	3923.6 (0.1)
Large \times rd 3	$0.111 \\ (0.32)$	0.114 (0.32)	$0.090 \\ (0.29)$	-6610.5 (44.3)	2590.2 (62.0)	-2804.2 (29.3)
LargeGrace × rd 3	0.047 (0.21)	0.091 (0.29)	0.088 (0.28)	303.1 (94.9)	-9883.2 (13.7)	4308.9 (12.8)
Large \times UltraPoor \times rd 3	$0.070 \\ (0.26)$	0.071 (0.26)	0.057 (0.23)	1963.4 (91.5)	16263.2 (14.5)	-3236.3 (61.9)
LargeGrace × UltraPoor × rd 3	0.035 (0.18)	0.051 (0.22)	0.068 (0.25)	-8639.8 (51.8)	-403.1 (97.6)	-8434.5 (27.3)
rd 4	0.333 (0.47)	0.327 (0.47)	$0.335 \\ (0.47)$	1074.9 (76.0)	930.3 (75.9)	4775.3 (0.0)
Large × rd 4	0.111 (0.32)	0.114 (0.32)	0.090 (0.29)	382.7 (96.8)	3622.6 (60.4)	-4508.5 (12.2)
LargeGrace × rd 4	0.047 (0.21)	0.091 (0.29)	$0.087 \\ (0.28)$	5069.6 (58.9)	-10542.3 (16.6)	2755.4 (36.3)
Large × UltraPoor × rd 4	0.070 (0.26)	0.071 (0.26)	0.057 (0.23)	-5066.7 (77.0)	28136.9 (7.7)	894.0 (89.3)
LargeGrace × UltraPoor × rd 4	$0.035 \\ (0.18)$	0.051 (0.22)	$0.067 \\ (0.25)$	-409.3 (98.1)	-4978.1 (77.2)	-5254.2 (48.6)
FloodInRd1	0.526 (0.50)	0.444 (0.50)	0.396 (0.49)			
Head literate0	$0.135 \\ (0.34)$	$0.165 \\ (0.37)$	0.142 (0.35)			
net asset value ₁	1344.942 (6621.59)	31070.976 (15261.17)	2746.425 (3434.12)			
HHsize0	4.573 (1.24)	4.586 (1.41)	4.382 (1.37)			
mean of dependent variable $T = 2$				28555 9	39322 6	21496 27
T = 3 $T = 4$				18 83	15 113	97 354
$ar{R}^2 N$	171	297	809	-0.031 294	0.081 375	0.027 1283

Table 102: ANCOVA estimation of net assets by arm, poverty status, and period, cattle rearing experiences (continued)

(84.3) (91.8) (32.0) (83.7) (90.8) (31.3) rd 4 (522.7) (2278.8) (4376.2) (2347.9) (2192.6) (4561.1) (1.0) Large × rd 4 (487.2) (723.5) (-3810.9) (-905.2) (94.5) (90.7) (22.2) LargeGrace × rd 4 (24304.2) (-1500.2) (5927.3) (25321.1) (1487.6) (6104.7) (15.1) (9.9) (21.1) (15.0) (10.2) (20.5)			(2)			(3)	
Large 661.5 18077.1 8693.5 -1214.3 18322.4 8426.7 (0.1) LargeGrace -583.4 3456.5 4471.3 -1711.0 3383.6 4216.0 (96.6) (50.2) (9.5) (86.7) (50.1) (12.0) LargeGrace × UltraPoor -9583.7 -6630.6 -4899.0 (40.6) (57.6) (52.1) LargeGrace × UltraPoor 4425.4 20723.7 -2908.3 4984.7 21290.0 -2542.4 (78.3) (3.3) (60.8) (73.8) (3.6) (64.4) rd 3 -2071.7 569.3 4171.3 -746.6 616.9 4343.2 (57.1) (82.8) (1.8) (83.0) (81.5) (1.5) LargeGrace × rd 3 -4925.2 2486.2 -2033.1 -5296.3 2353.2 -2099.1 (66.2) (66.7) (64.7) (53.9) (10.0) (0.5) (7.7) (10.2) Large × UltraPoor × rd 3 429.4 (19542.1 (190.0) (190.0) (0.5) (7.7) (10.2) LargeGrace × UltraPoor × rd 3 (84.3) (91.8) (32.0) (83.7) (90.8) (31.3) (74.8) (12.0) (83.7) (90.8) (13.1) (12.0) LargeGrace × rd 4 487.2 723.5 -3810.9 -905.2 848.5 -3906.1 (10.1) (10.0) (10.2) (20.5) (20.7) (22.2) (20.7) (20.2) (21.1) (15.0) (10.2) (20.5)		Λdi	Own	None	Δdi	Own	None
LargeGrace	(Intercept)	30010.9	27352.3	14605.2	3463.0 (76.9)	31530.2	5689.6
Color							
LargeGrace × UltraPoor	· ·						
(78.3) (3.3) (60.8) (73.8) (3.6) (64.4) rd 3 -2071.7 (569.3 4171.3 -746.6 616.9 4343.2 (57.1) (82.8) (1.8) (83.0) (81.5) (1.5) Large × rd 3 -4925.2 2486.2 -2033.1 -5296.3 2353.2 -2099.1 (66.2) (64.7) (53.9) (64.2) (67.4) (52.9) LargeGrace × rd 3 15522.2 -13229.4 (7292.4 17584.9 -13356.4 7391.9 (10.0) (0.5) (7.7) (10.2) Large × UltraPoor × rd 3 429.4 19542.1 1535.6 -1999.2 19657.6 1715.8 (98.5) (18.6) (83.0) (93.2) (19.1) (81.1) LargeGrace × UltraPoor × rd 3 (84.3) (91.8) (32.0) (83.7) (90.8) (31.3) rd 4 522.7 2278.8 4376.2 2347.9 (90.8) (31.3) rd 4 522.7 2278.8 4376.2 2347.9 (90.8) (31.3) Large × rd 4 487.2 723.5 -3810.9 -905.2 848.5 -3906.1 (1.0) LargeGrace × rd 4 24304.2 -15000.2 5927.3 25321.1 -14887.6 6104.7 (15.1) (9.9) (21.1) (15.0)	Large × UltraPoor	(42.6)	(54.9)				(52.1)
Large × rd 3	LargeGrace × UltraPoor						
LargeGrace × rd 3 15522.2 -13229.4 7292.4 17584.9 -13356.4 7391.9 Large × UltraPoor × rd 3 429.4 19542.1 1535.6 -1999.2 19657.6 1715.8 Q8.5 (18.6) (83.0) (93.2) (19.1) (19.1) LargeGrace × UltraPoor × rd 3 5335.3 -1618.1 -12828.7 -4649.8 -1842.6 -12974.8 (84.3) (91.8) (32.0) (83.7) (90.8) (31.3) rd 4 522.7 2278.8 4376.2 2347.9 2192.6 4561.1 (91.3) (49.3) (1.2) (63.9) (51.1) (1.0) Large × rd 4 487.2 723.5 -3810.9 -905.2 848.5 -3906.1 (96.5) (91.9) (23.1) (93.5) (90.7) (22.2) LargeGrace × rd 4 24304.2 -15000.2 5927.3 25321.1 -14887.6 6104.7 (15.1) (9.9) (21.1) (15.0) (10.2) (20.5)	rd 3						(1.5)
Color	Large \times rd 3						
LargeGrace × UltraPoor × rd 3	LargeGrace × rd 3						
(84.3) (91.8) (32.0) (83.7) (90.8) (31.3) rd 4 (522.7) (2278.8) (4376.2) (2347.9) (2192.6) (4561.1) (1.0) Large × rd 4 (487.2) (723.5) (-3810.9) (-905.2) (94.5) (90.7) (22.2) LargeGrace × rd 4 (24304.2) (-1500.2) (5927.3) (25321.1) (1487.6) (6104.7) (15.1) (9.9) (21.1) (15.0) (10.2) (20.5)	Large \times UltraPoor \times rd 3						
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	LargeGrace × UltraPoor × rd 3						-12974.8 (31.3)
(96.5) (91.9) (23.1) (93.5) (90.7) (22.2) LargeGrace × rd 4 24304.2 -15000.2 5927.3 25321.1 -14887.6 6104.7 (15.1) (9.9) (21.1) (15.0) (10.2) (20.5)	rd 4						
$(15.1) \qquad (9.9) \qquad (21.1) \qquad (15.0) \qquad (10.2) \qquad (20.5)$	Large × rd 4						
Large \times IlltraPoor \times rd 4 = 13211.0 28306.6 874.7 = 15432.2 27878.4 997.5	LargeGrace × rd 4						
(55.2) (13.5) (88.9) (49.1) (13.8) (87.5)	Large × UltraPoor × rd 4	-13211.0 (55.2)	28306.6 (13.5)	874.7 (88.9)	-15432.2 (49.1)	27878.4 (13.8)	997.5 (87.5)
LargeGrace × UltraPoor × rd 4 21353.0 -5217.5 -11033.3 11700.7 -6016.2 -11242.8 (45.1) (79.5) (33.3) (63.6) (76.9) (32.3)	LargeGrace \times UltraPoor \times rd 4						-11242.8 (32.3)
FloodInRd1	FloodInRd1						
Head literate0 5142.4 -204.6 481.0 (44.0) (97.2) (87.4)	Head literate0						
net asset value 1 0.8 0.2 0.3 0.8 0.2 0.2 (2.3) (43.3) (37.3) (0.6) (44.1) (43.8)	net asset value ₁						
HHsize0 6893.7 -1114.1 1967.1 (0.5) (65.0) (0.8)	HHsize0						120111
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							
T = 3 10 9 60 10 9 60 T = 4 48 92 222 48 92 222							
$ar{R}^2$		******					

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock.

Table 103: ANCOVA estimation of net assets by attributes, poverty status, and period, cattle rearing experiences

		mean/std			(1)	
	Adi	Own	None	Adi	Own	None
(Intercept)				26973.4 (0.0)	28073.3 (0.0)	13809.6 (0.0)
Unfront	0.778 (0.42)	0.815 (0.39)	0.786 (0.41)	3584.9 (48.2)	20470.0 (1.8)	9512.0 (0.0)
WithGrace	0.450 (0.50)	0.471 (0.50)	0.524 (0.50)	-1437.9 (83.3)	-9883.2 (20.8)	-4621.4 (4.6)
InKind	0.316 (0.47)	0.202 (0.40)	0.271 (0.44)	-45.1 (99.4)	-3735.1 (31.4)	-397.3 (86.2)
$Up front \times UltraPoor$	0.444 (0.50)	0.505 (0.50)	0.536 (0.50)	-7440.8 (47.0)	4700.1 (66.1)	-6008.9 (36.5)
WithGrace × UltraPoor	0.240 (0.43)	0.293 (0.46)	0.371 (0.48)	13186.7 (29.3)	27450.9 (0.3)	1205.5 (85.3)
InKind × UltraPoor	0.146 (0.35)	0.141 (0.35)	0.174 (0.38)	-2799.1 (80.4)	-22296.2 (1.6)	1394.2 (75.2)
rd 3	0.345 (0.48)	0.343 (0.48)	0.354 (0.48)	-1374.7 (60.6)	339.2 (89.5)	3876.8 (0.1)
Upfront \times rd 3	0.269 (0.44)	$0.276 \\ (0.45)$	$0.276 \\ (0.45)$	-7524.9 (41.1)	1282.5 (87.3)	-4185.5 (14.2)
WithGrace × rd 3	0.158 (0.37)	0.162 (0.37)	0.185 (0.39)	6907.5 (45.8)	-12470.5 (7.5)	7180.2 (3.5)
InKind \times rd 3	$0.111 \\ (0.32)$	$0.071 \\ (0.26)$	$0.098 \\ (0.30)$	-2083.3 (67.0)	8650.4 (16.3)	-5999.7 (8.4)
Unfront \times UltraPoor \times rd 3	0.158 (0.37)	0.168 (0.37)	0.188 (0.39)	9001.9 (65.6)	12800.0 (37.3)	-2206.3 (75.0)
WithGrace \times UltraPoor \times rd 3	$0.088 \\ (0.28)$	$0.098 \\ (0.30)$	0.131 (0.34)	-10598.7 (62.7)	-16702.2 (23.9)	-5290.9 (57.6)
$InKind \times UltraPoor \times rd \ 3$	0.053 (0.22)	0.047 (0.21)	0.063 (0.24)	15785.0 (23.2)	-2829.8 (83.8)	10915.6 (18.8)
rd 4	0.333 (0.47)	0.327 (0.47)	0.335 (0.47)	621.0 (85.8)	899.5 (77.2)	4599.3 (0.0)
Unfront × rd 4	0.263 (0.44)	0.266 (0.44)	0.269 (0.44)	1791.8 (86.2)	4835.5 (59.8)	-3723.3 (23.9)
WithGrace \times rd 4	0.152 (0.36)	$0.152 \\ (0.36)$	0.179 (0.38)	4743.1 (70.2)	-14162.9 (11.3)	7292.9 (5.5)
InKind × rd 4	0.105 (0.31)	0.061 (0.24)	0.093 (0.29)	-5317.9 (58.1)	11671.1 (14.0)	-2679.5 (45.7)
Upfront \times UltraPoor \times rd 4	0.152 (0.36)	$0.168 \\ (0.37)$	0.185 (0.39)	5979.5 (75.4)	24624.8 (18.5)	1625.8 (82.1)
WithGrace \times UltraPoor \times rd 4	$0.082 \\ (0.27)$	0.098 (0.30)	0.129 (0.33)	4797.8 (83.1)	-33128.4 (8.2)	-6208.8 (50.6)
$InKind \times UltraPoor \times rd \ 4$	0.047 (0.21)	0.047 (0.21)	$0.062 \\ (0.24)$	9323.6 (59.4)	1168.3 (95.3)	6333.9 (45.3)
FloodInRd1	0.526 (0.50)	0.444 (0.50)	0.396 (0.49)			
Head literate0	0.135 (0.34)	$0.165 \\ (0.37)$	$0.142 \\ (0.35)$			
net asset value ₁	1344.942 (6621.59)	31070.976 (15261.17)	2746.425 (3434.12)			
HHsize0	4.573 (1.24)	4.586 (1.41)	4.382 (1.37)			
mean of dependent variable $T = 2$				28555 9	39322 6	21496 27
T = 3 T = 4				18 83	15 113	97 354
$ar{R}^2 N$	171	297	809	-0.045 294	0.074 375	0.029 1283

Table 103: ANCOVA estimation of net assets by attributes, poverty status, and period, cattle rearing experiences (continued)

		(2)			(3)	
(Intercept)	Adi 31177.1 (0.0)	Own 22237.9 (2.6)	None 14489.7 (0.0)	Adi 4835.9 (68.5)	Own 23909.4 (8.9)	None 6362.6 (17.9)
Upfront	-349.2 (95.7)	22642.8 (4.6)	8891.3 (1.5)	-2742.2 (67.5)	22738.0 (4.9)	8286.5 (3.2)
WithGrace	-1312.6 (92.7)	-14633.9 (18.1)	-4242.9 (15.6)	-267.4 (98.0)	-14286.8 (22.4)	-4295.8 (16.3)
InKind	21.6 (99.9)	613.8 (90.7)	-3090.5 (28.2)	528.5 (96.2)	275.8 (96.0)	-3035.2 (28.7)
$Upfront \times UltraPoor$	-4088.1 (77.1)	-1952.6 (87.6)	-9574.4 (32.9)	-5898.1 (65.7)	-1959.5 (87.2)	-10802.1 (31.8)
WithGrace × UltraPoor	14586.3 (42.0)	27276.9 (2.0)	2042.4 (82.6)	13126.3 (40.1)	27050.3 (2.2)	3273.1 (74.0)
InKind × UltraPoor	-1205.6 (94.4)	-17168.5 (16.3)	-2382.1 (67.9)	-3427.0 (83.6)	-17523.0 (16.8)	-2695.7 (64.8)
rd 3	-2360.9 (52.2)	773.5 (78.3)	4019.3 (2.9)	-997.0 (77.8)	801.7 (77.7)	4160.5 (2.5)
Upfront \times rd 3	-2097.2 (85.9)	1333.6 (88.0)	-2507.9 (53.6)	-3138.1 (79.4)	1238.4 (89.2)	-2442.8 (54.7)
WithGrace \times rd 3	20427.2 (11.9)	-15717.2 (3.7)	9361.3 (7.6)	22846.8 (6.7)	-15747.8 (4.2)	9517.5 (7.5)
InKind \times rd 3	-13769.3 (7.7)	12963.0 (5.5)	-8483.5 (10.3)	-16281.8 (1.8)	12968.8 (5.8)	-8506.1 (10.7)
Unfront \times UltraPoor \times rd 3	1017.6 (96.9)	15373.1 (40.1)	4546.9 (58.8)	-3442.0 (89.4)	15738.9 (39.7)	4942.3 (55.7)
WithGrace \times UltraPoor \times rd 3	4936.4 (89.9)	-21204.1 (23.2)	-14426.4 (29.9)	-2460.0 (94.6)	-21384.3 (24.0)	-14717.7 (28.9)
$InKind \times UltraPoor \times rd 3$	-4734.4 (86.0)	-1421.7 (93.0)	16812.0 (20.7)	3530.4 (87.7)	-1208.2 (94.2)	17117.5 (19.8)
rd 4	125.9 (97.9)	2630.5 (45.4)	4060.4 (2.3)	1958.9 (69.4)	2558.1 (46.7)	4205.8 (2.0)
Unfront × rd 4	4340.2 (70.1)	1464.5 (89.1)	-1913.3 (62.0)	2767.8 (81.2)	1512.0 (88.9)	-1865.4 (62.8)
WithGrace \times rd 4	23660.7 (21.5)	-15692.2 (10.1)	9690.0 (7.0)	26087.2 (18.7)	-15735.8 (10.8)	9941.9 (6.6)
InKind × rd 4	-21651.4 (21.3)	17208.6 (5.5)	-5152.4 (34.6)	-22807.0 (21.1)	16980.0 (5.4)	-5257.7 (34.4)
$Upfront \times UltraPoor \times rd \ 4$	-6766.1 (77.8)	19255.1 (37.1)	3398.2 (65.6)	-12079.6 (62.1)	19424.1 (37.4)	3923.0 (60.9)
WithGrace \times UltraPoor \times rd 4	35291.5 (35.9)	-33513.1 (13.8)	-11845.8 (32.5)	27859.7 (44.2)	-33714.9 (14.3)	-12135.1 (31.3)
$InKind \times UltraPoor \times rd \ 4$	-17761.3 (53.9)	-4888.0 (83.8)	12268.1 (31.6)	-10220.5 (69.1)	-4072.4 (86.7)	12671.9 (30.1)
FloodInRd1				-11106.9 (1.8)	1672.5 (78.5)	560.8 (81.4)
Head literate0				5909.8 (42.6)	-1672.1 (77.1)	-162.5 (96.1)
net asset value ₁	0.8 (2.5)	(41.4)	0.3 (35.7)	0.8 (0.7)	0.2 (44.5)	0.3 (41.7)
HHsize0				6856.8 (0.6)	-524.9 (83.2)	1940.7 (0.9)
mean of dependent variable $T = 2$	28555 2	39322 1	21496 10	28555 2	39322 1	21496 10
T = 3 $T = 4$	10 48	9 92	60 222	10 48	9 92	60 222
$ar{R}^2 N$	-0.048 166	0.074 295	0.032 796	0.071 166	0.065 295	0.044 796

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

III.5.11 Livestock, experienced vs. inexperienced

	Attri	tIn			
Arm	2	3	4	9	Sum
traditional	7	4	20	144	175

```
5 2 1 191 199
 large
               3
 large grace 12
                  3 170 188
 cattle
           5
              5 13 176 199
           29 14 37 681 761
 Sum
   NumCows
          1 2
                                  7
tee
      0
                  3
                              6
                                      8
                                           9 <NA>
                                                  Sum
      15 308 153
 2
                  40
                     11
                           1
                              2
                                  0
                                      1
                                           1 196
                                                 728
      5 337
            175
                  40
                     15
                              2
                                  2
                                           0 110 688
 3
                           1
                                       1
      4 218
            201
                 54
                              2
                                              86 582
 4
                      11
                           4
                                   0
                                       1
                                           1
      24 863
            529
                 134
                     37
                          6
                              6
                                  2
                                      3
                                           2 392 1998
 Sum
```

```
Г17
~ + dummyLarge + dummyLargeGrace + dummyCattle
+ TotalImputedValue0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.Large + dummyAdiCattle0.LargeGrace + dummyAdiCattle0.Cattle + NA
[2]
\sim + dummyUltraPoor + dummyLargeSize + dummyWithGrace
+ dummyWithGrace + dummyInKind + UDdummyUltraPoor
+ dummyLargeSize.UltraPoor + UDdummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor
+ UDdummyWithGrace.UltraPoor + dummyInKind.UltraPoor + UDdummyInKind.UltraPoor
+ TotalImputedValue0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKind + NA
[3]
\sim + dummyLargeSize + dummyWithGrace + dummyInKind
+ TotalImputedValue0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKind + NA
[4]
~ + Time.3 + Time.4 + dummyLarge
+ dummyLarge + dummyLargeGrace + dummyCattle
+ dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3
+ dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
+ TotalImputedValue0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
```

```
dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3 + dummyAdiCatt
+ dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace
+ dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.C
+ dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4
[5]
~ + Time.3 + Time.4 + dummyLargeSize
+ dummyLargeSize + dummyWithGrace + dummyInKind
+ dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3
+ dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4
+ TotalImputedValue0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize + dummyAdiCattle
+ dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 + dummyAdiCattle0.Wi
+ dummyAdiCattle0.WithGrace.Time3 + dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.Inl
+ dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4
[6]
\sim + Time.3 + Time.4 + dummyLarge
+ dummyLarge + dummyLargeGrace + dummyCattle
+ dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3
+ dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4
+ dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4
+ dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor
+ dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3
+ dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.
+ TotalImputedValue0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3 + d\mathfrak{q}mmyAdiCat\mathfrak{q}
+ dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace
+ dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.0
+ dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4
[7]
~ + Time.3 + Time.4 + dummyUltraPoor
+ dummyUltraPoor + dummyLargeSize + dummyWithGrace
+ dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3
+ dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4
+ dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4
+ dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
+ dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraP
+ dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.T
+ TotalImputedValue0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
```

```
+ dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 + dummyAdiCattle0.Wi
+ dummyAdiCattle0.WithGrace.Time3 + dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.Inh
+ dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4
[1] excl
[[1]]
{\sf TotalImputedValue} \ \sim \ {\sf dummyLarge} \ + \ {\sf dummyLargeGrace} \ + \ {\sf dummyCattle}
[[2]]
TotalImputedValue ~ dummyLarge + dummyLargeGrace + dummyCattle +
    TotalImputedValue0
ΓΓ3]]
TotalImputedValue ~ dummyLarge + dummyLargeGrace + dummyCattle +
    TotalImputedValue0 + dummyAdiCattle0
[[4]]
TotalImputedValue \sim FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0
TotalImputedValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0.Large + dummyAdiCattle0.LargeGrace + dummyAdiCattle0.Cattle |+
    dummyAdiCattle0
[[6]]
{\sf TotalImputedValue} \ \sim \ {\sf FloodInRd1} \ + \ {\sf dummyLarge} \ + \ {\sf dummyLargeGrace} \ + \\
    dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0.Large + dummyAdiCattle0.LargeGrace + dummyAdiCattle0.Cattle | +
    dummvAdiCattle0
[1] exclP
[[1]]
TotalImputedValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
TotalImputedValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + TotalImputedValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
TotalImputedValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + TotalImputedValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyAdiCattle0
TotalImputedValue \sim FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyAdiCattle0
[[5]]
TotalImputedValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
```

dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize + dummyAdiCattle

TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +

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dummyInKind.UltraPoor + dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace +
   dummyAdiCattle0.InKind + dummyAdiCattle0
[[6]]
TotalImputedValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor + dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace +
   dummyAdiCattle0.InKind + dummyAdiCattle0
[1] excla
[[1]]
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind +
   TotalImputedValue0
[[3]]
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind +
   TotalImputedValue0 + dummyAdiCattle0
[[4]]
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
   dummyAdiCattle0
[[5]]
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKind +
   dummyAdiCattle0
[[6]]
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKi|nd +
   dummyAdiCattle0
[1] exclT
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + TotalImputedValue0
[[3]]
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + TotalImputedValue0 + dummyAdiCattle0
[[4]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
```

dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +

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dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0
[[5]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3
    dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace +
    dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 +
    dummyAdiCattle0.Cattle + dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 -
    dummyAdiCattle0
[[6]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3 |+
    dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace +
    dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 +
    dummyAdiCattle0.Cattle + dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 -
    dummyAdiCattle0
[1] exclTa
[[1]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
[[2]]
TotalImputedValue \sim Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + TotalImputedValue0
[[3]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + TotalImputedValue0 + dummyAdiCattle0
[[4]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0
ΓΓ5]]
{\tt TotalImputedValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLargeSize} \ + \\
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize +
    dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 +
    dummyAdiCattle0.WithGrace + dummyAdiCattle0.WithGrace.Time3 +
```

dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.InKind +

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dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4 +
   dummyAdiCattle0
[[6]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
   dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize +
   dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 +
   dummyAdiCattle0.WithGrace + dummyAdiCattle0.WithGrace.Time3 +
    dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.InKind +
    dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4 +
    dummyAdiCattle0
[1] exclTP
[[1]]
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
   dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
   dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
   dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[2]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   TotalImputedValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
   dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
   dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
   dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   TotalImputedValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
   dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyAdiCattle0
[[4]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
   dummyLargeGrace + dummyCattle + dummyUltraPoor + dummyLarge.Time3 +
   dummyLargeGrace.Time3 + dummyCattle.Time3 + dummyUltraPoor.Time3 +
   dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
   dummyUltraPoor.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
   dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
   dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
   dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
   dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
   dummyAdiCattle0
```

TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +

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dummyLargeGrace + dummyCattle + dummyUltraPoor + dummyLarge.Time3 +
    dummyLargeGrace.Time3 + dummyCattle.Time3 + dummyUltraPoor.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
    dummyUltraPoor.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3
    dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace +
    dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 +
    dummyAdiCattle0.Cattle + dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 -
    dummyAdiCattle0
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyUltraPoor + dummyLarge.Time3 +
    dummyLargeGrace.Time3 + dummyCattle.Time3 + dummyUltraPoor.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
    dummyUltraPoor.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3
    dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace +
    dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 +
    dummyAdiCattle0.Cattle + dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 -
    dummyAdiCattle0
[1] exclTPa
[[1]]
TotalImputedValue \sim Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[2]]
TotalImputedValue \sim Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[3]]
{\tt TotalImputedValue} \ \sim \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyUltraPoor} \ + \ {\tt dummyLargeSize} \ + \ {\tt time.4}
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
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dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +

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dummyInKind.UltraPoor.Time4 + dummyAdiCattle0
[[4]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
   dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
   dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
   dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
   dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4 +
    dummyAdiCattle0
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
   dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
   dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
   dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
   dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
   dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
   dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4 +
   dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize +
   dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 +
   dummyAdiCattle0.WithGrace + dummyAdiCattle0.WithGrace.Time3 +
    dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.InKind +
    dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4 +
    dummyAdiCattle0
[[6]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
   dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
    dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
   dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0 +
   dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
   dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
   dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
   dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4 +
   dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize +
    dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 +
    dummyAdiCattle0.WithGrace + dummyAdiCattle0.WithGrace.Time3 +
    dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.InKind +
    dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4 +
    dummyAdiCattle0
[1] excl
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TotalImputedValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
   dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] exclP
[[1]]
TotalImputedValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor
[[2]]
TotalImputedValue \sim dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + TotalImputedValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
TotalImputedValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor
ΓΓ4]]
TotalImputedValue \sim FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor
[1] excla
[[1]]
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind +
   TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] exclT
[[1]]
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4
[[2]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
   dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
```

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[[4]]
TotalImputedValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] exclTa
ΓΓ177
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4
[[2]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
   dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[[4]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] excl
[[1]]
TotalImputedValue ~ dummyLarge + dummyLargeGrace + dummyCattle
[[2]]
TotalImputedValue ~ dummyLarge + dummyLargeGrace + dummyCattle +
   TotalImputedValue0
[[3]]
TotalImputedValue \sim FloodInRd1 + dummyLarge + dummyLargeGrace +
   dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[[4]]
TotalImputedValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
   dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] exclP
[[1]]
TotalImputedValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor
[[2]]
TotalImputedValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + TotalImputedValue0 + dummyLargeSize.UltraPoor +
   dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
TotalImputedValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
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TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor
[[4]]
TotalImputedValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
   dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
   dummyInKind.UltraPoor
[1] excla
[[1]]
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind +
   TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0
ΓΓ4]]
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] exclT
[[1]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4
[[2]]
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + TotalImputedValue0
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
TotalImputedValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLarge +
   dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
   dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] exclTa
[[1]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4
[[2]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
```

```
dummyInKind.Time4 + TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
        dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
        dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
        dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[[4]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
        dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
        dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
        dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] excl
[[1]]
TotalImputedValue ~ dummyLarge + dummyLargeGrace + dummyCattle
ΓΓ2]]
TotalImputedValue ~ dummyLarge + dummyLargeGrace + dummyCattle +
        TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
        dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[[4]]
TotalImputedValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace +
        dummyCattle + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] exclP
[[1]]
{\tt TotalImputedValue} \ \sim \ {\tt dummyUltraPoor} \ + \ {\tt dummyLargeSize} \ + \ {\tt dummyWithGrace} \ + \ {\tt dummyWithGrac
        dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
        dummyInKind.UltraPoor
TotalImputedValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
        dummyInKind + TotalImputedValue0 + dummyLargeSize.UltraPoor +
        dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
TotalImputedValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
        dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
        TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
        dummyInKind.UltraPoor
[[4]]
TotalImputedValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
        dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
        TotalImputedValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
        dummyInKind.UltraPoor
[1] excla
[[1]]
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
TotalImputedValue ~ dummyLargeSize + dummyWithGrace + dummyInKind +
        TotalImputedValue0
```

```
[[3]]
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[[4]]
TotalImputedValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] exclT
[[1]]
TotalImputedValue \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4
[[2]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + TotalImputedValue0
[[3]]
{\tt TotalImputedValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLarge} \ +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
[1] exclTa
[[1]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
ΓΓ2]]
TotalImputedValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + TotalImputedValue0
[[3]]
TotalImputedValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
ΓΓ4]]
{\tt TotalImputedValue} \ \sim \ {\tt FloodInRd1} \ + \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLargeSize} \ + \\
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + TotalImputedValue0
```

Table 104: ANCOVA estimation of livestock values, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		20988.8 (0.0)	19118.6 (0.0)	18323.5 (0.0)	13156.3 (0.0)	12960.5 (0.0)
Large	0.273 (0.45)	9623.6 (0.3)	8925.8 (0.1)	8894.7 (0.1)	8594.1 (0.2)	8817.1 (0.2)
LargeGrace	$0.248 \\ (0.43)$	4808.8 (5.2)	4523.2 (5.2)	4726.8 (4.0)	4770.8 (3.3)	5000.6 (2.3)
Cattle	0.264 (0.44)	4448.8 (1.0)	4681.4 (0.5)	4647.8 (0.5)	4641.7 (0.5)	4769.6 (0.4)
AdiCattle0	0.153 (0.36)			4223.3 (2.1)	3812.3 (4.0)	4274.4 (2.6)
AdiCattle0 × Large	0.044 (0.21)					-7693.9 (15.1)
$AdiCattle0 \times LargeGrace$	0.028 (0.16)					4528.2 (39.9)
AdiCattle $0 \times Cattle$	0.046 (0.21)					-4123.7 (39.6)
FloodInRd1	0.491 (0.50)				760.3 (64.4)	689.3 (68.3)
Head literate()	0.114 (0.32)				-637.2 (75.5)	-407.7 (83.9)
livestock value ₁	5315.315 (12450.23)		0.4 (0.0)	0.4 (0.0)	0.4 (0.0)	0.4 (0.0)
HHsize0	4.219 (1.43)				1207.6 (2.0)	1227.3 (1.9)
mean of dependent variable $T = 2$		25986 40	25986 40	25986 40	25986 40	25986 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.024 1998	0.076 1998	0.081 1998	0.086 1998	0.09 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

Table 105: ANCOVA estimation of livestock values by attributes, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		20988.8 (0.0)	19118.6 (0.0)	18323.5 (0.0)	13156.3 (0.0)	12960.5 (0.0)
Unfront	0.785 (0.41)	9623.6 (0.3)	8925.8 (0.1)	8894.7 (0.1)	8594.1 (0.2)	8817.1 (0.2)
WithGrace	0.512 (0.50)	-4814.7 (17.3)	-4402.6 (16.0)	-4167.9 (17.9)	-3823.4 (23.0)	-3816.5 (23.4)
InKind	0.264 (0.44)	-360.1 (86.9)	158.3 (94.3)	-79.0 (97.1)	-129.0 (95.1)	-231.0 (91.2)
AdiCattle0	0.153 (0.36)			4223.3 (2.1)	3812.3 (4.0)	4274.4 (2.6)
AdiCattle0 × Unfront	0.118 (0.32)					-7693.9 (15.1)
AdiCattle0 × WithGrace	0.074 (0.26)					12222.1 (3.3)
AdiCattle0 × InKind	0.046 (0.21)					-8651.9 (10.0)
FloodInRd1	0.491 (0.50)				760.3 (64.4)	689.3 (68.3)
Head literate()	0.114 (0.32)				-637.2 (75.5)	-407.7 (83.9)
livestock value ₁	5315.315 (12450.23)		0.4 (0.0)	0.4 (0.0)	0.4 (0.0)	0.4 (0.0)
HHsize()	4.219 (1.43)				1207.6 (2.0)	1227.3 (1.9)
mean of dependent variable $T = 2$		25986 40	25986 40	25986 40	25986 40	25986 40
$\begin{array}{c} T = 3 \\ T = 4 \end{array}$		106 582	106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.024 1998	0.076 1998	0.081 1998	0.086 1998	0.09 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

Table 106: ANCOVA estimation of livestock values by period, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		18149.0 (0.0)	16157.5 (0.0)	15346.6 (0.0)	10035.0 (0.0)	9797.7 (0.0)
Large	0.273 (0.45)	9780.4 (0.3)	9036.1 (0.1)	9016.3 (0.1)	8692.0 (0.2)	8880.2 (0.2)
LargeGrace	0.248 (0.43)	4348.5 (7.7)	4073.7 (7.7)	4296.9 (5.9)	4331.0 (4.9)	4579.8 (3.5)
Cattle	0.264 (0.44)	4343.4 (1.3)	4566.5 (0.9)	4540.6 (0.8)	4516.9 (0.7)	4597.4 (0.7)
AdiCattle0	0.153 (0.36)			4242.5 (2.1)	3821.7 (4.0)	4590.9 (1.2)
AdiCattle0 × Large	0.044 (0.21)					-6683.7 (19.4)
$AdiCattle0 \times LargeGrace$	0.028 (0.16)					5175.1 (30.4)
AdiCattle $0 \times Cattle$	0.046 (0.21)					-2939.2 (53.8)
rd 3	0.348 (0.48)	2891.6 (0.2)	3011.2 (0.1)	3007.3 (0.1)	3056.4 (0.1)	3049.3 (0.1)
Large × rd 3	0.094 (0.29)	-1951.6 (50.6)	-1782.3 (54.3)	-1835.2 (53.2)	-1776.5 (54.6)	-1619.3 (58.0)
LargeGrace × rd 3	0.085 (0.28)	1083.7 (67.0)	1048.8 (67.4)	910.8 (71.5)	943.0 (70.9)	807.4 (74.1)
Cattle × rd 3	0.091 (0.29)	-611.9 (78.1)	-728.7 (74.1)	-770.6 (72.8)	-737.0 (74.0)	-579.1 (79.4)
AdiCattle $0 \times rd 3$	0.054 (0.23)					-2413.8 (25.1)
AdiCattle0 × Large × rd 3	0.015 (0.12)					-6106.0 (36.4)
AdiCattle $0 \times \text{LargeGrace} \times \text{rd } 3$	0.011 (0.10)					-7107.4 (22.2)
AdiCattle $0 \times \text{Cattle} \times \text{rd } 3$	0.016 (0.12)					-5071.1 (31.8)
rd 4	0.326 (0.47)	5956.7 (0.0)	6180.7 (0.0)	6191.4 (0.0)	6256.1 (0.0)	6360.0 (0.0)
Large × rd 4	0.094 (0.29)	-665.3 (84.7)	-447.3 (89.6)	-517.0 (88.0)	-393.4 (90.8)	-197.8 (95.3)
LargeGrace × rd 4	0.081 (0.27)	4048.1 (17.7)	3936.8 (17.7)	3870.0 (17.9)	3973.4 (17.2)	4203.3 (12.9)
Cattle × rd 4	0.085 (0.28)	2023.3 (46.0)	2293.4 (40.5)	2250.7 (41.1)	2430.9 (37.3)	2792.8 (29.7)
AdiCattle $0 \times rd 4$	0.050 (0.22)					-94.2 (97.8)
AdiCattle $0 \times \text{Large} \times \text{rd } 4$	0.016 (0.12)					-6657.6 (40.3)
AdiCattle $0 \times \text{LargeGrace} \times \text{rd } 4$	0.009 (0.09)					474.6 (96.7)
AdiCattle $0 \times \text{Cattle} \times \text{rd } 4$	0.015 (0.12)					-10334.6 (16.3)
FloodInRd1	0.491 (0.50)				779.7 (63.5)	698.6 (68.0)
Head literate()	0.114 (0.32)				-649.9 (75.1)	-419.7 (83.5)
livestock value ₁	5315.315 (12450.23)		0.4 (0.0)	0.4 (0.0)	0.4 (0.0)	0.4 (0.0)
HHsize()	4.219 (1.43)				1234.9 (1.7)	1254.5 (1.6)
mean of dependent variable $T = 2$		25986 40	25986 40	25986 40	25986 40	25986 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.034 1998	0.088 1998	0.092 1998	0.098 1998	0.101 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 107: ANCOVA estimation of livestock values by period, attributes, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		18149.0 (0.0)	16157.5 (0.0)	15346.6 (0.0)	10035.0 (0.0)	9797.7 (0.0)
Unfront	0.785 (0.41)	9780.4 (0.3)	9036.1 (0.1)	9016.3 (0.1)	8692.0 (0.2)	8880.2 (0.2)
WithGrace	0.512 (0.50)	-5431.9 (12.3)	-4962.4 (11.2)	-4719.4 (12.8)	-4361.0 (16.8)	-4300.5 (17.7)
InKind	0.264 (0.44)	-5.1 (99.8)	492.8 (82.2)	243.7 (91.0)	185.9 (92.9)	17.6 (99.3)
AdiCattle0	0.153 (0.36)			4242.5 (2.1)	3821.7 (4.0)	4590.9 (1.2)
AdiCattle0 × Unfront	0.118 (0.32)					-6683.7 (19.4)
$AdiCattle0 \times WithGrace$	0.074 (0.26)					11858.7 (2.8)
AdiCattle0 × InKind	0.046 (0.21)					-8114.2 (11.1)
rd 3	0.348 (0.48)	2891.6 (0.2)	3011.2 (0.1)	3007.3 (0.1)	3056.4 (0.1)	3049.3 (0.1)
Unfront \times rd 3	0.269 (0.44)	-1951.6 (50.6)	-1782.3 (54.3)	-1835.2 (53.2)	-1776.5 (54.6)	-1619.3 (58.0)
WithGrace × rd 3	0.176 (0.38)	3035.2 (30.6)	2831.1 (33.3)	2746.0 (34.7)	2719.5 (35.7)	2426.7 (40.3)
InKind × rd 3	0.091 (0.29)	-1695.5 (45.0)	-1777.5 (41.9)	-1681.4 (44.1)	-1680.0 (44.8)	-1386.5 (52.1)
AdiCattle0 × rd 3	0.054 (0.23)	(1212)	(1212)	(1115)	(1110)	-2413.8 (25.1)
AdiCattle0 \times Unfront \times rd 3	0.041 (0.20)					-6106.0 (36.4)
AdiCattle0 × WithGrace × rd 3	0.026 (0.16)					-1001.4 (87.9)
AdiCattle $0 \times InKind \times rd 3$	0.016 (0.12)					2036.2 (67.5)
rd 4	0.326 (0.47)	5956.7 (0.0)	6180.7 (0.0)	6191.4 (0.0)	6256.1 (0.0)	6360.0 (0.0)
Unfront × rd 4	0.260 (0.44)	-665.3 (84.7)	-447.3 (89.6)	-517.0 (88.0)	-393.4 (90.8)	-197.8 (95.3)
WithGrace \times rd 4	0.166 (0.37)	4713.5 (17.3)	4384.1 (20.3)	4387.0 (20.1)	4366.8 (20.6)	4401.1 (19.5)
InKind × rd 4	0.085 (0.28)	-2024.8 (46.2)	-1643.4 (55.3)	-1619.3 (55.4)	-1542.5 (57.3)	-1410.5 (60.2)
AdiCattle $0 \times rd 4$	0.050 (0.22)	,	,	,	,	-94.2 (97.8)
AdiCattle $0 \times \text{Unfront} \times \text{rd } 4$	0.039 (0.19)					-6657.6 (40.3)
AdiCattle0 × WithGrace × rd 4	0.024 (0.15)					7132.2 (53.7)
AdiCattle $0 \times InKind \times rd 4$	0.015 (0.12)					-10809.1 (33.2)
FloodInRd1	0.491 (0.50)				779.7 (63.5)	698.6 (68.0)
Head literate()	0.114 (0.32)				-649.9 (75.1)	-419.7 (83.5)
livestock value ₁	5315.315 (12450.23)		0.4 (0.0)	0.4 (0.0)	0.4 (0.0)	0.4 (0.0)
HHsize0	4.219 (1.43)		, ,	()	1234.9 (1.7)	1254.5 (1.6)
mean of dependent variable $T = 2$	()	25986 40	25986 40	25986 40	25986 40	25986 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.034 1998	0.088 1998	0.092 1998	0.098 1998	0.101 1998

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 108: ANCOVA estimation of livestock values by arm, poverty status, and period, cattle rearing experiences

EXPERIENCES						
covariates (Intercept)	mean/std	(1) 19529.8	(2) 17349.8	(3) 16518.1	(4) 11021.7	(5) 10714.5
Large	0.273	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
LargeGrace	(0.45) 0.248	(0.2)	(0.0)	(0.0) 4461.7	(0.1) 4480.3	(0.1) 4695.1
Cattle	(0.43)	(7.2) 4488.6	(6.0) 4900.4	(4.5) 4852.2	(3.8)	(2.8) 4920.1
	(0.44)	(0.8)	(0.4)	(0.4)	(0.4)	(0.4)
AdiCattle0 UltraPoor	0.153 (0.36)	2215.7	2202.4	4457.5 (1.3) -2316.7	4056.8 (2.5) -2278.0	4861.9 (0.7)
	0.630 (0.48)	-2215.7 (14.5)	-2303.4 (12.5)	(12.5)	(14.0)	-2160.5 (15.5)
AdiCattle0 × Large	0.044 (0.21)					-5465.2 (26.2)
AdiCattle0 × LargeGrace	0.028 (0.16)					5366.5 (27.1)
AdiCattle0 × Cattle	0.046 (0.21)					-2731.9 (55.8)
Large × UltraPoor	0.172 (0.38)	-6798.3 (15.3)	-5243.1 (22.9)	-5656.4 (19.7)	-5827.7 (19.2)	-5617.4 (20.1)
LargeGrace × UltraPoor	0.171 (0.38)	2987.0 (40.5)	4791.4 (19.3)	4761.0 (18.8)	5133.0 (14.9)	5161.4 (13.9)
Cattle × UltraPoor	0.181 (0.39)	-329.3 (92.6)	1663.4 (63.7)	1755.0 (61.7)	1994.4 (57.3)	1871.2 (59.3)
rd 3	0.348 (0.48)	2780.4 (0.3)	2911.2 (0.2)	2901.8 (0.2)	2961.2 (0.1)	2959.7 (0.1)
Large × rd 3	0.094 (0.29)	-1553.7 (56.3)	-1471.4 (58.8)	-1530.1 (57.5)	-1503.0 (58.2)	-1338.6 (62.0)
LargeGrace × rd 3	$0.085 \\ (0.28)$	2068.6 (40.6)	1898.8 (44.3)	1740.4 (48.2)	1741.2 (48.7)	1595.5 (51.3)
Cattle \times rd 3	0.091 (0.29)	-176.2 (93.2)	-376.0 (85.9)	-415.9 (84.6)	-409.6 (84.9)	-261.0 (90.4)
UltraPoor \times rd 3	0.217 (0.41)	-107.0 (96.0)	-24.2 (99.1)	9.9 (99.6)	-4.9 (99.8)	137.1 (94.8)
Large × UltraPoor × rd 3	0.058 (0.23)	9721.0 (10.0)	8918.9 (12.7)	8882.3 (13.1)	8795.8 (13.2)	9085.4 (12.9)
LargeGrace × UltraPoor × rd 3	0.060 (0.24)	-2198.5 (70.8)	-2252.2 (69.7)	-2026.8 (72.2)	-2465.8 (66.7)	-2330.0 (68.0)
Cattle \times UltraPoor \times rd 3	0.061 (0.24)	6790.8 (9.3)	6186.2 (12.5)	6172.8 (12.6)	5865.2 (14.2)	5752.5 (14.7)
AdiCattle $0 \times rd 3$	0.054 (0.23)	, ,	, ,	. ,	, ,	-2565.3 (23.8)
AdiCattle $0 \times \text{Large} \times \text{rd } 3$	0.015 (0.12)					-6609.2 (33.7)
AdiCattle0 × LargeGrace × rd 3	0.011 (0.10)					-6827.9 (23.6)
AdiCattle0 \times Cattle \times rd 3	0.016 (0.12)					-4836.0 (32.3)
rd 4	0.326 (0.47)	5746.1 (0.0)	6029.4 (0.0)	6033.8 (0.0)	6110.0 (0.0)	6223.3 (0.0)
Large × rd 4	0.094 (0.29)	-250.7 (93.6)	-194.2 (95.1)	-280.6 (92.9)	-187.0 (95.3)	-8.9 (99.8)
LargeGrace × rd 4	0.081 (0.27)	4588.9 (11.1)	4290.5 (13.2)	4184.5 (13.8)	4256.3 (13.6)	4415.0 (10.7)
Cattle \times rd 4	0.085 (0.28)	2418.1 (34.7)	2627.4 (32.7)	2559.2 (33.7)	2705.5 (31.2)	3060.6 (24.8)
UltraPoor \times rd 4	0.211 (0.41)	1542.6 (50.9)	1199.2 (61.0)	1328.8 (57.0)	1315.4 (57.6)	1561.2 (51.0)
Large × UltraPoor × rd 4	0.060 (0.24)	13502.2 (4.8)	12728.7 (6.1)	12487.7 (6.6)	12398.9 (6.5)	12393.2 (7.1)
LargeGrace × UltraPoor × rd 4	0.056 (0.23)	4678.4 (45.8)	4379.8 (47.8)	4521.0 (45.4)	4069.7 (50.1)	4600.5 (43.7)
Cattle \times UltraPoor \times rd 4	0.060 (0.24)	8720.9 (8.8)	6764.0 (21.1)	6641.3 (21.4)	6298.8 (24.0)	5699.4 (29.5)
AdiCattle0 × rd 4	0.050 (0.22)	(010)	(====)	(==++)	(= 110)	-296.6 (93.3)
AdiCattle $0 \times Large \times rd 4$	0.016 (0.12)					-6937.5 (39.8)
AdiCattle0 × LargeGrace × rd 4	0.009 (0.09)					1833.7 (87.4)
AdiCattle $0 \times \text{Cattle} \times \text{rd } 4$	0.015 (0.12)					-9663.1 (18.6)
FloodInRd1	0.491 (0.50)				659.2 (68.4)	601.2 (71.9)
Head literate()	0.114 (0.32)				-921.0 (64.9)	-673.9 (73.4)
livestock value ₁	5315.315 (12450.23)		0.4 (0.0)	0.4 (0.0)	0.4 (0.0)	0.4 (0.0)
HHsize0	4.219 (1.43)		(0.0)	(0.0)	1288.2 (1.1)	1306.5 (1.1)
mean of dependent variable $T = 2$	(1.73)	25986 40	25986 40	25986 40	25986 40	25986 40
T = 3 $T = 4$		106 582	106 582	106 582	106 582	106 582
$ar{R}^2 N$	1998	0.039 1998	2330.093	0.098 1998	0.105 1998	0.106 1998
1 Y	1770	1220	1990	1990	1990	1990

Table 109: ANCOVA estimation of livestock values by attributes, poverty status, and period, cattle rearing experiences

EARING EXPERIENCES						
covariates (Intercept)	mean/std	(1) 19529.8	(2) 17349.8	(3) 16518.1	(4) 11021.7	(5) 10714.5
(Intercept) Unfront	0.785	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
WithGrace	(0.41)	(0.2) -5636.7	(0.0) -5182.6	(0.0) -4937.4	(0.1) -4618.1	(0.1) -4545.1
InKind	(0.50) 0.264	-3030.7 (10.0) 157.9	(8.5) 658.3	(9.5) 390.5	(12.9)	(13.8) 225.0
	(0.44)	(94.1)	(76.1)	(85.4)	368.3 (85.8)	(91.2)
AdiCattle0	0.153 (0.36)	2215 7	2202.4	4457.5 (1.3)	4056.8 (2.5)	4861.9 (0.7)
UltraPoor	0.630 (0.48)	-2215.7 (14.5)	-2303.4 (12.5)	-2316.7 (12.5)	-2278 0 (14.0)	-2160.5 (15.5)
AdiCattle0 × Upfront	0.118 (0.32)					-5465.2 (26.2)
AdiCattle0 × WithGrace	0.074 (0.26)					10831.7 (3.9)
AdiCattle0 × InKind	0.046 (0.21)					-8098.4 (11.1)
Unfront × UltraPoor	0.524 (0.50)	-6798.3 (15.3)	-5243.1 (22.9)	-5656.4 (19.7)	-5827.7 (19.2)	-5617.4 (20.1)
WithGrace × UltraPoor	0.352 (0.48)	9785.2 (3.6)	10034.5 (2.9)	10417.4 (2.5)	10960.6 (2.1)	10778.8 (2.0)
InKind × UltraPoor	0.181 (0.39)	-3316.3 (33.4)	-3128.0 (39.6)	-3006.0 (41.3)	-3138 6 (38.9)	-3290.2 (36.2)
rd 3	$0.348 \\ (0.48)$	2780.4 (0.3)	2911.2 (0.2)	2901.8 (0.2)	2961.2 (0.1)	2959.7 (0.1)
UltraPoor × rd 3	0.217 (0.41)	-107.0 (96.0)	-24.2 (99.1)	9.9 (99.6)	-4.9 (99.8)	137.1 (94.8)
Upfront \times rd 3	0.269 (0.44)	-1553.7 (56.3)	-1471.4 (58.8)	-1530.1 (57.5)	-1503.0 (58.2)	-1338.6 (62.0)
WithGrace × rd 3	0.176 (0.38)	3622.4 (21.4)	3370.3 (24.2)	3270.5 (25.4)	3244.2 (26.2)	2934.1 (29.8)
InKind \times rd 3	0.091 (0.29)	-2244.8 (34.1)	-2274.8 (32.6)	-2156.4 (34.8)	-2150.8 (35.4)	-1856.5 (41.4)
Unfront \times UltraPoor \times rd 3	0.179 (0.38)	9721.0 (10.0)	8918.9 (12.7)	8882.3 (13.1)	8795.8 (13.2)	9085.4 (12.9)
WithGrace \times UltraPoor \times rd 3	0.121 (0.33)	-11919.4 (9.0)	-11171.1 (10.8)	-10909.2 (11.4)	-11261.6 (10.5)	-11415.4 (10.2)
InKind \times IlltraPoor \times rd 3	0.061 (0.24)	8989.3 (10.6)	8438.4 (12.5)	8199.6 (13.0)	8331.0 (12.9)	8082.5 (13.2)
AdiCattle0 × rd 3	0.054 (0.23)	()	(' /	()	(")	-2565.3 (23.8)
AdiCattle $0 \times Unfront \times rd 3$	0.041 (0.20)					-6609.2 (33.7)
AdiCattle0 \times WithGrace \times rd 3	0.026 (0.16)					-218.7 (97.5)
AdiCattle $0 \times InKind \times rd 3$	0.016 (0.12)					1991.9 (68.7)
rd 4	0.326 (0.47)	5746.1 (0.0)	6029.4 (0.0)	6033.8 (0.0)	6110.0 (0.0)	6223.3 (0.0)
UltraPoor × rd 4	0.211 (0.41)	1542.6 (50.9)	1199.2 (61.0)	1328.8 (57.0)	1315.4 (57.6)	1561.2 (51.0)
Upfront × rd 4	0.260 (0.44)	-250.7 (93.6)	-194.2 (95.1)	-280.6 (92.9)	-187.0 (95.3)	-8.9 (99.8)
WithGrace × rd 4	0.166 (0.37)	4839.6 (14.0)	4484.7 (17.1)	4465.1 (17.0)	4443.3 (17.5)	4424 0 (16.7)
InKind × rd 4	0.085 (0.28)	-2170.8	-1663.1	-1625.3	- <u>15</u> 50.8	-1354.5
Unfront \times UltraPoor \times rd 4	0.176	(43.1) 13502.2	(55.3) 12728.7	(55.7) 12487.7 (6.6)	(57.6) 12398.9	(62.0) 12393.2
WithGrace × UltraPoor × rd 4	(0.38) 0.116 (0.32)	(4.8) -8823.9	(6.1) -8348.9	(6.6) -7966.6	(6.5) -8329.2 (25.6)	(7.1) -7792.7
InKind × IlltraPoor × rd 4	(0.32)	(23.8) 4042.5 (40.7)	(25.7) 2384.3 (60.7)	(27.6) 2120.3 (72.4)	2229.1	(28.7) 1098.8 (85.4)
AdiCattle0 × rd 4	(0.24) 0.050	(49.7)	(69.7)	(72.4)	(71.4)	(85.4) -296.6
AdiCattle0 × Unfront × rd 4	(0.22) 0.039					(93.3) -6937.5
AdiCattle0 × WithGrace × rd 4	(0.19) 0.024					(39.8) 8771.2
AdiCattle0 × InKind × rd 4	(0.15)					(45.8) -11496 8
FloodInRd1	(0.12) 0.491				659.2	(30.4)
Head literate()	(0.50) 0.114				(68.4) -921.0	(71.9) -673.9
livestock value ₁	(0.32) 5315.315		0.4	0.4	(64.9) 0.4	(73.4)
HHsize0	(12450.23)		(0.0)	(0.0)	(0.0) 1288.2	(0.0) 1306.5
mean of dependent variable	(1.43)	25986	25986	25986	(1.1) 25986	(1.1) 25986
T=2		40 106	40 106	40 106	40 106	40 106
$T = 3$ $T = 4$ \bar{R}_{-}^{2}		582 0.039	582 0.093	582 0.098	582 0.105	582 0.106
N N	1998	1998	1998	1998	1998	1998
Estimated with CHV administrativ	io and survey d		-01			

Table 110: ANCOVA estimation of livestock values, cattle rearing experiences

		mean/std			(1)		
	Adi	Own	None	Adi	Own	None	
(Intercept)				24608.9 (0.0)	27911.4 (0.0)	18234.3 (0.0)	
Large	0.289 (0.45)	0.324 (0.47)	0.255 (0.44)	2460.2 (62.2)	18762.5 (2.0)	7221.6 (0.5)	
LargeGrace	0.180 (0.39)	0.252 (0.43)	0.262 (0.44)	8853.0 (12.4)	4550.4 (29.1)	4421.2 (8.0)	
Cattle	0.302 (0.46)	0.229 (0.42)	0.266 (0.44)	1499.8 (73.7)	4457.2 (14.9)	5247.6 (2.1)	
FloodInRd1	0.613 (0.49)	0.494 (0.50)	0.462 (0.50)				
Head literate0	0.121 (0.33)	0.157 (0.36)	0.099 (0.30)				
livestock value ₁		27300.771 (14001.64)					
HHsize()	4.364 (1.25)	4.506 (1.39)	4.100 (1.47)				
mean of dependent variable $T = 2$				27368 1	36155 4	22629 35	
T = 3 $T = 4$				17 90	11 121	78 371	

TABLE 110: ANCOVARESTIMATION OF LIVESTOCK VALUES, CATTLE REARING EXPERIENCES (CONTINUED)

N	305	389	1304	305	389	1304
		(2)			(3)	
(Intercept)	Adi	Own	None	Adi	Own	None
	24608.9	22807.9	18234.3	11551.0	20057.7	13507.8
	(0.0)	(0.0)	(0.0)	(5.0)	(3.6)	(0.0)
Large	2460.2	18486.5	7221.6	1909.0	18336.8	6842.7
	(62.2)	(1.8)	(0.5)	(68.3)	(2.3)	(0.7)
LargeGrace	8853.0	4389.6	4421.2	9387.7	5579.9	4305.5
	(12.4)	(32.5)	(8.0)	(7.7)	(22.0)	(9.0)
Cattle	1499.8	4864.2	5247.6	921.6	5587.9	5078.3
	(73.7)	(14.0)	(2.1)	(83.5)	(11.7)	(2.4)
FloodInRd1				-2605.8 (41.7)	1865.4 (68.9)	1138.4 (50.2)
Head literate0				4546.1 (34.3)	-5026.7 (26.3)	533.9 (79.7)
livestock value ₁		0.2 (26.4)			0.2 (35.1)	
HHsize()				3286.3 (1.7)	558.8 (76.2)	1053.7 (3.4)
mean of dependent variable $T = 2$	27368	36155	22629	27368	36155	22629
	1	4	35	1	4	35
T = 3 $T = 4$	17	11	78	17	11	78
	90	121	371	90	121	371
$ar{R}^2 N$	0.011	0.074	0.018	0.046	0.072	0.024
	305	389	1304	305	389	1304

Source: Estimated with GUK administrative and survey data.

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Narrow net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline. Adi and None subgroups do not own cattle at the baseline. We used net asset values at the baseline NetAssets0 in place of NumCows0 in ANCOVA estimation.

TABLE 111: ANCOVA ESTIMATION OF LIVESTOCK VALUES BY ATTRIBUTES, CATTLE REARING EXPERIENCES

		mean/std			(1)	
					_	
	Adi	Own	None	Adi	Own	None
(Intercept)				24608.9 (0.0)	27911.4 (0.0)	18234.3 (0.0)
Unfront	0.770 (0.42)	0.805 (0.40)	0.783 (0.41)	2460.2 (62.2)	18762.5 (2.0)	7221.6 (0.5)
WithGrace	0.482 (0.50)	0.481 (0.50)	0.528 (0.50)	6392.7 (27.0)	-14212.1 (9.8)	-2800.4 (26.7)
InKind	0.302 (0.46)	0.229 (0.42)	0.266 (0.44)	-7353.1 (16.9)	-93.2 (98.3)	826.5 (71.3)
FloodInRd1	0.613 (0.49)	0.494 (0.50)	0.462 (0.50)			
Head literate0	0.121 (0.33)	0.157 (0.36)	0.099 (0.30)			
livestock value ₁		27300.771 (14001.64)				
HHsize0	4.364 (1.25)	4.506 (1.39)	4.100 (1.47)			
mean of dependent variable $T = 2$				27368 1	36155 4	22629 35
T = 3 $T = 4$				17 90	11 121	78 371
$ar{R}^2 N$	305	389	1304	0.011 305	0.067 389	0.018 1304

Table 111: ANCOVA estimation of livestock values by attributes, cattle rearing experiences (continued)

		(2)			(3)	
(Intercept)	Adi	Own	None	Adi	Own	None
	24608.9	22807.9	18234.3	11551.0	20057.7	13507.8
	(0.0)	(0.0)	(0.0)	(5.0)	(3.6)	(0.0)
Unfront	2460.2	18486.5	7221.6	1909.0	18336.8	6842.7
	(62.2)	(1.8)	(0.5)	(68.3)	(2.3)	(0.7)
WithGrace	6392.7 (27.0)	-14096.9 (9.1)	-2800.4 (26.7)	7478.7 (16.2)	-12756.9 (16.2)	-2537.2 (33.3)
InKind	-7353.1	474.6	826.5	-8466.2	8.0	772.8
	(16.9)	(91.6)	(71.3)	(11.2)	(99.9)	(72.9)
FloodInRd1				-2605.8 (41.7)	1865.4 (68.9)	1138.4 (50.2)
Head literate()				4546.1 (34.3)	-5026.7 (26.3)	533.9 (79.7)
livestock value ₁		0.2 (26.4)			0.2 (35.1)	
HHsize()				3286.3 (1.7)	558.8 (76.2)	1053.7 (3.4)
mean of dependent variable $T = 2$	27368	36155	22629	27368	36155	22629
	1	4	35	1	4	35
T = 3 $T = 4$	17	11	78	17	11	78
	90	121	371	90	121	371
$ar{R}^2 N$	0.011	0.074	0.018	0.046	0.072	0.024
	305	389	1304	305	389	1304

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Narrow net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline. Adi and None subgroups do not own cattle at the baseline. We used net asset values at the baseline NetAssets0 in place of NumCows0 in ANCOVA estimation.

Table 112: ANCOVA estimation of livestock values by period, cattle rearing experiences

		mean/std			(1)	
	Adi	Own	None	Adi	Own	None
(Intercept)				21787.5 (0.0)	27200.6 (0.0)	14561.5 (0.0)
Large	0.289 (0.45)	0.324 (0.47)	0.255 (0.44)	3420.7 (45.9)	18026.1 (1.9)	7318.5 (0.9)
LargeGrace	$0.180 \\ (0.39)$	0.252 (0.43)	$0.262 \\ (0.44)$	9026.8 (9.5)	5271.9 (21.2)	3574.7 (15.0)
Cattle	0.302 (0.46)	0.229 (0.42)	0.266 (0.44)	2367.8 (58.5)	3876.2 (22.1)	5048.1 (3.3)
rd 3	0.351 (0.48)	0.344 (0.48)	$0.348 \\ (0.48)$	886.0 (66.1)	-175.4 (93.1)	4434.8 (0.0)
Large × rd 3	0.098 (0.30)	0.108 (0.31)	0.088 (0.28)	-6914.6 (32.9)	2742.9 (61.8)	-1486.8 (63.7)
LargeGrace × rd 3	0.069 (0.25)	$0.085 \\ (0.28)$	$0.089 \\ (0.28)$	-5485.7 (30.7)	-5765.6 (26.5)	3918.9 (13.4)
Cattle \times rd 3	0.102 (0.30)	0.082 (0.28)	0.090 (0.29)	-4923.0 (35.7)	3125.6 (51.0)	-834.8 (72.3)
rd 4	0.325 (0.47)	0.314 (0.46)	0.330 (0.47)	6243.1 (6.5)	3035.0 (25.5)	7236.5 (0.0)
Large × rd 4	0.102 (0.30)	0.105 (0.31)	0.089 (0.28)	-6165.0 (46.9)	5512.5 (47.1)	-391.8 (90.7)
LargeGrace × rd 4	$0.056 \\ (0.23)$	0.082 (0.28)	$0.086 \\ (0.28)$	4370.0 (69.5)	-3013.0 (65.9)	6176.6 (4.0)
Cattle × rd 4	0.098 (0.30)	0.067 (0.25)	0.087 (0.28)	-6354.9 (41.2)	4720.0 (44.8)	3412.9 (20.9)
FloodInRd1	0.613 (0.49)	0.494 (0.50)	0.462 (0.50)			
Head literate0	0.121 (0.33)	0.157 (0.36)	0.099 (0.30)			
livestock value ₁		27300.771 (14001.64)				
HHsize0	4.364 (1.25)	4.506 (1.39)	4.100 (1.47)			
mean of dependent variable $T = 2$				27368 1	36155 4	22629 35
T = 3 $T = 4$				17 90	11 121	78 371
$ar{R}^2 N$	305	389	1304	0.009 305	0.054 389	0.045 1304

Table 112: ANCOVA estimation of livestock values by period, cattle rearing experiences (continued)

		(2)			(3)	
(Intercept)	Adi	Own	None	Adi	Own	None
	21787.5	22019.8	14561.5	8564.6	19093.2	9686.7
	(0.0)	(0.0)	(0.0)	(17.2)	(4.9)	(0.1)
Large	3420.7	17746.5	7318.5	2834.5	17588.7	6912.9
	(45.9)	(1.7)	(0.9)	(50.4)	(2.3)	(1.3)
LargeGrace	9026.8	5103.4	3574.7	9480.2	6293.3	3445.6
	(9.5)	(25.2)	(15.0)	(5.9)	(16.4)	(16.7)
Cattle	2367.8	4246.3	5048.1	1803.5	4981.0	4859.1
	(58.5)	(21.6)	(3.3)	(67.6)	(18.0)	(3.7)
rd 3	886.0 (66.1)	-194.4 (92.3)	4434.8 (0.0)	1134.3 (58.0)	-186.8 (92.6)	4478.3 (0.0)
Large × rd 3	-6914.6	2797.3	-1486.8	-6910.4	2857.0	-1441.4
	(32.9)	(61.3)	(63.7)	(33.0)	(60.6)	(64.8)
LargeGrace \times rd 3	-5485.7 (30.7)	-5673.2 (26.8)	3918.9 (13.4)	-5209.5 (34.0)	-5583.3 (28.2)	3940.2 (13.9)
Cattle \times rd 3	-4923.0	3252.6	-834.8	-5162.9	3324.8	-798.1
	(35.7)	(49.2)	(72.3)	(34.0)	(48.4)	(73.7)
rd 4	6243.1	3139.8	7236.5	6545.1	3182.3	7286.8
	(6.5)	(24.4)	(0.0)	(5.2)	(23.5)	(0.0)
Large × rd 4	-6165.0	5440.9	-391.8	-5766.3	5442.9	-273.6
	(46.9)	(47.7)	(90.7)	(49.4)	(47.7)	(93.5)
LargeGrace × rd 4	4370.0	-3053.6	6176.6	4977.0	-2962.8	6293.8
	(69.5)	(65.5)	(4.0)	(65.1)	(66.9)	(4.0)
Cattle \times rd 4	-6354.9	5247.1	3412.9	-6033.8	5322.2	3589.8
	(41.2)	(40.9)	(20.9)	(42.6)	(41.0)	(18.6)
FloodInRd1				-2787.4 (39.5)	1853.4 (69.5)	1186.2 (48.1)
Head literate()				4669.9 (33.8)	-5011.2 (27.0)	442.7 (83.2)
livestock value ₁		0.2 (26.3)			0.2 (35.1)	
HHsize0				3308.8 (1.8)	598.2 (74.8)	1082.8 (3.1)
mean of dependent variable $T = 2$	27368	36155	22629	27368	36155	22629
	1	4	35	1	4	35
T = 3 $T = 4$	17	11	78	17	11	78
	90	121	371	90	121	371
$ar{R}^2 N$	0.009	0.061	0.045	0.046	0.059	0.052
	305	389	1304	305	389	1304

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Narrow net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline. Adi and None subgroups do not own cattle at the baseline. We used net asset values at the baseline NetAssets0 in place of NumCows0 in ANCOVA estimation.

Table 113: ANCOVA estimation of livestock values by attributes and period, cattle rearing experiences

		mean/std			(1)					
	Adi	Own	None	Adi	Own	None				
(Intercept)	7101	3.	110110	21787.5 (0.0)	27200.6 (0.0)	14561.5 (0.0)				
Unfront	0.770 (0.42)	0.805 (0.40)	0.783 (0.41)	3420.7 (45.9)	18026.1 (1.9)	7318.5 (0.9)				
WithGrace	0.482 (0.50)	0.481 (0.50)	0.528 (0.50)	5606.1 (30.3)	-12754.2 (11.4)	-3743.8 (16.2)				
InKind	0.302 (0.46)	0.229 (0.42)	0.266 (0.44)	-6659.0 (20.1)	-1395.7 (73.2)	1473.4 (51.0)				
rd 3	0.351 (0.48)	0.344 (0.48)	$0.348 \\ (0.48)$	886.0 (66.1)	-175.4 (93.1)	4434.8 (0.0)				
Unfront × rd 3	0.269 (0.44)	0.275 (0.45)	0.268 (0.44)	-6914.6 (32.9)	2742.9 (61.8)	-1486.8 (63.7)				
WithGrace \times rd 3	0.170 (0.38)	0.167 (0.37)	0.179 (0.38)	1428.8 (81.3)	-8508.5 (16.8)	5405.7 (9.2)				
InKind \times rd 3	0.102 (0.30)	0.082 (0.28)	0.090 (0.29)	562.8 (88.4)	8891.2 (10.7)	-4753.6 (5.1)				
rd 4	0.325 (0.47)	0.314 (0.46)	$0.330 \\ (0.47)$	6243.1 (6.5)	3035.0 (25.5)	7236.5 (0.0)				
Unfront × rd 4	0.256 (0.44)	0.254 (0.44)	0.262 (0.44)	-6165.0 (46.9)	5512.5 (47.1)	-391.8 (90.7)				
WithGrace × rd 4	0.154 (0.36)	0.149 (0.36)	0.173 (0.38)	10535.0 (33.5)	-8525.4 (29.8)	6568.4 (5.9)				
InKind × rd 4	0.098 (0.30)	0.067 (0.25)	0.087 (0.28)	-10724.8 (30.0)	7733.0 (26.1)	-2763.7 (33.6)				
FloodInRd1	0.613 (0.49)	0.494 (0.50)	0.462 (0.50)							
Head literate0	0.121 (0.33)	0.157 (0.36)	0.099 (0.30)							
livestock value ₁		27300.771 (14001.64)								
HHsize0	4.364 (1.25)	4.506 (1.39)	4.100 (1.47)							
mean of dependent variable $T = 2$				27368 1	36155 4	22629 35				
T = 3 $T = 4$				17 90	11 121	78 371				
$ar{R}^2$	305	389	1304	0.009 305	0.054 389	0.045 1304				

TABLE 113: ANCOVA ESTIMATION OF LIVESTOCK VALUES BY ATTRIBUTES AND PERIOD, CATTLE REARING EXPERIENCES (CONTINUED)

		(2)		(3)					
(Intercept)	Adi	Own	None	Adi	Own	None			
	21787.5	22019.8	14561.5	8564.6	19093.2	9686.7			
	(0.0)	(0.0)	(0.0)	(17.2)	(4.9)	(0.1)			
Upfront	3420.7	17746.5	7318.5	2834.5	17588.7	6912.9			
	(45.9)	(1.7)	(0.9)	(50.4)	(2.3)	(1.3)			
WithGrace	5606.1 (30.3)	-12643.1 (10.7)	-3743.8 (16.2)	6645.7 (18.2)	-11295.4 (18.8)	-3467.3 (20.7)			
InKind	-6659.0 (20.1)	-857.1 (84.1)	1473.4 (51.0)	-7676.7 (14.8)	-1312.3 (75.1)	1413.5 (52.3)			
rd 3	886.0 (66.1)	-194.4 (92.3)	4434.8 (0.0)	1134.3 (58.0)	-186.8 (92.6)	4478.3 (0.0)			
Unfront \times rd 3	-6914.6	2797.3	-1486.8	-6910.4	2857.0	-1441.4			
	(32.9)	(61.3)	(63.7)	(33.0)	(60.6)	(64.8)			
WithGrace \times rd 3	1428.8	-8470.5	5405.7	1700.9	-8440.3	5381.7			
	(81.3)	(16.8)	(9.2)	(77.9)	(17.6)	(9.7)			
InKind \times rd 3	562.8	8925.8	-4753.6	46.7	8908.1	-4738.3			
	(88.4)	(10.5)	(5.1)	(99.1)	(10.8)	(5.6)			
rd 4	6243.1	3139.8	7236.5	6545.1	3182.3	7286.8			
	(6.5)	(24.4)	(0.0)	(5.2)	(23.5)	(0.0)			
Unfront × rd 4	-6165.0 (46.9)	5440.9 (47.7)	-391.8 (90.7)	-5766.3 (49.4)	5442.9 (47.7)	-273.6 (93.5)			
WithGrace × rd 4	10535.0	-8494.5	6568.4	10743.3	-8405.7	6567.5			
	(33.5)	(30.0)	(5.9)	(31.9)	(31.2)	(6.2)			
InKind × rd 4	-10724.8 (30.0)	8300.7 (24.6)	-2763.7 (33.6)	-11010.8 (28.0)	8285.0 (24.5)	-2704.0 (35.2)			
FloodInRd1				-2787.4 (39.5)	1853.4 (69.5)	1186.2 (48.1)			
Head literate()				4669.9 (33.8)	-5011.2 (27.0)	442.7 (83.2)			
livestock value ₁		0.2 (26.3)			0.2 (35.1)				
HHsize()				3308.8 (1.8)	598.2 (74.8)	1082.8 (3.1)			
mean of dependent variable $T = 2$	27368	36155	22629	27368	36155	22629			
	1	4	35	1	4	35			
T = 3 $T = 4$	17	11	78	17	11	78			
	90	121	371	90	121	371			
$ar{R}^2 N$	0.009	0.061	0.045	0.046	0.059	0.052			
	305	389	1304	305	389	1304			

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Narrow net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline. Adi and None subgroups do not own cattle at the baseline. We used net asset values at the baseline NetAssets0 in place of NumCows0 in ANCOVA estimation.

III.5.12 Cattle holding, experienced vs. inexperienced

		Att	ritI	n									
Arm			2	3 4	9	Sum							
tradi	itiona	al	7	4 20	144	175							
large	9		5	2 1	191	199							
large	e grad	ce 1	2	3 3	170	188							
cattl	Le		5	5 13	176	199							
Sum		2	29 1	4 37	681	761							
Nι	umCows	S											
tee	0	1	2	3	4		5	6	7	8	9	<na></na>	Sum
2	15	308	153	40	11		1	2	0	1	1	196	728
3	5	337	175	40	15		1	2	2	1	0	110	688
4	4	218	201	54	11		4	2	0	1	1	86	582
Sum	24	863	529	134	37	,	6	6	2	3	2	392	1998

```
NumCows0
Cattle
     0
         1 2 3
                     5 Sum
 Adi
    108
         0 0 0 0 0 108
         0
            0
                      0 484
 None 484
                0
                    0
      0 98 30
               5
 Own
                    2
                       1 136
 Sum
    592 98
            30
                       1 728
```

```
[1]
~ + dummyLarge + dummyLargeGrace + dummyCattle
+ NumCows0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.Large + dummyAdiCattle0.LargeGrace + dummyAdiCattle0.Cattle + NA
[2]
~ + dummyUltraPoor + dummyLargeSize + dummyWithGrace
+ dummyWithGrace + dummyInKind + UDdummyUltraPoor
+ dummyLargeSize.UltraPoor + UDdummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor
+ UDdummyWithGrace.UltraPoor + dummyInKind.UltraPoor + UDdummyInKind.UltraPoor
+ NumCows0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKind + NA
[3]
~ + dummyLargeSize + dummyWithGrace + dummyInKind
+ NumCows0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.LargeSize + dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKind + NA
[4]
~ + Time.3 + Time.4 + dummyLarge
+ dummyLarge + dummyLargeGrace + dummyCattle
+ dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3
+ dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
+ NumCows0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3 + dummyAdiCatt
+ dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace
```

+ dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.0

```
+ dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4
[5]
~ + Time.3 + Time.4 + dummyLargeSize
+ dummyLargeSize + dummyWithGrace + dummyInKind
+ dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3
+ dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4
+ NumCows0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize + dummyAdiCattle
+ dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 + dummyAdiCattle0.Wi
+ dummyAdiCattle0.WithGrace.Time3 + dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.In
+ dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4
[6]
~ + Time.3 + Time.4 + dummyLarge
+ dummyLarge + dummyLargeGrace + dummyCattle
+ dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3
+ dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4
+ dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4
+ dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor
+ dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3
+ dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.
+ NumCows0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3 + dummyAdiCatt
+ dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace
+ dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.
+ dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4
[7]
  + Time.3 + Time.4 + dummyUltraPoor
+ dummyUltraPoor + dummyLargeSize + dummyWithGrace
+ dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3
+ dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4
+ dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4
+ dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
+ dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraF
+ dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.T
+ NumCows0
+ dummyAdiCattle0
FloodInRd1 + HHsize0 + HeadLiteracy0 + NA
dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize + dummyAdiCattle
```

+ dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 + dummyAdiCattle0.Wi

```
+ dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4
[1] excl
[[1]]
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle
[[2]]
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle + NumCows0
[[3]]
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle + NumCows0 +
    dummyAdiCattle0
ΓΓ4]]
{\tt NumCows} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\
    HHsize0 + HeadLiteracy0 + NumCows0 + dummyAdiCattle0
[[5]]
NumCows ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    HHsize0 + HeadLiteracy0 + NumCows0 + dummyAdiCattle0.Large +
    dummyAdiCattle0.LargeGrace + dummyAdiCattle0.Cattle + dummyAdiCattle0
[[6]]
NumCows ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    HHsize0 + HeadLiteracy0 + NumCows0 + dummyAdiCattle0.Large +
    dummyAdiCattle0.LargeGrace + dummyAdiCattle0.Cattle + dummyAdiCattle0
[1] exclP
[[1]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[3]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyAdiCattle0
[[4]]
NumCows ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + dummyLargeSize.UltraPoor | +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyAdiCattle0
[[5]]
NumCows ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + dummyLargeSize.UltraPoor
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyAdiCattle0.LargeSize +
    dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKind + dummyAdiCattle0
ΓΓ6]]
NumCows ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + dummyLargeSize.UltraPoor
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyAdiCattle0.LargeSize +
    dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKind + dummyAdiCattle0
```

+ dummyAdiCattle0.WithGrace.Time3 + dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.Inl

```
[1] excla
[[1]]
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind + NumCows0
[[3]]
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind + NumCows0 +
       dummyAdiCattle0
[[4]]
NumCows ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
       HHsize0 + HeadLiteracy0 + NumCows0 + dummyAdiCattle0
[[5]]
NumCows ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
       HHsize0 + HeadLiteracy0 + NumCows0 + dummyAdiCattle0.LargeSize +
       dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKind + dummyAdiCattle0
ΓΓ6]]
{\tt NumCows} \ \sim \ {\tt FloodInRd1} \ + \ {\tt dummyLargeSize} \ + \ {\tt dummyWithGrace} \ + \ {\tt dummyInKind} \ + \\
       HHsize0 + HeadLiteracy0 + NumCows0 + dummyAdiCattle0.LargeSize +
       dummyAdiCattle0.WithGrace + dummyAdiCattle0.InKind + dummyAdiCattle0
[1] exclT
[[1]]
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
       dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
       dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
       dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
       dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
       NumCows0
[[3]]
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
       dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
       dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
       NumCows0 + dummyAdiCattle0
[[4]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
       dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
       dummyAdiCattle0
[[5]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
       dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
       dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3
       \tt dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace + dummyAdiCattle0.
       dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 +
       dummyAdiCattle0.Cattle + dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 -
       dummyAdiCattle0
```

```
[[6]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
       dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
       dummyAdiCattle0.Large + dummyAdiCattle0.Time3 + dummyAdiCattle0.Large.Time3 +
       dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 + dummyAdiCattle0.LargeGrace +
       dummyAdiCattle0.LargeGrace.Time3 + dummyAdiCattle0.LargeGrace.Time4 +
       dummyAdiCattle0.Cattle + dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 -
       dummyAdiCattle0
[1] exclTa
[[1]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + NumCows0
[[3]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + NumCows0 + dummyAdiCattle0
[[4]]
{\tt NumCows} \ \sim \ {\tt FloodInRd1} \ + \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLargeSize} \ + \ {\tt dummyWithGrace} \ + \ {\tt time.4} \ + \ {\tt dummyLargeSize} \ + \ {\tt dummyWithGrace} \ + \ {\tt time.4} \ + \ {
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
       dummyAdiCattle0
[[5]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
       dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize +
       dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 +
       dummyAdiCattle0.WithGrace + dummyAdiCattle0.WithGrace.Time3 +
       dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.InKind +
       dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4 +
       dummyAdiCattle0
[[6]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
       dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.LargeSize +
       dummyAdiCattle0.LargeSize.Time3 + dummyAdiCattle0.LargeSize.Time4 +
       dummyAdiCattle0.WithGrace + dummyAdiCattle0.WithGrace.Time3 +
       dummyAdiCattle0.WithGrace.Time4 + dummyAdiCattle0.InKind +
       dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4 +
       dummyAdiCattle0
```

```
[1] exclTP
[[1]]
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
   dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
   dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
   dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
   dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
   dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   NumCows0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
   dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
   dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
   dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[3]]
NumCows \sim Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
   dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   NumCows0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
   dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyAdiCattle0
[[4]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   HHsize0 + HeadLiteracy0 + NumCows0 + dummyLarge.UltraPoor +
   dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
   dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
   dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4 + dummyAdiCattle0
[[5]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
   dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
   dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
   dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
   HHsize0 + HeadLiteracy0 + NumCows0 + dummyLarge.UltraPoor +
   dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
   dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
   dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
   dummyCattle.UltraPoor.Time4 + dummyAdiCattle0.Large + dummyAdiCattle0.Time3
   dummyAdiCattle0.Large.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.|Time4 +
   dummyAdiCattle0.LargeGrace + dummyAdiCattle0.LargeGrace.Time3 +
    dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.Cattle +
    dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 +
   dummyAdiCattle0
```

NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +

```
dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    HHsize0 + HeadLiteracy0 + NumCows0 + dummyLarge.UltraPoor +
    dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
    dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
    dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
    dummyCattle.UltraPoor.Time4 + dummyAdiCattle0.Large + dummyAdiCattle0.Time3
    dummyAdiCattle0.Large.Time3 + dummyAdiCattle0.Time4 + dummyAdiCattle0.Large.Time4 +
    dummyAdiCattle0.LargeGrace + dummyAdiCattle0.LargeGrace.Time3 +
    dummyAdiCattle0.LargeGrace.Time4 + dummyAdiCattle0.Cattle +
    dummyAdiCattle0.Cattle.Time3 + dummyAdiCattle0.Cattle.Time4 +
    dummyAdiCattle0
[1] exclTPa
[[1]]
NumCows ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
NumCows ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyAdiCattle0
[[4]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   HHsize0 + HeadLiteracy0 + NumCows0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyAdiCattle0
[[5]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
```

dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +

```
dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    HHsize0 + HeadLiteracy0 + NumCows0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.|Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 |+
    dummyAdiCattle0.LargeSize + dummyAdiCattle0.LargeSize.Time3 +
    dummyAdiCattle0.LargeSize.Time4 + dummyAdiCattle0.WithGrace +
    dummyAdiCattle0.WithGrace.Time3 + dummyAdiCattle0.WithGrace.Time4 +
    dummyAdiCattle0.InKind + dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKind.Time4 -
    dummyAdiCattle0
[[6]]
NumCows ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   HHsize0 + HeadLiteracy0 + NumCows0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. | Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyAdiCattle0.Time3 + dummyAdiCattle0.Time4 |+
    dummyAdiCattle0.LargeSize + dummyAdiCattle0.LargeSize.Time3 +
    dummyAdiCattle0.LargeSize.Time4 + dummyAdiCattle0.WithGrace +
    dummyAdiCattle0.WithGrace.Time3 + dummyAdiCattle0.WithGrace.Time4 +
    dummyAdiCattle0.InKind + dummyAdiCattle0.InKind.Time3 + dummyAdiCattle0.InKi
    dummyAdiCattle0
```

```
[1] excl
[[1]]
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle
ΓΓ2]]
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle
NumCows ~ NetValue0 + FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0
[1] exclP
[[1]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
ГГ377
NumCows ~ NetValue0 + FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[4]]
```

```
NumCows ~ NetValue0 + FloodInRd1 + dummyUltraPoor + dummyLargeSize +
        dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
        dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[1] excla
[[1]]
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + dummyLargeSize + dummyWithGrace +
        dummyInKind + HHsize0 + HeadLiteracy0
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + dummyLargeSize + dummyWithGrace +
       dummyInKind + HHsize0 + HeadLiteracy0
[1] exclT
[[1]]
{\tt NumCows} \ \sim \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt dummyCattle} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \ {\tt du
        dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
        dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
        dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
        dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLarge +
        dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
        dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
        dummyCattle.Time4 + HHsize0 + HeadLiteracy0
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLarge +
        dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
        dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
        dummyCattle.Time4 + HHsize0 + HeadLiteracy0
[1] exclTa
[[1]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
        dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
        dummyInKind.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
        dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
        dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
        dummyInKind.Time4
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
        dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3
        dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
        dummyInKind.Time4 + HHsize0 + HeadLiteracy0
```

```
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0
[1] excl
ΓΓ177
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle + NumCows0
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + dummyLarge + dummyLargeGrace +
    dummyCattle + HHsize0 + HeadLiteracy0 + NumCows0
ΓΓ4]]
NumCows ~ NetValue0 + FloodInRd1 + dummyLarge + dummyLargeGrace +
   dummyCattle + HHsize0 + HeadLiteracy0 + NumCows0
[1] exclP
[[1]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
   NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[1] excla
[[1]]
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind + NumCows0
NumCows ~ NetValue0 + FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0
NumCows ~ NetValue0 + FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0
[1] exclT
[[1]]
```

```
{\tt NumCows} \ \sim \ {\tt Time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLarge} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt time.3} \ + \ {\tt Time.4} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt time.4} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt time.4} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt time.4} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyCattle} \ + \\ {\tt time.4} \ + \ {\tt dummyLargeGrace} \ + \ {\tt dummyLargeGrac
        dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
       dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
       dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
       dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
       NumCows0
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLarge +
       dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
        dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLarge +
       dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0
[1] exclTa
[[1]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + NumCows0
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
        dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
       dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
       dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
        dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
       dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0
[1] excl
[[1]]
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle
NumCows ~ dummyLarge + dummyLargeGrace + dummyCattle
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + dummyLarge + dummyLargeGrace +
       dummyCattle + HHsize0 + HeadLiteracy0
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + dummyLarge + dummyLargeGrace +
       dummyCattle + HHsize0 + HeadLiteracy0
```

```
[1] exclP
[[1]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
NumCows ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
ΓΓ4]]
NumCows ~ NetValue0 + FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[1] excla
[[1]]
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
NumCows ~ dummyLargeSize + dummyWithGrace + dummyInKind
NumCows ~ NetValue0 + FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0
[1] exclT
[[1]]
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
    dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
[[3]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLarge +
    dummyLargeGrace + dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0
[1] exclTa
```

```
[[1]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
   dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4
[[2]]
NumCows ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
   dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
   dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
   dummyInKind.Time4 + HHsize0 + HeadLiteracy0
[[4]]
NumCows ~ NetValue0 + FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0
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TABLE 114: ANCOVA ESTIMATION OF CATTLE HOLDING, CATTLE REARING EXPERIENCES

covariates	maan/std	(1)	(2)	(2)	(4)	(5)
	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		1.49 (0.0)	1.39 (0.0)	1.36 (0.0)	(0.0)	1.14 (0.0)
Large	0.273 (0.45)	0.39 (0.9)	0.37 (0.6)	0.37 (0.6)	0.36 (1.0)	0.37 (0.9)
LargeGrace	0.248 (0.43)	0.07 (53.9)	0.08 (47.6)	0.09 (42.9)	0.09 (40.1)	0.10 (34.9)
Cattle	0.264 (0.44)	0.00 (98.8)	0.02 (77.9)	0.02 (76.9)	0.02 (79.0)	0.03 (73.0)
AdiCattle0	0.153 (0.36)			0.15 (5.7)	0.14 (9.5)	0.16 (7.5)
AdiCattle0 × Large	0.044 (0.21)					-0.49 (6.6)
AdiCattle0 × LargeGrace	0.028 (0.16)					0.15 (60.5)
AdiCattle $0 \times Cattle$	0.046 (0.21)					-0.18 (44.3)
FloodInRd1	0.491 (0.50)				0.03 (68.1)	0.03 (74.2)
Head literate()	0.114 (0.32)				0.01 (92.7)	0.02 (84.3)
NumCattle0	0.266 (0.62)		0.30 (0.3)	0.32 (0.1)	0.31 (0.4)	0.30 (0.3)
HHsize0	4.219 (1.43)				0.05 (5.2)	0.05 (5.3)
mean of dependent variable $T = 2$		2 85	2 85	2 85	2 85	2 85
T = 3 $T = 4$		168 395	168 395	168 395	168 395	168 395
$ar{R}^2 N$	1998	0.03 1606	0.074 1606	0.076 1606	0.08 1606	0.087 1606

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 115: ANCOVA ESTIMATION OF CATTLE HOLDING BY ATTRIBUTES, CATTLE REARING EXPERIENCES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		1.49 (0.0)	1.39 (0.0)	1.36 (0.0)	1.15 (0.0)	1.14 (0.0)
Unfront	0.785 (0.41)	0.39 (0.9)	0.37 (0.6)	0.37 (0.6)	0.36 (1.0)	0.37 (0.9)
WithGrace	0.512 (0.50)	-0.32 (6.2)	-0.29 (5.1)	-0.28 (5.9)	-0.26 (9.1)	-0.27 (8.6)
InKind	0.264 (0.44)	-0.07 (50.7)	-0.06 (57.5)	-0.07 (52.5)	-0.07 (47.7)	-0.08 (45.3)
AdiCattle0	0.153 (0.36)			0.15 (5.7)	0.14 (9.5)	0.16 (7.5)
AdiCattle0 × Unfront	0.118 (0.32)					-0.49 (6.6)
AdiCattle0 × WithGrace	0.074 (0.26)					0.64 (2.0)
AdiCattle0 × InKind	0.046 (0.21)					-0.33 (18.3)
FloodInRd1	0.491 (0.50)				0.03 (68.1)	0.03 (74.2)
Head literate0	0.114 (0.32)				0.01 (92.7)	0.02 (84.3)
NumCattle0	0.266 (0.62)		0.30 (0.3)	0.32 (0.1)	0.31 (0.4)	0.30 (0.3)
HHsize0	4.219 (1.43)				0.05 (5.2)	0.05 (5.3)
mean of dependent variable $T = 2$		2 85	2 85	2 85	2 85	2 85
T = 3 $T = 4$		168 395	168 395	168 395	168 395	168 395
$ar{R}^2 N$	1998	0.03 1606	0.074 1606	0.076 1606	0.08 1606	0.087 1606

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

TABLE 116: ANCOVA ESTIMATION OF CATTLE HOLDING BY PERIOD, CATTLE REARING EXPERIENCES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		(0.0)	$ \begin{array}{c} 1.36 \\ (0.0) \end{array} $	(0.0)	(0.0)	1.10 (0.0)
Large	0.273 (0.45)	0.39 (0.6)	0.37 (0.4)	0.37 (0.4)	0.35 (0.8)	0.37 (0.7)
LargeGrace	$0.248 \\ (0.43)$	0.01 (93.4)	$ \begin{array}{c} 0.02 \\ (87.4) \end{array} $	0.03 (80.9)	0.03 (78.5)	0.04 (71.0)
Cattle	0.264 (0.44)	-0.05 (44.1)	-0.03 (72.0)	-0.03 (73.2)	-0.03 (69.5)	-0.03 (74.1)
AdiCattle0	0.153 (0.36)			0.16 (5.1)	0.14 (8.8)	0.16 (5.4)
AdiCattle() × Large	0.044 (0.21)					-0.47 (6.9)
AdiCattle0 × LargeGrace	0.028 (0.16)					0.21 (44.4)
AdiCattle $0 \times Cattle$	0.046 (0.21)					-0.13 (57.0)
rd 3	0.348 (0.48)	-0.02 (71.4)	0.00 (97.3)	0.00 (95.0)	0.01 (91.9)	0.00 (93.9)
Large × rd 3	0.094 (0.29)	-0.05 (74.9)	-0.05 (75.5)	-0.05 (75.1)	-0.05 (77.1)	-0.04 (79.1)
LargeGrace × rd 3	0.085 (0.28)	0.19 (28.5)	0.20 (25.5)	0.20 (26.6)	0.20 (26.0)	0.20 (25.9)
Cattle \times rd 3	0.091 (0.29)	0.17 (18.0)	0.16 (23.6)	0.16 (24.0)	0.16 (25.1)	0.16 (23.7)
AdiCattle $0 \times rd 3$	0.054 (0.23)					-0.11 (32.2)
AdiCattle0 × Large × rd 3	0.015 (0.12)					-0.20 (58.2)
AdiCattle $0 \times \text{LargeGrace} \times \text{rd } 3$	0.011 (0.10)					-0.39 (21.1)
AdiCattle0 \times Cattle \times rd 3	0.016 (0.12)					-0.13 (68.4)
rd 4	0.326 (0.47)	0.16 (1.0)	0.18 (0.5)	0.19 (0.4)	0.19 (0.4)	0.19 (0.4)
Large × rd 4	0.094 (0.29)	0.04 (80.3)	0.04 (81.9)	0.04 (81.8)	0.05 (78.7)	0.04 (80.4)
LargeGrace × rd 4	0.081 (0.27)	0.41 (3.0)	0.39 (3.2)	0.39 (3.3)	0.40 (3.1)	0.40 (2.5)
Cattle × rd 4	0.085 (0.28)	0.34 (0.8)	0.34 (1.1)	0.34 (1.1)	0.35 (1.1)	0.36 (0.9)
AdiCattle $0 \times rd 4$	0.050 (0.22)					0.10 (57.0)
AdiCattle0 × Large × rd 4	0.016 (0.12)					-0.02 (94.8)
AdiCattle0 × LargeGrace × rd 4	0.009 (0.09)					-0.10 (87.0)
AdiCattle $0 \times \text{Cattle} \times \text{rd } 4$	0.015 (0.12)					-0.28 (42.8)
FloodInRd1	0.491 (0.50)				0.04 (65.7)	0.03 (72.6)
Head literate0	0.114 (0.32)				0.01 (89.0)	0.02 (80.3)
NumCattle0	0.266 (0.62)		0.31 (0.3)	0.32 (0.1)	0.31 (0.4)	0.30 (0.3)
HHsize0	4.219 (1.43)				0.05 (4.6)	0.05 (4.7)
mean of dependent variable $T = 2$		2 85	2 85	2 85	2 85	2 85
T = 3 $T = 4$		168 395	168 395	168 395	168 395	168 395
$ar{R}^2 N$	1998	0.039 1606	0.083 1606	0.086 1606	0.091 1606	0.095 1606

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 117: ANCOVA estimation of cattle holding by period, attributes, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		1.47 (0.0)	1.36 (0.0)	1.33 (0.0)	1.11 (0.0)	1.10 (0.0)
Unfront	0.785 (0.41)	0.39 (0.6)	0.37 (0.4)	0.37 (0.4)	0.35 (0.8)	0.37 (0.7)
WithGrace	0.512 (0.50)	-0.38 (2.6)	-0.35 (1.9)	-0.34 (2.3)	-0.32 (4.0)	-0.33 (3.6)
InKind	0.264 (0.44)	-0.06 (59.8)	-0.05 (68.3)	-0.05 (62.7)	-0.06 (58.3)	-0.07 (53.3)
OwnCattle0	0.195 (0.40)					
AdiCattle0	0.153 (0.36)			0.16 (5.1)	0.14 (8.8)	0.16 (5.4)
AdiCattle $0 \times Upfront$	0.118 (0.32)					-0.47 (6.9)
AdiCattle0 × WithGrace	0.074 (0.26)					0.68 (0.9)
AdiCattle $0 \times InKind$	0.046 (0.21)					-0.34 (16.0)

TABLE 117: ANCOVA ESTIMATION OF CATTLE HOLDING BY PERIOD, ATTRIBUTES, CATTLE REARING EXPERIENCES (CONTINUED)

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
rd 3	0.348 (0.48)	-0.02 (71.4)	0.00 (97.3)	0.00 (95.0)	0.01 (91.9)	0.00 (93.9)
Unfront \times rd 3	0.269 (0.44)	-0.05 (74.9)	-0.05 (75.5)	-0.05 (75.1)	-0.05 (77.1)	-0.04 (79.1)
WithGrace × rd 3	0.176 (0.38)	0.24 (17.1)	0.25 (14.2)	0.25 (14.6)	0.25 (15.0)	0.24 (15.6)
InKind × rd 3	0.091 (0.29)	-0.02 (90.7)	-0.05 (75.1)	-0.04 (76.7)	-0.05 (74.0)	-0.04 (78.5)
AdiCattle $0 \times rd 3$	0.054 (0.23)					-0.11 (32.2)
AdiCattle $0 \times \text{Unfront} \times \text{rd } 3$	0.041 (0.20)					-0.20 (58.2)
AdiCattle0 × WithGrace × rd 3	0.026 (0.16)					-0.19 (53.7)
AdiCattle0 × InKind × rd 3	0.016 (0.12)					0.26 (32.2)
rd 4	0.326 (0.47)	0.16 (1.0)	0.18 (0.5)	0.19 (0.4)	0.19 (0.4)	0.19 (0.4)
Unfront × rd 4	0.260 (0.44)	0.04 (80.3)	0.04 (81.9)	0.04 (81.8)	0.05 (78.7)	0.04 (80.4)
WithGrace × rd 4	0.166 (0.37)	0.36 (7.8)	0.35 (8.3)	0.35 (8.6)	0.35 (8.7)	0.36 (7.0)
InKind × rd 4	0.085 (0.28)	-0.06 (73.2)	-0.05 (77.4)	-0.05 (79.4)	-0.05 (77.9)	-0.05 (78.7)
AdiCattle $0 \times rd 4$	$0.050 \\ (0.22)$					0.10 (57.0)
AdiCattle $0 \times \text{Unfront} \times \text{rd } 4$	0.039 (0.19)					-0.02 (94.8)
AdiCattle $0 \times WithGrace \times rd 4$	0.024 (0.15)					-0.07 (90.2)
AdiCattle0 × InKind × rd 4	0.015 (0.12)					-0.19 (74.0)
FloodInRd1	0.491 (0.50)				0.04 (65.7)	0.03 (72.6)
Head literate0	0.114 (0.32)				0.01 (89.0)	0.02 (80.3)
NumCattle0	$0.266 \\ (0.62)$		(0.31)	0.32 (0.1)	0.31 (0.4)	$0.30 \\ (0.3)$
HHsize()	4.219 (1.43)				0.05 (4.6)	0.05 (4.7)
mean of dependent variable $T = 2$		2 85	2 85	2 85	2 85	2 85
T = 3 T = 4		168 395	168 395	168 395	168 395	168 395
$ar{R}^2$	1998	0.039 1606	0.083 1606	0.086 1606	0.091 1606	0.095 1606

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

Table 118: ANCOVA estimation of cattle holding by arm, poverty status, and period, cattle rearing experiences

covariates	mean/std	(1)	(2)	(3)	(4)
(Intercept)		1.36 (0.0)	1.37 (0.0)	1.21 (0.0)	1.27 (0.0)
Large	0.285 (0.45)	0.48 (1.0)	0.47 (0.7)	0.47 (1.0)	0.43 (0.5)
LargeGrace	0.244 (0.43)	0.30 (4.4)	0.29 (4.4)	0.29 (4.9)	0.30 (5.3)
Cattle	0.275 (0.45)	0.19 (4.3)	0.20 (2.9)	0.20 (3.4)	0.20 (3.6)
OwnCattle0	0.208 (0.41)	0.46 (1.7)	0.03 (94.0)	0.03 (93.2)	(5.0)
AdiCattle0	0.155 (0.36)	0.31 (2.7)	0.31 (2.8)	0.30 (3.5)	
UltraPoor	0.649 (0.48)	-0.04 (57.8)	-0.05 (49.5)	-0.05 (51.1)	-0.03 (69.9)
OwnCattle0 × Large	0.070 (0.26)	(3.7.2)		(/	0.58 (26.0)
OwnCattle $0 \times LargeGrace$	0.055 (0.23)				0.01 (97.1)
OwnCattle $0 \times Cattle$	0.043 (0.20)				0.16 (50.8)
AdiCattle $0 \times Large$	0.046 (0.21)				-0.14 (66.3)
AdiCattle0 × LargeGrace	0.022 (0.15)				0.45 (47.0)
$AdiCattle0 \times Cattle$	0.052 (0.22)				-0.24 (41.8)
Large × UltraPoor	0.184 (0.39)	0.14 (53.4)	0.11 (60.2)	0.11 (58.4)	0.09 (67.0)
LargeGrace × UltraPoor	0.168 (0.37)	0.50 (2.6)	0.48 (3.6)	0.50 (3.0)	0.46 (5.3)
$Cattle \times UltraPoor$	0.194 (0.40)	0.49 (2.5)	0.47 (3.1)	0.48 (3.1)	0.42 (7.0)
OwnCattle0 × rd 3	0.000 (0.00)	(=)	(212)	(212)	-0.09 (94.9)
AdiCattle $0 \times rd 3$	0.000 (0.00)				-1.42 (4.1)
FloodInRd1	0.483 (0.50)			-0.02 (86.9)	-0.02 (86.7)
Head literate0	0.112 (0.32)			0.04 (77.9)	0.06 (62.5)
NumCattle0	0.282 (0.64)		0.32 (30.5)	0.31 (33.6)	0.30 (32.4)
HHsize()	4.256 (1.43)			0.04 (18.0)	0.04 (25.3)
mean of dependent variable \hat{R}^2		0.064	0.075	0.073	0.084
N	582	496	496	496	496

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). UltraPoor is an indicator variable if the household is classified as the ultra poor. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline.

Table 119: ANCOVA estimation of cattle holding by attributes, poverty status, and period, cattle rearing experiences

EARING EXPERIENCES						
covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		(0.0)	1.40 (0.0)	1.36 (0.0)	(0.0)	(0.0)
Unfront	0.785 (0.41)	0.41 (0.2)	0.40 (0.1)	0.40 (0.1)	0.38 (0.2)	0.40 (0.2)
WithGrace	0.512 (0.50)	-0.39 (1.8)	-0.35 (1.0)	-0.34 (1.2)	-0.32 (2.6)	-0.33 (2.5)
InKind	0.264	-0.06	-0.05	-0.05	-0.06	-0.07
AdiCattle0	(0.44) 0.153	(57.3)	(66.6)	(60.3)	(54.9)	(50.6)
UltraPoor	(0.36)	-0.10	-0.11	(2.0) -0.11	(4.0) -0.11	(2.1) -0.10
AdiCattle $0 \times Upfront$	(0.48) 0.118	(16.1)	(13.3)	(12.2)	(13.3)	(16.5) -0.37
AdiCattle0 × WithGrace	(0.32)					(10.0)
	(0.26)					0.60 (1.2)
AdiCattle $0 \times InKind$	0.046 (0.21)					-0.34 (15.9)
Unfront × UltraPoor	0.524 (0.50)	-0.26 (17.0)	-0.18 (32.7)	-0.20 (28.6)	-0.18 (33.1)	-0.16 (37.2)
WithGrace × UltraPoor	0.352 (0.48)	0.67 (0.2)	0.68 (0.1)	0.70 (0.1)	0.72 (0.1)	0.70 (0.1)
InKind × UltraPoor	0.181 (0.39)	-0.23 (21.0)	-0.21 (27.2)	-0.22 (26.2)	-0.21 (27.2)	-0.22 (24.5)
rd 3	0.348 (0.48)	-0.03 (59.3)	-0.00 (93.5)	-0.00 (95.7)	0.00 (100.0)	-0.00 (99.1)
UltraPoor × rd 3	0.217	-0.05	-0.04	-0.03	-0.03	-0.02
Upfront × rd 3	(0.41) 0.269	(62.8) -0.03	(73.1) -0.03	(77.3) -0.03	(79.6) -0.03	(83.6) -0.02
WithGrace × rd 3	(0.44) 0.176	(84.8)	(82.8)	(82.0)	(83.5)	(87.9) 0.26
InKind × rd 3	(0.38) 0.091	(9.2) -0.04	(7.7) -0.07	(8.1) -0.06	(8.3) -0.07	(8.9) -0.06
	(0.29)	(75.9)	(62.4)	(64.4)	(62.0)	(65.9)
Upfront × UltraPoor × rd 3	0.179 (0.38)	0.70 (0.6)	0.65 (1.1)	0.65 (1.1)	0.65 (1.0)	0.67 (1.0)
WithGrace \times UltraPoor \times rd 3	$0.121 \\ (0.33)$	$^{-1.04}_{(0.4)}$	-0.97 (0.5)	-0.96 (0.5)	-0.98 (0.4)	-0.99 (0.4)
InKind × IlltraPoor × rd 3	0.061 (0.24)	0.84 (1.1)	0.78 (1.6)	0.78 (1.6)	0.77 (1.7)	0.77 (1.4)
AdiCattle $0 \times rd 3$	0.054 (0.23)					-0.13 (26.1)
AdiCattle0 \times Unfront \times rd 3	0.041 (0.20)					-0.28 (46.8)
AdiCattle0 × WithGrace × rd 3	0.026					-0.12 (73.8)
AdiCattle0 × InKind × rd 3	(0.16)					0.27
rd 4	(0.12) 0.326	0.15	0.18	0.18	0.18	(30.7)
UltraPoor × rd 4	(0.47)	(0.9)	(0.4)	(0.3)	(0.3)	(0.3) 0.10
	(0.41)	(46.7)	(51.9) 0.04	(46.5) 0.04	(46.0)	(41.4)
Upfront × rd 4	0.260 (0.44)	0.05 (74.1)	(78.9)	(79.3)	0.05 (76.7)	(77.7)
WithGrace × rd 4	0.166 (0.37)	0.36 (4.8)	0.35 (5.4)	0.35 (5.7)	0.35 (5.7)	0.35 (4.8)
InKind × rd 4	$0.085 \\ (0.28)$	-0.07 (68.1)	-0.05 (75.0)	-0.05 (77.7)	-0.05 (76.4)	-0.05 (78.3)
Unfront \times UltraPoor \times rd 4	0.176 (0.38)	0.77 (2.4)	0.74 (3.0)	0.73 (3.3)	0.74 (2.9)	0.71 (3.9)
WithGrace \times UltraPoor \times rd 4	0.116 (0.32)	-0.93 (2.1)	-0.89 (2.4)	-0.87 (2.5)	-0.89 (2.1)	-0.84 (3.0)
InKind × UltraPoor × rd 4	0.060 (0.24)	0.61 (7.7)	0.52 (14.4)	0.51 (14.4)	0.50 (15.3)	0.46 (18.4)
AdiCattle0 × rd 4	0.050	(1.1)	(14.4)	(14.4)	(13.3)	0.07
AdiCattle0 × Unfront × rd 4	(0.22) 0.039					(68.6) -0.08
AdiCattle0 × WithGrace × rd 4	(0.19)					(85.1) 0.07
AdiCattle0 × InKind × rd 4	(0.15)					(91.2) -0.22
	(0.12) 0.491				0.04	(69.7)
FloodInRd1	(0.50)				0.04 (62.4)	0.03 (67.7)
Head literate0	0.114 (0.32)				0.01 (89.0)	0.02 (79.1)
NumCattle0	$0.266 \\ (0.62)$		0.31 (0.3)	(0.33)	0.32 (0.4)	0.31 (0.3)
HHsize0	4.219 (1.43)				0.05 (2.2)	0.05 (2.4)
mean of dependent variable $T = 2$,	2 85	2 85	2 85	2 85	2 85
T = 2 $T = 3$ $T = 4$		168 395	168 395	168 395	168 395	168 395
$ar{R}^2 N$	1998	0.054	0.101	0.105	0.11	0.113
1 V	1778	1606	259 1606	1606	1606	1606

Table 120: ANCOVA estimation of livestock holding, cattle rearing experiences

		mean/std		(1)		
	Adi	Own	None	Adi	Own	None
(Intercept)				$ \begin{array}{c} 1.65 \\ (0.0) \end{array} $	$ \begin{array}{c} 1.54 \\ (0.0) \end{array} $	1.42 (0.0)
Large	0.333 (0.47)	0.342 (0.48)	0.268 (0.44)	-0.05 (84.7)	0.93 (1.6)	0.26 (1.5)
LargeGrace	0.127 (0.33)	0.268 (0.44)	0.254 (0.44)	0.22 (47.7)	0.38 (3.2)	-0.02 (84.3)
Cattle	0.321 (0.47)	0.200 (0.40)	0.278 (0.45)	-0.12 (60.6)	0.18 (24.0)	-0.01 (90.1)
FloodInRd1	0.533 (0.50)	0.447 (0.50)	0.393 (0.49)			
Head literate()	0.133 (0.34)	0.166 (0.37)	0.129 (0.34)			
NumCattle0		1.420 (0.71)				
net asset value ₁	959.667 (8196.80)	30907.220 (15484.74)	2795.554 (3689.93)			
HHsize0	4.655 (1.17)	4.563 (1.42)	4.346 (1.38)			
mean of dependent variable $T = 2$				2 13	2 11	1 61
T = 3 $T = 4$				24 64	16 104	128 227

Table 120: ANCOVA Estimation of Livestock Holding, Cattle Rearing Barrene Bs4 (Continued)

,,	11111	(2)			(3)	997
(Intercept)	Adi 1.65	Own 1.26	None 1.42	Adi 1.02	Own 1.37	None 1.24
(тистеері)	(0.0)	(0.0)	(0.0)	$(0.6)^{2}$	(1.5)	(0.0)
Large	-0.05 (84.7)	0.91 (1.4)	0.26 (1.5)	-0.12 (65.0)	0.93 (9.5)	0.12 (47.6)
LargeGrace	0.22 (47.7)	0.37 (4.3)	-0.02 (84.3)	0.74 (14.5)	0.19 (48.0)	0.02 (91.8)
Cattle	-0.12 (60.6)	0.19 (24.1)	-0.01 (90.1)	-0.08 (80.4)	0.14 (55.8)	-0.08 (61.7)
FloodInRd1				-0.32 (13.8)	0.06 (82.2)	0.20 (4.5)
Head literate()				0.39 (20.9)	-0.18 (52.1)	-0.01 (92.2)
NumCattle0		0.21 (16.3)			-0.74 (7.6)	
net asset value ₁				0.00 (2.4)	0.00 (1.0)	-0.00 (93.8)
HHsize0				0.16 (4.1)	0.01 (96.3)	0.04 (26.1)
mean of dependent variable $T = 2$	2 13	2 11	1 61	2 8	2 6	1 31
T = 3 T = 4	24 64	16 104	128 227	12 35	12 79	83 134
$ar{R}^2 N$	0.006 253	0.08 355	0.024 998	0.074 137	0.086 267	0.024 599

Source: Estimated with GUK administrative and survey data.

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Narrow net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline. Adi and None subgroups do not own cattle at the baseline. We used net asset values at the baseline NetAssets0 in place of NumCows0 in ANCOVA estimation.

Table 121: ANCOVA estimation of livestock holding by attributes, cattle rearing experiences

		mean/std		(1)		
	Adi	Own	None	Adi	Own	None
(Intercept)				1.65 (0.0)	1.54 (0.0)	1.42 (0.0)
Unfront	0.782 (0.41)	0.810 (0.39)	0.800 (0.40)	-0.05 (84.7)	0.93 (1.6)	0.26 (1.5)
WithGrace	0.448 (0.50)	0.468 (0.50)	0.532 (0.50)	0.27 (34.0)	-0.55 (16.2)	-0.28 (1.3)
InKind	0.321 (0.47)	0.200 (0.40)	0.278 (0.45)	-0.34 (21.0)	-0.20 (25.7)	0.01 (91.2)
FloodInRd1	0.533 (0.50)	0.447 (0.50)	0.393 (0.49)			
Head literate()	0.133 (0.34)	0.166 (0.37)	0.129 (0.34)			
NumCattle0		1.420 (0.71)				
net asset value ₁	959.667 (8196.80)	30907.220 (15484.74)	2795.554 (3689.93)			
HHsize0	4.655 (1.17)	4.563 (1.42)	4.346 (1.38)			
mean of dependent variable $T = 2$				2 13	2 11	1 61
T = 3 T = 4				24 64	16 104	128 227
$ar{R}^2 N$	165	295	791	0.006 253	0.071 355	0.024 998

TABLE 121: ANCOVA ESTIMATION OF LIVESTOCK HOLDING BY ATTRIBUTES, CATTLE REARING EXPERIENCES (CONTINUED)

		(2)			(3)	
(Intercept)	Adi 1.65 (0.0)	Own 1.26 (0.0)	None 1.42 (0.0)	Adi 1.02 (0.6)	Own 1.37 (1.5)	None 1.24 (0.0)
Unfront	-0.05 (84.7)	0.91 (1.4)	0.26 (1.5)	-0.12 (65.0)	0.93 (9.5)	0.12 (47.6)
WithGrace	0.27 (34.0)	-0.54 (15.3)	-0.28 (1.3)	0.86 (5.8)	-0.74 (21.8)	-0.10 (44.0)
InKind	-0.34 (21.0)	-0.18 (33.0)	0.01 (91.2)	-0.82 (8.5)	-0.05 (84.0)	-0.09 (39.5)
FloodInRd1				-0.32 (13.8)	0.06 (82.2)	0.20 (4.5)
Head literate()				0.39 (20.9)	-0.18 (52.1)	-0.01 (92.2)
NumCattle0		0.21 (16.3)			-0.74 (7.6)	
net asset value ₁				0.00 (2.4)	0.00 (1.0)	-0.00 (93.8)
HHsize0				0.16 (4.1)	0.01 (96.3)	0.04 (26.1)
mean of dependent variable $T = 2$	2 13	2 11	1 61	$\frac{2}{8}$	2 6	1 31
$\begin{array}{c} T = 3 \\ T = 4 \end{array}$	24 64	16 104	128 227	12 35	12 79	83 134
$ar{R}^2 N$	0.006 253	0.08 355	0.024 998	0.074 137	0.086 267	0.024 599

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Narrow net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline. Adi and None subgroups do not own cattle at the baseline. We used net asset values at the baseline NetAssets0 in place of NumCows0 in ANCOVA estimation.

Table 122: ANCOVA estimation of livestock holding by period, cattle rearing experiences

		mean/std		(1)			
	Adi	Own	None	Adi	Own	None	
(Intercept)	7.00	• • • • • • • • • • • • • • • • • • • •	,,,,,,,	1.60 (0.0)	1.50 (0.0)	1.41 (0.0)	
Large	0.333 (0.47)	0.342 (0.48)	0.268 (0.44)	-0.02 (91.5)	0.91 (1.1)	0.25 (3.1)	
LargeGrace	0.127 (0.33)	$0.268 \\ (0.44)$	$0.254 \\ (0.44)$	0.22 (45.2)	0.38 (3.4)	-0.13 (28.3)	
Cattle	0.321 (0.47)	0.200 (0.40)	0.278 (0.45)	-0.12 (56.3)	0.13 (40.1)	-0.08 (38.6)	
rd 3	0.352 (0.48)	$0.346 \\ (0.48)$	0.349 (0.48)	-0.09 (37.2)	0.04 (73.8)	0.01 (90.1)	
Large × rd 3	0.115 (0.32)	0.115 (0.32)	0.091 (0.29)	-0.23 (56.4)	0.10 (75.9)	-0.01 (92.5)	
LargeGrace × rd 3	$0.048 \\ (0.22)$	$0.092 \\ (0.29)$	$0.088 \\ (0.28)$	-0.15 (62.1)	0.07 (83.8)	0.35 (5.9)	
Cattle \times rd 3	0.109 (0.31)	0.071 (0.26)	0.095 (0.29)	0.04 (91.4)	0.29 (30.4)	0.18 (17.1)	
rd 4	0.315 (0.47)	0.319 (0.47)	0.327 (0.47)	0.27 (10.6)	0.14 (30.6)	0.17 (0.6)	
Large × rd 4	0.115 (0.32)	0.112 (0.32)	0.091 (0.29)	-0.00 (99.8)	0.16 (69.9)	0.05 (75.3)	
LargeGrace × rd 4	0.036 (0.19)	0.088 (0.28)	0.083 (0.28)	0.30 (58.7)	-0.05 (90.0)	0.61 (0.2)	
Cattle \times rd 4	0.103 (0.30)	$0.061 \\ (0.24)$	0.091 (0.29)	0.10 (79.1)	0.38 (20.0)	0.42 (0.2)	
FloodInRd1	0.533 (0.50)	0.447 (0.50)	0.393 (0.49)				
Head literate0	0.133 (0.34)	0.166 (0.37)	0.129 (0.34)				
NumCattle0		1.420 (0.71)					
net asset value ₁	959.667 (8196.80)	30907.220 (15484.74)	2795.554 (3689.93)				
HHsize0	4.655 (1.17)	4.563 (1.42)	4.346 (1.38)				
mean of dependent variable $T = 2$				2 13	2 11	1 61	
T = 3 T = 4				24 64	16 104	128 227	
$ar{R}^2 N$	165	295	791	0.007 253	0.054 355	0.05 998	

Table 122: ANCOVA estimation of Livestock holding by period, cattle rearing experiences (continued)

		(2)			(3)	
(Intercept)	Adi 1.60 (0.0)	Own 1.22 (0.0)	None 1.41 (0.0)	Adi 0.98 (1.9)	Own 1.35 (2.2)	None 1.29 (0.0)
Large	-0.02 (91.5)	0.88 (1.0)	0.25 (3.1)	-0.03 (91.7)	0.89 (9.1)	0.07 (68.4)
LargeGrace	0.22 (45.2)	0.36 (5.4)	-0.13 (28.3)	0.59 (16.6)	0.20 (50.0)	-0.09 (56.8)
Cattle	-0.12 (56.3)	0.14 (40.9)	-0.08 (38.6)	-0.05 (87.2)	0.10 (68.2)	-0.17 (25.6)
rd 3	-0.09 (37.2)	0.04 (72.3)	0.01 (90.1)	-0.16 (32.4)	-0.00 (96.9)	-0.06 (33.0)
Large × rd 3	-0.23 (56.4)	0.11 (74.1)	-0.01 (92.5)	-0.54 (29.2)	0.20 (57.5)	0.20 (28.8)
LargeGrace × rd 3	-0.15 (62.1)	0.11 (76.1)	0.35 (5.9)	0.12 (75.0)	0.06 (88.2)	0.33 (7.1)
Cattle × rd 3	0.04 (91.4)	0.30 (28.5)	0.18 (17.1)	-0.16 (68.7)	0.24 (37.3)	0.30 (7.4)
rd 4	0.27 (10.6)	$\begin{pmatrix} 0.14 \\ (29.7) \end{pmatrix}$	0.17 (0.6)	0.38 (23.0)	0.09 (48.6)	0.10 (11.3)
Large × rd 4	-0.00 (99.8)	0.16 (69.3)	0.05 (75.3)	-0.21 (69.5)	0.15 (71.1)	0.16 (37.2)
LargeGrace × rd 4	0.30 (58.7)	-0.05 (90.0)	0.61 (0.2)	1.37 (21.6)	-0.18 (61.3)	0.58 (0.3)
Cattle × rd 4	0.10 (79.1)	0.41 (17.0)	0.42 (0.2)	-0.06 (87.6)	0.20 (48.5)	0.47 (0.7)
FloodInRd1				-0.35 (15.2)	0.06 (83.1)	0.20 (4.5)
Head literate()				0.39 (22.1)	-0.18 (53.7)	0.00 (97.7)
NumCattle0		0.21 (15.4)			-0.74 (8.2)	
net asset value ₁				0.00 (1.8)	0.00 (1.2)	-0.00 (89.4)
HHsize0				0.16 (5.3)	0.01 (94.8)	0.04 (23.8)
mean of dependent variable $T = 2$	2 13	2 11	1 61	$\frac{2}{8}$	2 6	1 31
T = 3 T = 4	24 64	16 104	128 227	12 35	12 79	83 134
$ar{R}^2 N$	0.007 253	0.064 355	0.05 998	0.094 137	0.06 267	0.035 599

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Narrow net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline. Adi and None subgroups do not own cattle at the baseline. We used net asset values at the baseline NetAssets0 in place of NumCows0 in ANCOVA estimation.

Table 123: ANCOVA estimation of livestock holding by attributes and period, cattle rearing experiences

		mean/std		(1)			
	Adi	Own	None	Adi	Own	None	
(Intercept)				1.60 (0.0)	1.50 (0.0)	1.41 (0.0)	
Unfront	0.782 (0.41)	0.810 (0.39)	0.800 (0.40)	-0.02 (91.5)	0.91 (1.1)	0.25 (3.1)	
WithGrace	0.448 (0.50)	0.468 (0.50)	0.532 (0.50)	0.24 (35.7)	-0.53 (14.1)	-0.38 (0.3)	
InKind	0.321 (0.47)	0.200 (0.40)	0.278 (0.45)	-0.34 (20.2)	-0.25 (15.2)	0.05 (66.3)	
rd 3	0.352 (0.48)	0.346 (0.48)	0.349 (0.48)	-0.09 (37.2)	0.04 (73.8)	0.01 (90.1)	
Unfront \times rd 3	0.273 (0.45)	0.278 (0.45)	0.274 (0.45)	-0.23 (56.4)	0.10 (75.9)	-0.01 (92.5)	
WithGrace \times rd 3	0.158 (0.37)	0.163 (0.37)	0.183 (0.39)	0.07 (78.5)	-0.03 (93.8)	0.36 (5.5)	
InKind \times rd 3	0.109 (0.31)	0.071 (0.26)	0.095 (0.29)	0.19 (31.1)	0.21 (50.0)	-0.17 (32.0)	
rd 4	0.315 (0.47)	0.319 (0.47)	0.327 (0.47)	0.27 (10.6)	0.14 (30.6)	0.17 (0.6)	
Unfront \times rd 4	0.255 (0.44)	0.261 (0.44)	0.265 (0.44)	-0.00 (99.8)	0.16 (69.9)	0.05 (75.3)	
WithGrace × rd 4	0.139 (0.35)	0.149 (0.36)	0.174 (0.38)	0.30 (57.8)	-0.21 (64.2)	0.56 (0.6)	
InKind × rd 4	0.103 (0.30)	0.061 (0.24)	0.091 (0.29)	-0.20 (70.0)	0.42 (21.0)	-0.19 (31.6)	
FloodInRd1	0.533 (0.50)	0.447 (0.50)	0.393 (0.49)				
Head literate0	0.133 (0.34)	0.166 (0.37)	0.129 (0.34)				
NumCattle0		1.420 (0.71)					
net asset value ₁	959.667 (8196.80)	30907.220 (15484.74)	2795.554 (3689.93)				
HHsize0	4.655 (1.17)	4.563 (1.42)	4.346 (1.38)				
mean of dependent variable $T = 2$				2 13	2 11	1 61	
T = 3 T = 4				24 64	16 104	128 227	
$ar{R}^2 N$	165	295	791	0.007 253	0.054 355	0.05 998	

TABLE 123: ANCOVA ESTIMATION OF LIVESTOCK HOLDING BY ATTRIBUTES AND PERIOD, CATTLE REARING EXPERIENCES (CONTINUED)

	(2)			(3)			
(Intercept)	Adi 1.60 (0.0)	Own 1.22 (0.0)	None 1.41 (0.0)	Adi 0.98 (1.9)	Own 1.35 (2.2)	None 1.29 (0.0)	
Upfront	-0.02 (91.5)	0.88 (1.0)	0.25 (3.1)	-0.03 (91.7)	0.89 (9.1)	0.07 (68.4)	
WithGrace	0.24 (35.7)	-0.52 (13.4)	-0.38 (0.3)	0.62 (9.5)	-0.70 (22.8)	-0.16 (23.6)	
InKind	-0.34 (20.2)	-0.22 (21.2)	0.05 (66.3)	-0.64 (11.1)	-0.09 (73.1)	-0.08 (44.4)	
rd 3	-0.09 (37.2)	0.04 (72.3)	0.01 (90.1)	-0.16 (32.4)	-0.00 (96.9)	-0.06 (33.0)	
Unfront \times rd 3	-0.23 (56.4)	0.11 (74.1)	-0.01 (92.5)	-0.54 (29.2)	0.20 (57.5)	0.20 (28.8)	
WithGrace \times rd 3	0.07 (78.5)	0.00 (100.0)	0.36 (5.5)	0.66 (15.0)	-0.15 (69.3)	0.14 (43.6)	
InKind × rd 3	0.19 (31.1)	0.19 (56.4)	-0.17 (32.0)	-0.28 (44.1)	0.19 (55.1)	-0.04 (82.1)	
rd 4	0.27 (10.6)	0.14 (29.7)	0.17 (0.6)	0.38 (23.0)	0.09 (48.6)	0.10 (11.3)	
Unfront × rd 4	-0.00 (99.8)	0.16 (69.3)	0.05 (75.3)	-0.21 (69.5)	0.15 (71.1)	0.16 (37.2)	
WithGrace \times rd 4	0.30 (57.8)	-0.21 (63.8)	0.56 (0.6)	1.57 (16.1)	-0.33 (44.0)	0.42 (2.4)	
InKind × rd 4	-0.20 (70.0)	0.46 (19.3)	-0.19 (31.6)	-1.43 (19.2)	0.38 (22.9)	-0.11 (53.7)	
FloodInRd1				-0.35 (15.2)	0.06 (83.1)	0.20 (4.5)	
Head literate0				0.39 (22.1)	-0.18 (53.7)	0.00 (97.7)	
NumCattle0		0.21 (15.4)			-0.74 (8.2)		
net asset value ₁				0.00 (1.8)	0.00 (1.2)	-0.00 (89.4)	
HHsize0				0.16 (5.3)	0.01 (94.8)	0.04 (23.8)	
mean of dependent variable $T = 2$	2 13	2 11	1 61	$\frac{2}{8}$	2 6	1 31	
T = 3 T = 4	24 64	16 104	128 227	12 35	12 79	83 134	
$ar{R}^2 N$	0.007 253	0.064 355	0.05 998	0.094 137	0.06 267	0.035 599	

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Narrow net assets uses only assets observed for all 4 rounds in household assets. Household assets do not include livestock. OwnCattle0 is an indicator if a household owned cattle at the baseline. AdiCattle0 is an indicator if a household engaged in the cattle lease-in contract at the baseline. Adi and None subgroups do not own cattle at the baseline. We used net asset values at the baseline NetAssets0 in place of NumCows0 in ANCOVA estimation.

2. P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

IV Estimation using complete panel HHs in household assets

This section uses subsample limited to households which gives complete panel of household assets.

IV.1 Assets

IV.1.1 Productive assets

Productive assets are sorveyed consistently across rounds, except hand pumps that were asked only in round 1. Major productive assets (above 300 entries) are bees-box, cage incubator, dheki, fishing net, ginning machine, hand pump, sickle/dao/axe/spade. Bee boxes have increased dramat-

ically from round 2. Sickles/dao/axes/spades and fishing nets have decreased dramatically since round 2. These indicate that household production may have shifted to more domestic-oriented tasks. There is no indication that productive asset holding related to cattle rearing has increased.

```
Number of obs by Arm and attrition
          AttritIn
Arm
            2 3 4 9 Sum
 traditional 6 4 20 144 174
            5 2
 large
                   1 191 199
 large grace 22 3
                  3 170 198
 cattle 5 5 13 176 199
           38 14 37 681 770
 Sum
Number of obs by membership status and attrition
                  AttritIn
BStatus
                           4
                             9 Sum
                          8 575 597
 borrower
                    8
                       6
                    0 0 0 0
 pure saver
 individual rejection 9 4 1 75 89
 group rejection
                   9 4 0 55 68
 rejection by flood 12 0 28 0 40
                  38 14 37 705 794
 Sum
```

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[1] excl
[[1]]
PAssetAmount ~ dummyLarge + dummyLargeGrace + dummyCattle
PAssetAmount ~ dummyLarge + dummyLargeGrace + dummyCattle + PAssetAmount0
[[3]]
PAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + PAssetAmount0
[[4]]
PAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyHadCows + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
    dummyHadCows.Large + dummyHadCows.LargeGrace + dummyHadCows.Cattle
[[5]]
PAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + PAssetAmount0 + NumCows0
[[6]]
PAssetAmount ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyHadCows + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
   NumCows0 + dummyHadCows.Large + dummyHadCows.LargeGrace +
    dummyHadCows.Cattle
[1] exclP
[[1]]
PAssetAmount ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
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PAssetAmount ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + PAssetAmount0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[3]]
PAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[4]]
PAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
ΓΓ5]]
PAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[6]]
PAssetAmount ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] excla
[[1]]
PAssetAmount ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
PAssetAmount ~ dummyLargeSize + dummyWithGrace + dummyInKind +
   PAssetAmount0
[[3]]
PAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + PAssetAmount0
[[4]]
PAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
    dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
PAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
   dummyInKind + HHsize0 + HeadLiteracy0 + PAssetAmount0 + NumCows0
PAssetAmount ~ FloodInRd1 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
    NumCows0 + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
    dummyHadCows.InKind
[1] exclT
[[1]]
PAssetAmount ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
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dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +

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dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4
[[2]]
PAssetAmount ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + PAssetAmount0
[[3]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0
[[4]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
    dummyHadCows.Cattle.Time4
[[5]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
   NumCows0
[[6]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Tilme3 +
    dummyHadCows.Cattle.Time4
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[[1]]
PAssetAmount ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
PAssetAmount ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + PAssetAmount0
[[3]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
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dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +

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dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0
[[4]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
    NumCows0
[[6]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[1] exclTPa
[[1]]
PAssetAmount ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
ΓΓ2]]
PAssetAmount ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    PAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
    dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
    dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
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dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4

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[[4]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
    dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
    dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSi|ze.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
    dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
    dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + PAssetAmount0 +
   NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[6]]
PAssetAmount ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor +
    dummyLargeSize + dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 +
    dummyLargeSize.Time3 + dummyWithGrace.Time3 + dummyInKind.Time3 +
    dummyUltraPoor.Time4 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    PAssetAmount0 + NumCows0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
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Error in FUN(X[[i]], ...): オブジェクト 'PAssetAmount' がありません
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Error in FUN(X[[i]], ...): オブジェクト 'PAssetAmount' がありません

FIGURE 26: PRODUCTIVE ASSET HOLDING

Source: Survey data.

Note:

Productive assets are bees-box, brooder, cage incubator, country boat, deep tube well, dheki, done/swing basket, engine boat, fishing net, ginning machine, gola (grain storage), hand pump, husking machine, jata, ladder(moi), other, specify, plough and yoke, power pump, power tiller, rickshaw, rower pump, saw, sewing machine, shallow tube well, sickle/dao/axe/spade, spray, thresher, tractor, treddle pump, weeder.

TABLE 124: ANCOVA ESTIMATION OF PRODUCTIVE ASSETS

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		571.2 (0.0)	200.5 (16.1)	313.7 (30.8)	358.2 (33.6)	331.2 (33.9)
Large	0.021 (0.45)	1240.1 (3.6)	1166.3 (4.2)	1281.1 (2.8)	1526.2 (2.5)	1354.3 (2.7)
LargeGrace	0.002 (0.43)	796.4 (9.6)	655.8 (16.2)	609.1 (17.9)	667.1 (17.8)	644.3 (15.7)
Cattle	0.017 (0.44)	149.9 (39.8)	188.5 (32.3)	253.7 (23.5)	291.3 (21.4)	350.6 (13.7)
HadCattle	0.218 (0.41)				88.4 (83.9)	
FloodInRd1	0.487 (0.50)			-662.6 (8.8)	-867.9 (6.3)	-709.0 (9.6)
Head literate0	0.121 (0.33)			-595.0 (2.0)	-692.3 (4.2)	-622.5 (2.7)
productive asset value ₁	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.5)	0.4 (0.2)	0.4 (0.2)
HHsize0	4.306 (1.43)			58.9 (52.5)	48.3 (68.1)	35.3 (74.2)
HadCattle × Large	0.016 (0.22)				139.7 (90.6)	
HadCattle × LargeGrace	0.004 (0.20)				1548.0 (21.3)	
HadCattle × Cattle	-0.006 (0.19)				201.2 (59.7)	
NumCattle0	0.300 (0.66)					93.8 (79.0)
mean of dependent variable $T = 2$		1125 20	1125 20	1125 20	1125 17	1125 14
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604
$ar{R}^2 N$	1718	0.005 2118	0.026 2097	0.028 2097	0.031 1718	0.03 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Only households that are observed for all 4 rounds are used. Households are continuing members and replacing members of early rejecters and received loans prior to 2015 January. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

Table 125: ANCOVA estimation of productive assets by attributes

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		571.2 (0.0)	200.5 (16.1)	313.7 (30.8)	358.2 (33.6)	331.2 (33.9)
Unfront	0.040 (0.41)	1240.1 (3.6)	1166.3 (4.2)	1281.1 (2.8)	1526.2 (2.5)	1354.3 (2.7)
WithGrace	0.019 (0.50)	-443.7 (55.6)	-510.4 (48.6)	-672.0 (35.4)	-859.2 (30.3)	-710.0 (35.1)
InKind	0.017 (0.44)	-646.5 (19.7)	-467.3 (34.2)	-355.5 (44.8)	-375.8 (45.0)	-293.7 (53.4)
HadCattle	0.218 (0.41)				88.4 (83.9)	
FloodInRd1	0.487 (0.50)			-662.6 (8.8)	-867.9 (6.3)	-709.0 (9.6)
Head literate0	0.121 (0.33)			-595.0 (2.0)	-692.3 (4.2)	-622.5 (2.7)
productive asset value ₁	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.5)	0.4 (0.2)	0.4 (0.2)
HHsize0	4.306 (1.43)			58.9 (52.5)	48.3 (68.1)	35.3 (74.2)
HadCattle × Unfront	0.014 (0.18)				139.7 (90.6)	
HadCattle × WithGrace	-0.002 (0.23)				1408.3 (40.1)	
HadCattle × InKind	-0.006 (0.19)				-1346.8 (28.3)	
NumCattle0	0.300 (0.66)					93.8 (79.0)
mean of dependent variable $T = 2$		1125 20	1125 20	1125 20	1125 17	1125 14
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604
$ar{R}^2$	1718	0.005 2118	0.026 2097	0.028 2097	0.031 1718	0.03 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Only households that are observed for all 4 rounds are used. Households are continuing members and replacing members of early rejecters and received loans prior to 2015 January. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

Table 126: ANCOVA estimation of broad productive assets by period

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		841.5 (0.0)	470.6 (1.7)	591.4 (10.7)	657.3 (12.0)	606.0 (13.4)
Large	0.021 (0.45)	1460.4 (3.5)	1388.4 (4.0)	1505.5 (2.8)	1737.5 (2.7)	1545.9 (2.8)
LargeGrace	0.002 (0.43)	928.2 (10.5)	791.6 (15.9)	744.0 (17.4)	766.8 (18.4)	755.4 (16.2)
Cattle	0.017 (0.44)	117.7 (51.4)	165.6 (39.0)	232.5 (28.4)	270.7 (28.1)	307.4 (19.9)
rd 3	0.342 (0.47)	-293.2 (19.3)	-300.5 (18.8)	-303.4 (18.4)	-334.6 (19.3)	-275.7 (22.4)
Large × rd 3	0.094 (0.29)	-814.3 (28.0)	-822.5 (27.8)	-820.2 (27.9)	-826.4 (35.6)	-701.6 (35.5)
LargeGrace × rd 3	0.084 (0.28)	-157.1 (73.3)	-157.3 (73.8)	-144.5 (75.8)	47.8 (92.2)	-26.8 (95.4)
Cattle × rd 3	0.089 (0.28)	228.4 (33.1)	149.8 (55.0)	158.0 (53.3)	182.6 (44.4)	315.4 (21.3)
rd 4	0.316 (0.47)	-746.5 (0.8)	-745.6 (0.8)	-747.7 (0.8)	-855.6 (0.5)	-758.7 (0.7)
Large × rd 4	0.093 (0.29)	-1534.3 (7.1)	-1544.9 (7.0)	-1566.5 (6.8)	-1540.0 (11.0)	-1441.9 (9.0)
LargeGrace \times rd 4	0.079 (0.27)	-1223.1 (9.0)	-1260.4 (8.6)	-1271.0 (8.6)	-1178.3 (10.4)	-1189.4 (10.5)
Cattle \times rd 4	0.082 (0.27)	115.3 (65.0)	96.3 (71.2)	67.3 (80.4)	75.0 (76.9)	207.1 (44.0)
HadCattle	0.218 (0.41)				173.8 (74.1)	
HadCattle × rd 3	0.075 (0.26)				-164.7 (71.5)	
HadCattle \times rd 4	0.068 (0.25)				-829.9 (31.7)	
FloodInRd1	0.487 (0.50)			-666.2 (8.8)	-868.0 (6.4)	-707.9 (9.7)
Head literate0	0.121 (0.33)			-596.9 (2.0)	-685.4 (4.5)	-621.8 (2.7)
productive asset value ₁	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.6)	0.4 (0.2)	0.4 (0.2)
HHsize0	4.306 (1.43)			57.8 (53.4)	48.3 (68.3)	35.9 (73.9)
HadCattle × Large	0.016 (0.22)				40.2 (97.6)	
HadCattle \times Large \times rd 3	0.005 (0.13)				841.8 (46.3)	
HadCattle × Large × rd 4	0.006 (0.13)				153.9 (92.8)	
$HadCattle \times LargeGrace$	0.004 (0.20)				2070.8 (19.4)	
HadCattle × LargeGrace × rd 3	0.001 (0.12)				-2020.7 (14.6)	
HadCattle \times LargeGrace \times rd 4	0.002 (0.12)				-3922.5 (16.7)	
HadCattle × Cattle	-0.006 (0.19)				286.1 (47.1)	
HadCattle \times Cattle \times rd 3	-0.001 (0.11)				-583.7 (16.7)	
HadCattle \times Cattle \times rd 4	-0.003 (0.10)				-621.5 (15.3)	
NumCattle0	0.300 (0.66)					93.3 (79.2)
mean of dependent variable $T = 2$		1125 20	1125 20	1125 20	1125 17	1125 14
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604
$ar{R}^2 N$	1718	0.007 2118	0.027 2097	0.029 2097	0.029 1718	0.031 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Only households that are observed for all 4 rounds are used. Households are continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 127: ANCOVA ESTIMATION OF BROAD PRODUCTIVE ASSETS BY ATTRIBUTES AND PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		841.5 (0.0)	470.6 (1.7)	591.4 (10.7)	657.3 (12.0)	606.0 (13.4)
Unfront	0.040 (0.41)	1460.4 (3.5)	1388.4 (4.0)	1505.5 (2.8)	1737.5 (2.7)	1545.9 (2.8)
WithGrace	0.019 (0.50)	-532.2 (54.9)	-596.8 (49.2)	-761.5 (37.6)	-970.7 (31.4)	-790.5 (37.0)
InKind	0.017 (0.44)	-810.6 (16.7)	-626.0 (27.6)	-511.5 (35.2)	-496.1 (38.4)	-448.0 (41.0)
rd 3	0.342 (0.47)	-293.2 (19.3)	-300.5 (18.8)	-303.4 (18.4)	-334.6 (19.3)	-275.7 (22.4)
Unfront \times rd 3	0.267 (0.44)	-814.3 (28.0)	-822.5 (27.8)	-820.2 (27.9)	-826.4 (35.6)	-701.6 (35.5)
WithGrace \times rd 3	0.173 (0.38)	657.2 (43.8)	665.2 (43.6)	675.7 (43.1)	874.2 (36.9)	674.9 (42.8)
InKind \times rd 3	0.089 (0.28)	385.5 (39.3)	307.1 (50.9)	302.6 (51.5)	134.8 (76.1)	342.1 (44.8)
rd 4	0.316 (0.47)	-746.5 (0.8)	-745.6 (0.8)	-747.7 (0.8)	-855.6 (0.5)	-758.7 (0.7)
Unfront × rd 4	0.254 (0.44)	-1534.3 (7.1)	-1544.9 (7.0)	-1566.5 (6.8)	-1540.0 (11.0)	-1441.9 (9.0)
WithGrace × rd 4	0.161 (0.37)	311.2 (77.2)	284.4 (79.4)	295.5 (78.7)	361.7 (75.4)	252.6 (81.6)
InKind × rd 4	0.082 (0.27)	1338.4 (5.9)	1356.8 (6.0)	1338.3 (6.3)	1253.3 (6.3)	1396.5 (5.4)
HadCattle	0.218 (0.41)	,	,	,	173.8 (74.1)	,
HadCattle × rd 3	0.075 (0.26)				-164.7 (71.5)	
HadCattle \times rd 4	0.068 (0.25)				-829.9 (31.7)	
FloodInRd1	0.487 (0.50)			-666.2 (8.8)	-868.0 (6.4)	-707.9 (9.7)
Head literate0	0.121 (0.33)			-596.9 (2.0)	-685.4 (4.5)	-621.8 (2.7)
productive asset value ₁	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.6)	0.4 (0.2)	0.4 (0.2)
HHsize0	4.306 (1.43)			57.8 (53.4)	48.3 (68.3)	35.9 (73.9)
HadCattle × Unfront	0.014 (0.18)				40.2 (97.6)	
$HadCattle \times Upfront \times rd~3$	0.004 (0.11)				841.8 (46.3)	
$HadCattle \times Unfront \times rd 4$	0.005 (0.10)				153.9 (92.8)	
HadCattle × WithGrace	-0.002 (0.23)				2030.5 (32.3)	
$HadCattle \times WithGrace \times rd 3$	-0.000 (0.14)				-2862.5 (10.4)	
HadCattle \times WithGrace \times rd 4	-0.001 (0.13)				-4076.3 (21.6)	
HadCattle × InKind	-0.006 (0.19)				-1784.7 (26.6)	
HadCattle \times InKind \times rd 3	-0.001 (0.11)				1437.0 (30.6)	
HadCattle × InKind × rd 4	-0.003 (0.10)				3300.9 (24.3)	
NumCattle0	0.300 (0.66)					93.3 (79.2)
mean of dependent variable $T = 2$. ,	1125 20	1125 20	1125 20	1125 17	1125 14
T = 3 $T = 4$		101 632	101 625	101 625	57 529	56 604
$ar{R}^2 N$	1718	0.007 2118	0.027 2097	0.029 2097	0.029 1718	0.031 1938

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Only households that are observed for all 4 rounds are used. Households are continuing members and replacing members of early rejecters and received loans prior to 2015 Janunary. Productive assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

Table 128: ANCOVA estimation of broad productive assets by attributes, poverty status, and $\frac{1}{2}$

covariates	mean/std	(1)	(2)	(3)	(4)	(5)
(Intercept)		869.2 (0.0)	499.8 (1.7)	643.9 (9.1)	693.1 (11.9)	657.0 (11.9)
Unfront	0.040 (0.41)	1428.7 (4.0)	1349.6 (4.6)	1455.0 (3.1)	1699.9 (3.4)	1489.2 (3.0)
WithGrace	0.019 (0.50)	-572.1 (51.9)	-640.3 (46.0)	-820.9 (34.0)	-1073.4 (27.5)	-849.4 (33.6)
InKind	0.017 (0.44)	-760.9 (19.6)	-569.2 (32.6)	-438.7 (43.1)	-396.5 (48.4)	-378.2 (49.0)
UltraPoor	0.625 (0.48)	-148.6 (75.7)	-144.4 (76.6)	-147.0 (76.3)	-194.3 (73.0)	-146.4 (76.7)
Unfront × UltraPoor	0.051 (0.30)	-1260.9 (47.2)	-1332.1 (45.5)	-1682.8 (37.4)	-2034.2 (35.7)	-1655.9 (39.5)
WithGrace \times UltraPoor	0.036 (0.39)	1494.4 (40.5)	1550.3 (39.1)	1723.2 (35.6)	2278.0 (29.5)	1762.8 (35.2)
InKind × UltraPoor	0.019 (0.35)	-714.1 (22.5)	-778.3 (15.9)	-847.1 (12.4)	-1232.3 (4.2)	-837.1 (13.4)
rd 3	0.342 (0.47)	-298.5 (18.3)	-304.6 (17.9)	-308.1 (17.5)	-344.4 (17.5)	-287.0 (20.5)
UltraPoor × rd 3	0.210 (0.41)	-2.17.1 (57.1)	-249.2 (52.1)	-257.3 (50.8)	-343.9 (40.7)	-233.6 (54.3)
Upfront \times rd 3	0.267 (0.44)	-786.6 (30.7)	-796.5 (30.4)	-794.1 (30.6)	-758.6 (40.1)	-657.1 (40.0)
WithGrace × rd 3	0.173 (0.38)	682.0 (41.1)	692.9 (40.8)	705.1 (40.2)	914.3 (33.2)	704.9 (39.9)
InKind \times rd 3	0.089 (0.28)	362.8 (37.7)	286.0 (49.7)	280.6 (50.6)	95.9 (81.0)	312.1 (44.7)
Unfront \times UltraPoor \times rd 3	0.017 (0.18)	-252.8 (85.3)	-265.7 (84.7)	-278.5 (83.9)	-40.3 (97.8)	-209.7 (87.7)
WithGrace \times UltraPoor \times rd 3	0.012 (0.23)	287.4 (84.0)	297.2 (83.6)	310.3 (82.8)	367.9 (80.7)	426.1 (76.2)
InKind × IlltraPoor × rd 3	0.006 (0.20)	320.9 (58.7)	211.7 (72.5)	204.4 (73.8)	59.7 (93.0)	239.8 (69.3)
rd 4	0.316 (0.47)	-729.0 (0.8)	-725.6 (0.9)	-729.8 (0.9)	-837.4 (0.4)	-747.5 (0.7)
UltraPoor \times rd 4	0.202 (0.40)	-358.9 (45.2)	-368.4 (44.3)	-381.1 (42.9)	-595.8 (26.5)	-418.6 (38.2)
Upfront \times rd 4	0.254 (0.44)	-1489.3 (8.4)	-1498.5 (8.3)	-1511.3 (8.2)	-1443.4 (13.6)	-1370.0 (11.4)
WithGrace × rd 4	0.161 (0.37)	421.2 (68.6)	403.5 (70.1)	415.5 (69.4)	494.0 (65.6)	371.3 (72.4)
InKind × rd 4	0.082 (0.27)	1222.5 (6.1)	1232.9 (6.3)	1213.9 (6.6)	1118.4 (6.7)	1271.8 (5.8)
Unfront \times UltraPoor \times rd 4	0.017 (0.17)	268.9 (87.0)	253.0 (87.8)	243.1 (88.3)	421.7 (81.3)	344.4 (83.3)
WithGrace \times UltraPoor \times rd 4	0.011 (0.23)	-1379.7 (44.3)	-1394.1 (44.0)	-1385.5 (44.3)	-1740.3 (38.4)	-1390.7 (43.7)
$InKind \times UltraPoor \times rd \ 4$	0.006 (0.20)	1581.2 (6.6)	1589.5 (6.6)	1565.8 (7.4)	1855.4 (9.2)	1604.9 (6.3)
HadCattle	0.218 (0.41)	(0.0)	(0.0)	(//	139.7 (79.2)	(0.5)
HadCattle × rd 3	0.075 (0.26)				-131.8 (77.0)	
HadCattle × rd 4	0.068 (0.25)				-804.0 (33.0)	
FloodInRd1	0.487 (0.50)			-728.9 (8.5)	-953.4 (6.4)	-765.9 (9.6)
Head literate0	0.121 (0.33)			-693.8 (2.4)	-812.3 (4.2)	-708.4 (2.9)
productive asset value:	1255.054 (2646.96)		0.4 (0.3)	0.3 (0.5)	0.4 (0.2)	0.4 (0.2)
HHsize0	4.306 (1.43)		(0.0)	66.7 (49.6)	68.7 (59.3)	46.6 (68.3)
HadCattle × Unfront	0.014 (0.18)			(12.0)	89.0 (94.8)	(00.5)
HadCattle × Upfront × rd 3	0.004 (0.11)				701.4 (53.2)	
HadCattle × Unfront × rd 4	0.005 (0.10)				21.4 (99.0)	
HadCattle × WithGrace	-0.002 (0.23)				2221.2 (28.2)	
HadCattle × WithGrace × rd 3	-0.000				-2893.1 (9.9)	
HadCattle × WithGrace × rd 4	(0.14) -0.001 (0.13)				-4285.7 (19.0)	
HadCattle × InKind	(0.13) -0.006 (0.10)				-1874.9	
HadCattle × InKind × rd 3	(0.19) -0.001 (0.11)				(24.0) 1463.0 (31.1)	
HadCattle × InKind × rd 4	(0.11) -0.003 (0.10)				(31.1) 3551.3 (21.3)	
NumCattle0	(0.10) 0.300 (0.66)	,	276		(21.3)	90.8 (79.8)
mean of dependent variable $T = 2$	(0.00)	1125 20	1125 20	1125 20	1125 17	1125 14

IV.1.2 Net assets: Assets+Livestock-GUK Debt-Other Debts

Keep households with baseline household asset information. For productive assets, all households have baseline information but ownership is spattered. Net assets = Assets + net saving - debt to GUK - debts to relatives and money lenders. Assets use only items observed for all 4 rounds for household assets *including* radios and cassette players (which have possibly large errors).

```
Number of obs by Arm and attrition
           AttritIn
Arm
             2 3
                    4
                        9 Sum
 traditional 6 4 20 144 174
 large 5 2 1 191 199
 large grace 22 3 3 170 198
 cattle 5 5 13 176 199
Sum 38 14 37 681 770
Number of obs by membership status and attrition
                   AttritIn
BStatus
                      2 3
                             4 9 Sum
                      8 6 8 575 597
 borrower
                     0 0 0 0
 pure saver
                                    0
                            1 75 89
 individual rejection 9 4
                      9 4
 group rejection
                             0 55 68
 rejection by flood 12 0 28 0 40 Sum 38 14 37 705 794
```

```
Error in eval(ei, envir): オブジェクト 'NeA1R8' がありません
```

NeA1R2

```
NonNA
tee FALSE TRUE Sum
1 548 940 1488
2 137 1261 1398
3 35 1332 1367
4 12 1172 1184
Sum 732 4705 5437
```

```
tee

Arm 2 3 4 Sum

traditional 58 58 58 174

large 131 131 131 393

large grace 118 118 118 354

cattle 118 118 118 354

Sum 425 425 425 1275
```

```
tee
                 2
                      3
                               Sum
Arm
 traditional
                58
                     58
                           58
                               174
                    131
                               393
 large
               131
                          131
 large grace
               118
                    118
                         118
                              354
 cattle
               118
                    118
                          118
                               354
 Sum
               425
                    425
                         425 1275
```

```
[1] excl
[[1]]
NetValue ~ dummyLarge + dummyLargeGrace + dummyCattle
[[2]]
NetValue ~ dummyLarge + dummyLargeGrace + dummyCattle + NetValue0
[[3]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 + dummyHadCows.Large +
    dummyHadCows.LargeGrace + dummyHadCows.Cattle
[[5]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
   HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0
[[6]]
NetValue ~ FloodInRd1 + dummyLarge + dummyLargeGrace + dummyCattle +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
    dummyHadCows.Large + dummyHadCows.LargeGrace + dummyHadCows.Cattle
[1] exclP
[[1]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[2]]
NetValue ~ dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor
[[3]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
[[4]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[[5]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
    dummyInKind + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor
```

```
[[6]]
NetValue ~ FloodInRd1 + dummyUltraPoor + dummyLargeSize + dummyWithGrace +
       dummyInKind + dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 +
       NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
       dummyInKind.UltraPoor + dummyHadCows.LargeSize + dummyHadCows.WithGrace +
       dummyHadCows.InKind
[1] excla
[[1]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind
[[2]]
NetValue ~ dummyLargeSize + dummyWithGrace + dummyInKind + NetValue0
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
       HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue \ \sim \ FloodInRd1 \ + \ dummyLargeSize \ + \ dummyWithGrace \ + \ dummyInKind \ + \ dummyNote \ + \ 
       dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 + dummyHadCows.LargeSize |+
       dummyHadCows.WithGrace + dummyHadCows.InKind
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
       HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0
NetValue ~ FloodInRd1 + dummyLargeSize + dummyWithGrace + dummyInKind +
       dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
       dummyHadCows.LargeSize + dummyHadCows.WithGrace + dummyHadCows.InKind
[1] exclT
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
       dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
       dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
       dummyLarge.Time3 + dummyLargeGrace.Time3 + dummyCattle.Time3 +
       dummyLarge.Time4 + dummyLargeGrace.Time4 + dummyCattle.Time4 +
       NetValue0
NetValue \sim FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
       dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
       dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
       dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
       dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
       NetValue0 + dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
       dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
       dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
       dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
```

[[5]]

```
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
   NetValue0
ГГ6]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyLarge.Time4 + dummyLargeGrace.Time4 +
    dummyCattle.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NumCows0 + NetValue0 + dummyHadCows.Large + dummyHadCows.Time3 +
    dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
    dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
    dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 +
    dummyHadCows.Cattle.Time4
[1] exclTa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + NetValue0
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NetValue0
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
   NetValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
    dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[[5]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + HHsize0 + HeadLiteracy0 + NumCows0 +
   NetValue0
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLargeSize + dummyWithGrace +
    dummyInKind + dummyLargeSize.Time3 + dummyWithGrace.Time3 +
    dummyInKind.Time3 + dummyLargeSize.Time4 + dummyWithGrace.Time4 +
    dummyInKind.Time4 + dummyHadCows + HHsize0 + HeadLiteracy0 +
    NumCows0 + NetValue0 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
```

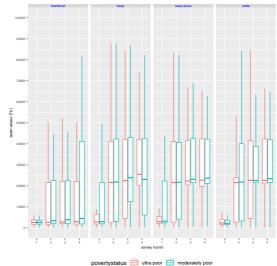
```
dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
[1] exclTP
[[1]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
      dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
      dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
      dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
      dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
      dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
      dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
      dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyLarge + dummyLargeGrace + dummyCattle +
      dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
      dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
      dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
      NetValue0 + dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor +
      dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
      dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
      dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4
[[3]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
      dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
      dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
      dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
      HHsize0 + HeadLiteracy0 + NetValue0 + dummyLarge.UltraPoor +
      dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
      dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
      dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
      dummyCattle.UltraPoor.Time4
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
      dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
      dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
      dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
      dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLarge.UltraPoor +
      dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
      dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
      dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
      dummyCattle.UltraPoor.Time4 + dummyHadCows.Large + dummyHadCows.Time3 +
      dummyHadCows.Large.Time3 + dummyHadCows.Time4 + dummyHadCows.Large.Time4 +
      dummyHadCows.LargeGrace + dummyHadCows.LargeGrace.Time3 +
      \tt dummyHadCows.LargeGrace.Time4 + dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4 + 
      dummyHadCows.Cattle.Time4
[[5]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
      dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
      dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
      dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
      HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 + dummyLarge.UltraPoor +
      dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor + dummyLarge.UltraPoor.Time3 +
      dummyLarge.UltraPoor.Time4 + dummyLargeGrace.UltraPoor.Time3 +
      dummyLargeGrace.UltraPoor.Time4 + dummyCattle.UltraPoor.Time3 +
      dummyCattle.UltraPoor.Time4
```

[[6]]

```
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyLarge + dummyLargeGrace +
    dummyCattle + dummyUltraPoor + dummyLarge.Time3 + dummyLargeGrace.Time3 +
    dummyCattle.Time3 + dummyUltraPoor.Time3 + dummyLarge.Time4 +
    dummyLargeGrace.Time4 + dummyCattle.Time4 + dummyUltraPoor.Time4 +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
    dummyLarge.UltraPoor + dummyLargeGrace.UltraPoor + dummyCattle.UltraPoor +
    dummyLarge.UltraPoor.Time3 + dummyLarge.UltraPoor.Time4 +
    dummyLargeGrace.UltraPoor.Time3 + dummyLargeGrace.UltraPoor.Time4 +
    dummyCattle.UltraPoor.Time3 + dummyCattle.UltraPoor.Time4 +
    dummyHadCows.Large + dummyHadCows.Time3 + dummyHadCows.Large.Time3 +
    dummyHadCows.Time4 + dummyHadCows.Large.Time4 + dummyHadCows.LargeGrace +
    dummyHadCows.LargeGrace.Time3 + dummyHadCows.LargeGrace.Time4 +
    dummyHadCows.Cattle + dummyHadCows.Cattle.Time3 + dummyHadCows.Cattle.Time4
[1] exclTPa
[[1]]
NetValue ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4
[[2]]
NetValue ~ Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   NetValue0 + dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor +
    dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
   HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. | Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[4]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor. Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4 + dummyHadCows.Time3 + dummyHadCows.Time4 +
    dummyHadCows.LargeSize + dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 -
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```

```
[[5]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 + dummyLargeSize.UltraPoor +
    dummyWithGrace.UltraPoor + dummyInKind.UltraPoor + dummyLargeSize.UltraPoor.Time3 +
    dummyLargeSize.UltraPoor.Time4 + dummyWithGrace.UltraPoor.Time3 +
    dummyWithGrace.UltraPoor.Time4 + dummyInKind.UltraPoor.Time3 +
    dummyInKind.UltraPoor.Time4
[[6]]
NetValue ~ FloodInRd1 + Time.3 + Time.4 + dummyUltraPoor + dummyLargeSize +
    dummyWithGrace + dummyInKind + dummyUltraPoor.Time3 + dummyLargeSize.Time3 +
    dummyWithGrace.Time3 + dummyInKind.Time3 + dummyUltraPoor.Time4 +
    dummyLargeSize.Time4 + dummyWithGrace.Time4 + dummyInKind.Time4 +
    dummyHadCows + HHsize0 + HeadLiteracy0 + NumCows0 + NetValue0 +
    dummyLargeSize.UltraPoor + dummyWithGrace.UltraPoor + dummyInKind.UltraPoor |+
    dummyLargeSize.UltraPoor.Time3 + dummyLargeSize.UltraPoor.Time4 +
    dummyWithGrace.UltraPoor.Time3 + dummyWithGrace.UltraPoor.Time4 +
    dummyInKind.UltraPoor.Time3 + dummyInKind.UltraPoor.Time4 +
    dummyHadCows.Time3 + dummyHadCows.Time4 + dummyHadCows.LargeSize +
    dummyHadCows.LargeSize.Time3 + dummyHadCows.LargeSize.Time4 +
    dummyHadCows.WithGrace + dummyHadCows.WithGrace.Time3 + dummyHadCows.WithGrace.Time4 -
    dummyHadCows.InKind + dummyHadCows.InKind.Time3 + dummyHadCows.InKind.Time4
```

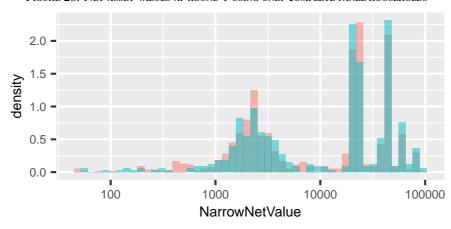
FIGURE 27: NET ASSET VALUES USING ONLY COMPLETE PANEL HOUSEHOLDS



Source: Survey data.

Note: Net asset values = total gross asset values - debt outstanding. Debt outstanding takes the value of the month immediately after the respective survey round interview. Net assets uses only assets observed for all 4 rounds in household assets.

Figure 28: Net asset values at round 1 using only complete panel households



povertystatus ■ ultra poor ■ moderately poor

Source: Survey data.

Note: Net asset values = total gross asset values - debt outstanding. Debt outstanding takes the value of the month immediately after the respective survey round interview. Net assets uses only assets observed for all 4 rounds in household assets.

TABLE 129: ANCOVA ESTIMATION OF COMPLETE PANEL NET ASSETS

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		35721.2 (0.0)	29090.5 (0.0)	25209.0 (0.0)	28512.5 (0.0)	25581.7 (0.0)	29233.3 (0.0)
Large	0.047 (0.46)	7700.4 (9.5)	8110.8 (7.4)	7378.2 (12.7)	3455.3 (34.4)	7345.2 (12.9)	3518.6 (34.1)
LargeGrace	0.035 (0.45)	-2603.3 (53.5)	-2008.7 (63.2)	-1377.9 (74.3)	-3785.0 (24.4)	-1490.0 (72.0)	-3891.9 (22.5)
Cattle	0.033 (0.45)	-6158.2 (2.2)	-4169.3 (21.0)	-3776.2 (28.0)	-6102.8 (2.5)	-3915.6 (26.1)	-6239.9 (2.2)
HadCattle	0.322 (0.47)				-9156.3 (25.8)		-10761.6 (24.4)
FloodInRd1	0.468 (0.50)			5143.7 (5.4)	6185.1 (1.3)	5116.1 (5.3)	6069.4 (1.2)
Head literate0	0.118 (0.32)			-2608.5 (38.9)	-2498.2 (38.9)	-2595.4 (39.3)	-2455.8 (39.7)
net asset value ₁	12126.558 (16498.30)		0.5 (0.1)	0.5 (0.1)	0.6 (2.8)	0.2 (48.5)	0.2 (39.0)
HHsize0	4.711 (1.40)			374.4 (67.3)	237.1 (78.8)	453.2 (60.5)	328.1 (70.3)
HadCattle × Large	0.024 (0.27)				24638.9 (1.7)		24022.7 (1.8)
HadCattle × LargeGrace	0.009 (0.25)				14114.6 (9.5)		13233.7 (10.4)
HadCattle × Cattle	-0.001 (0.24)				14692.2 (7.3)		14396.8 (7.6)
NumCattle0	0.468 (0.80)					5980.9 (38.0)	9274.6 (35.3)
mean of dependent variable \bar{R}^2		35662 0.038	35662 0.118	35662 0.125	35662 0.144	35662 0.126	35662 0.145
N	1275	1275	1275	1275	1275	1275	1275

Source: Estimated with GUK administrative and survey data.

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. Net assets use only assets observed for all 4 rounds in household assets. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 130: ANCOVA ESTIMATION OF COMPLETE PANEL NET ASSETS BY ATTRIBUTES

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		35721.2 (0.0)	29090.5 (0.0)	25209.0 (0.0)	28512.5 (0.0)	25581.7 (0.0)	29233.3 (0.0)
Unfront	0.115 (0.34)	7700.4 (9.5)	8110.8 (7.4)	7378.2 (12.7)	3455.3 (34.4)	7345.2 (12.9)	3518.6 (34.1)
WithGrace	0.068 (0.50)	-10303.7 (4.8)	-10119.5 (2.5)	-8756.1 (6.0)	-7240.2 (5.4)	-8835.2 (5.7)	-7410.6 (4.6)
InKind	0.033 (0.45)	-3554.9 (32.7)	-2160.5 (49.2)	-2398.4 (38.5)	-2317.9 (32.7)	-2425.6 (38.0)	-2347.9 (31.5)
HadCattle	0.322 (0.47)				-9156.3 (25.8)		-10761.6 (24.4)
FloodInRd1	0.468 (0.50)			5143.7 (5.4)	6185.1 (1.3)	5116.1 (5.3)	6069.4 (1.2)
Head literate0	0.118 (0.32)			-2608.5 (38.9)	-2498.2 (38.9)	-2595.4 (39.3)	-2455.8 (39.7)
net asset value ₁	12126.558 (16498.30)		0.5 (0.1)	0.5 (0.1)	0.6 (2.8)	0.2 (48.5)	0.2 (39.0)
HHsize0	4.711 (1.40)			374.4 (67.3)	237.1 (78.8)	453.2 (60.5)	328.1 (70.3)
HadCattle × Unfront	0.032 (0.21)				24638.9 (1.7)		24022.7 (1.8)
HadCattle × WithGrace	0.008 (0.28)				-10524.3 (20.0)		-10789.0 (19.0)
HadCattle × InKind	-0.001 (0.24)				577.6 (91.4)		1163.0 (82.9)
NumCattle0	0.468 (0.80)					5980.9 (38.0)	9274.6 (35.3)
mean of dependent variable $ar{R}^2$		35662 0.038	35662 0.118	35662 0.125	35662 0.144	35662 0.126	35662 0.145
N	1275	1275	1275	1275	1275	1275	1275

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. Net assets use only assets observed for all 4 rounds in household assets. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

TABLE 131: ANCOVA ESTIMATION OF COMPLETE PANEL NET ASSETS BY PERIOD

covariates	mean/std	(1)	(2)	(3)	(4)	(5)	(6)
(Intercept)		32690.8 (0.0)	26060.0 (0.0)	22178.6 (0.0)	25062.9 (0.0)	22551.3 (0.0)	25783.7 (0.0)
Large	0.047 (0.46)	7341.4 (12.2)	7751.8 (9.6)	7019.2 (15.9)	3297.7 (37.2)	6986.2 (16.0)	3361.1 (36.8)
LargeGrace	0.035 (0.45)	-3342.9 (46.8)	-2748.3 (54.2)	-2117.4 (64.0)	-4768.8 (16.2)	-2229.5 (61.8)	-4875.8 (14.7)
Cattle	0.033 (0.45)	-6373.8 (2.6)	-4384.9 (19.9)	-3991.9 (26.8)	-6188.7 (2.2)	-4131.2 (24.9)	-6325.7 (2.0)
rd 3	0.333 (0.47)	1328.6 (45.4)	1328.6 (45.4)	1328.6 (45.5)	1549.2 (33.7)	1328.6 (45.5)	1549.2 (33.7)
Large × rd 3	0.103 (0.30)	3466.4 (55.6)	3466.4 (55.6)	3466.4 (55.6)	1651.4 (75.4)	3466.4 (55.7)	1651.4 (75.4)
LargeGrace × rd 3	0.093 (0.29)	2593.9 (67.7)	2593.9 (67.7)	2593.9 (67.7)	3234.7 (56.0)	2593.9 (67.8)	3234.7 (56.0)
Cattle \times rd 3	0.093 (0.29)	377.4 (94.8)	377.4 (94.8)	377.4 (94.8)	-589.7 (91.0)	377.4 (94.8)	-589.7 (91.0)
rd 4	0.333 (0.47)	8740.3 (0.0)	8740.3 (0.0)	8740.3 (0.0)	9316.1 (0.0)	8740.3 (0.0)	9316.1 (0.0)
Large × rd 4	0.103 (0.30)	881.7 (88.8)	881.7 (88.8)	881.7 (88.8)	272.9 (96.1)	881.7 (88.8)	272.9 (96.1)
LargeGrace × rd 4	0.093 (0.29)	5786.1 (31.8)	5786.1 (31.8)	5786.1 (31.8)	7886.5 (13.0)	5786.1 (31.9)	7886.5 (13.0)
Cattle × rd 4	0.093 (0.29)	2017.9 (72.2)	2017.9 (72.3)	2017.9 (72.3)	1449.8 (78.5)	2017.9 (72.3)	1449.8 (78.5)
HadCattle	0.322 (0.47)				-8534.9 (30.1)		-10140.3 (28.1)
HadCattle × rd 3	0.107 (0.31)				-1952.5 (49.8)		-1952.5 (49.8)
HadCattle × rd 4	0.107 (0.31)				-5059.9 (17.4)		-5059.9 (17.4)
FloodInRd1	0.468 (0.50)			5143.7 (5.5)	6185.1 (1.4)	5116.1 (5.4)	6069.4 (1.3)
Head literate0	0.118 (0.32)			-2608.5 (39.1)	-2498.2 (39.2)	-2595.4 (39.4)	-2455.8 (40.0)
net asset value ₁	12126.558 (16498.30)		0.5 (0.1)	0.5 (0.1)	0.6 (2.9)	0.2 (48.6)	0.2 (39.3)
HHsize0	4.711 (1.40)			374.4 (67.4)	237.1 (79.0)	453.2 (60.6)	328.1 (70.4)
HadCattle × Large	0.024 (0.27)				23290.5 (3.4)		22674.3 (3.8)
HadCattle \times Large \times rd 3	0.008 (0.16)				12189.0 (19.7)		12189.0 (19.8)
HadCattle × Large × rd 4	0.008 (0.16)				4037.3 (73.9)		4037.3 (73.9)
HadCattle × LargeGrace	0.009 (0.25)				16681.5 (7.1)		15800.6 (7.8)
HadCattle × LargeGrace × rd 3	0.003 (0.15)				-8267.6 (40.8)		-8267.6 (40.8)
HadCattle × LargeGrace × rd 4	0.003 (0.15)				-20725.4 (5.8)		-20725.4 (5.8)
$HadCattle \times Cattle$	-0.001 (0.24)				13610.2 (13.4)		13314.8 (13.9)
HadCattle \times Cattle \times rd 3	-0.000 (0.14)				7610.7 (37.6)		7610.7 (37.6)
$HadCattle \times Cattle \times rd 4$	-0.000 (0.14)				5133.7 (60.9)		5133.7 (60.9)
NumCattle0	0.468 (0.80)					5980.9 (38.2)	9274.6 (35.6)
mean of dependent variable $ar{R}^2$		35662 0.054	35662 0.135	35662 0.142	35662 0.164	35662 0.142	35662 0.165
N	1275	1275	1275	1275	1275	1275	1275

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Large, LargeGrace, Cattle are indicator variables of the large, large grace, and cattle arms, respectively. The default arm category is traditional arm. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets use only assets observed for all 4 rounds in household assets. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 132: ANCOVA ESTIMATION OF COMPLETE PANEL NET ASSETS BY ATTRIBUTES AND PERIOD

	ESTIMATION		LIE IMMEL	TILL ASSELS	, DI ALIKII	JOIES AND	LKIOD
covariates (Intercept)	mean/std	(1) 32690.8	(2) 26060.0	(3) 22178.6	(4) 25062.9	(5) 22551.3	(6) 25783.7
		(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Unfront	0.115 (0.34)	7341.4 (12.2)	7751.8 (9.6)	7019.2 (15.9)	3297.7 (37.2)	6986.2 (16.0)	3361.1 (36.8)
WithGrace	0.068 (0.50)	-10684.3 (5.6)	-10500.1 (3.2)	-9136.6 (6.7)	-8066.6 (4.7)	-9215.8 (6.5)	-8236.9 (4.1)
InKind	0.033 (0.45)	-3031.0 (45.9)	-1636.6 (64.8)	-1874.4 (55.3)	-1419.9 (59.6)	-1901.7 (54.8)	-1449.9 (58.5)
rd 3	0.333 (0.47)	1328.6 (45.4)	1328.6 (45.4)	1328.6 (45.5)	1549.2 (33.7)	1328.6 (45.5)	1549.2 (33.7)
Unfront \times rd 3	0.288 (0.45)	3466.4 (55.6)	3466.4 (55.6)	3466.4 (55.6)	1651.4 (75.4)	3466.4 (55.7)	1651.4 (75.4)
WithGrace \times rd 3	0.185 (0.39)	-872.5 (83.3)	-872.5 (83.3)	-872.5 (83.3)	1583.3 (67.6)	-872.5 (83.3)	1583.3 (67.6)
InKind × rd 3	0.093 (0.29)	-2216.5 (57.5)	-2216.5 (57.5)	-2216.5 (57.6)	-3824.4 (30.3)	-2216.5 (57.6)	-3824.4 (30.4)
rd 4	0.333 (0.47)	8740.3 (0.0)	8740.3 (0.0)	8740.3 (0.0)	9316.1 (0.0)	8740.3 (0.0)	9316.1 (0.0)
Unfront × rd 4	0.288 (0.45)	881.7 (88.8)	881.7 (88.8)	881.7 (88.8)	272.9 (96.1)	881.7 (88.8)	272.9 (96.1)
WithGrace × rd 4	0.185 (0.39)	4904.5 (29.0)	4904.5 (29.0)	4904.5 (29.1)	7613.6 (4.8)	4904.5 (29.1)	7613.6 (4.8)
InKind × rd 4	0.093 (0.29)	-3768.3 (32.4)	-3768.3 (32.4)	-3768.3 (32.4)	-6436.7 (6.3)	-3768.3 (32.5)	-6436.7 (6.3)
HadCattle	0.322 (0.47)				-8534.9 (30.1)		-10140.3 (28.1)
HadCattle × rd 3	0.107 (0.31)				-1952.5 (49.8)		-1952.5 (49.8)
HadCattle × rd 4	0.107 (0.31)				-5059.9 (17.4)		-5059.9 (17.4)
FloodInRd1	0.468 (0.50)			5143.7 (5.5)	6185.1 (1.4)	5116.1 (5.4)	6069.4 (1.3)
Head literate0	0.118 (0.32)			-2608.5 (39.1)	-2498.2 (39.2)	-2595.4 (39.4)	-2455.8 (40.0)
net asset value ₁	12126.558 (16498.30)		0.5 (0.1)	0.5 (0.1)	0.6 (2.9)	0.2 (48.6)	0.2 (39.3)
HHsize0	4.711 (1.40)			374.4 (67.4)	237.1 (79.0)	453.2 (60.6)	328.1 (70.4)
HadCattle × Unfront	0.032 (0.21)				23290.5 (3.4)		22674.3 (3.8)
HadCattle \times Upfront \times rd 3	0.011 (0.12)				12189.0 (19.7)		12189.0 (19.8)
$HadCattle \times Unfront \times rd 4$	0.011 (0.12)				4037.3 (73.9)		4037.3 (73.9)
HadCattle × WithGrace	0.008 (0.28)				-6609.0 (43.1)		-6873.7 (41.5)
HadCattle × WithGrace × rd 3	0.003 (0.16)				-20456.5 (0.7)		-20456.5 (0.7)
HadCattle \times WithGrace \times rd 4	0.003 (0.16)				-24762.7 (2.2)		-24762.7 (2.2)
HadCattle × InKind	-0.001 (0.24)				-3071.2 (59.0)		-2485.8 (66.7)
HadCattle \times InKind \times rd 3	-0.000 (0.14)				15878.3 (1.5)		15878.3 (1.5)
HadCattle × InKind × rd 4	-0.000 (0.14)				25859.2 (0.2)		25859.2 (0.2)
NumCattle0	0.468 (0.80)					5980.9 (38.2)	9274.6 (35.6)
mean of dependent variable $ar{R}^2$		35662 0.054	35662 0.135	35662 0.142	35662 0.164	35662 0.142	35662 0.165
N	1275	1275	1275	1275	1275	1275	1275

Notes: 1. ANCOVA estimates using administrative and survey data. Post treatment regressands are regressed on categorical variables, pre-treatment regressand and other covariates. FloodInRd1 and HeadLiterate0 are indicator variables for the presence of self reported damage by a flood at the baseline, and literacy of household head, respectively. HHsize0 is household size at the baseline. We annotate the number of periods that a household is observed with T. The total number of households is shown for each values of T. T=4 indicates the number of households with complete panel information, T=3 indicates number of households observed three times, T=2 indicates the number of households observed twice. N indicates total number of observations used in ANCOVA estimation, or N=1×(T=2)+2×(T=3)+3×(T=4). Upfront is an indicator variable of the arm with an upfront large disbursement, WithGrace is an indicator variable of the arm with a grace period, InKind is an indicator variable of the arm which lends a heifer. rd2, rd3, rd4 are dummy variables for second, third, and fourth round of survey. Net assets use only assets observed for all 4 rounds in household assets. Household assets do not include livestock. Regressions (1)-(3), (5)-(6) use only arm and calendar information. (4) and (7) use previous six month repayment and saving information which is lacking in rd 1, hence starts from rd 2.

^{2.} P values in percentages in parenthesises. Standard errors are clustered at group (village) level.

TABLE 133: ANCOVA ESTIMATION OF COMPLETE PANEL NET ASSETS BY ARM, POVERTY STATUS, AND PERIOD

ABLE 133: AINCOVA	ESTIM	IATION OF C	OMPLETE P	ANEL NEI	ASSETS BY	ARM, POVE	KII SIAIUS,	, AND PERIC
covariates	ercept)	mean/std	(1) 31756.8	(2) 24762.5	(3) 18945.3	(4) 22197.8	(5) 19204.9	(6) 22794.3
(IIII	Large	0.047	(0.0) 7833.7	(0.0) 8711.6	(0.1)	(0.0) 4595.1	(0.1)	(0.0) 4594.8
Laure		(0.46)	(7.5)	(4.0)	(7.2)	(17.9)	(7.2)	(18.1) -3515.6
Larg	eGrace	0.035 (0.45)	-2556.1 (59.2)	-1582.8 (73.1)	-404.3 (93.1)	-3398.1 (32.5)	-489.9 (91.5)	(30.1)
	Cattle	0.033 (0.45)	-5518.2 (8.4)	-3167.2 (37.3)	-2276.0 (54.3)	-4776.4 (9.3)	-2381.7 (52.2)	-4921.6 (8.3)
Ulı	raPoor	0.595 (0.49)	-5705.5 (0.5)	-6017.0 (0.1)	-6556.0 (0.0)	-5553.3 (0.1)	-6524.8 (0.0)	-5483.9 (0.2)
Large × Ult	raPoor	0.030 (0.36)	-13993.8 (1.9)	-9623.3 (7.0)	-8019.0 (12.5)	-9947.7 (2.7)	-8050.6 (12.2)	-10021.0 (2.8)
LargeGrace × Ult	raPoor	0.037 (0.36)	7878.6 (19.1)	12027.1 (3.6)	14406.0 (1.7)	12087.4 (2.0)	14142.6 (1.8)	11557.4 (2.0)
Cattle × Ult	raPoor	0.021 (0.35)	4227.3 (42.8)	4325.6 (35.8)	6919.6 (13.0)	4718.7 (24.6)	6883.1 (13.0)	4629.2 (25.8)
	rd 3	0.333 (0.47)	1453.3 (44.3)	1453.3 (44.4)	1453.3 (44.4)	1727.6 (32.3)	1453.3 (44.4)	1727.6 (32.3)
Large	\times rd 3	0.103 (0.30)	3615.2 (57.3)	3615.2 (57.3)	3615.2 (57.3)	1480.4 (80.0)	3615.2 (57.3)	1480.4 (80.1)
LargeGrace	\times rd 3	0.093 (0.29)	2727.3 (69.0)	2727.3 (69.0)	2727.3 (69.0)	3264.2 (59.9)	2727.3 (69.0)	3264.2 (59.9)
Cattle	\times rd 3	0.093 (0.29)	434.2 (94.5)	434.2 (94.5)	434.2 (94.5)	-684.3 (90.7)	434.2 (94.5)	-684.3 (90.7)
UltraPoor	\times rd 3	0.198 (0.40)	2202.8 (45.7)	2202.8 (45.7)	2202.8 (45.8)	2289.1 (44.1)	2202.8 (45.8)	2289.1 (44.1)
Large × UltraPoor	\times rd 3	0.010 (0.21)	9191.0 (32.2)	9191.0 (32.2)	9191.0 (32.3)	8959.0 (33.4)	9191.0 (32.3)	8959.0 (33.4)
LargeGrace × UltraPoor	\times rd 3	0.012 (0.21)	-6092.7 (54.9)	-6092.7 (54.9)	-6092.7 (55.0)	-8144.7 (41.5)	-6092.7 (55.0)	-8144.7 (41.6)
Cattle × UltraPoor	\times rd 3	0.007 (0.20)	4290.2 (62.3)	4290.2 (62.3)	4290.2 (62.3)	3073.9 (72.1)	4290.2 (62.4)	3073.9 (72.1)
	rd 4	0.333	8866.4	8866.4	8866.4	9442.3	8866.4	9442.3
Large	× rd 4	(0.47) 0.103 (0.20)	(0.0) 1153.1 (85.4)	(0.0) 1153.1 (85.5)	(0.0) 1153.1 (25.5)	(0.0) 219.4 (07.0)	(0.0) 1153.1 (85.5)	(0.0) 219.4 (07.0)
LargeGrace	× rd 4	(0.30)	5667.8	(85.5) 5667.8	(85.5) 5667.8	(97.0) 7719.4	(85.5) 5667.8	(97.0) 7719.4
Cattle	\times rd 4	(0.29)	(36.4)	(36.4)	(36.4)	(17.9) 1498.4	(36.5) 2094.2	(17.9) 1498.4
UltraPoor	× rd 4	(0.29) 0.198	(72.8) 6552.4	(72.8) 6552.4	(72.9) 6552.4	(79.3) 6232.5	(72.9) 6552.4	(79.4) 6232.5
Large × UltraPoor	× rd 4	(0.40) 0.010	(4.1) 16456.6	(4.1) 16456.6	(4.1) 16456.6	(5.3) 16289.4	(4.1) 16456.6	(5.3) 16289.4
LargeGrace × UltraPoor	\times rd 4	(0.21) 0.012	(13.3)	(13.3) 1430.3	(13.4) 1430.3	(13.9) -871.3	(13.4) 1430.3	(13.9) -871.3
Cattle × UltraPoor	× rd 4	(0.21) 0.007	(87.9) 6253.8	(87.9) 6253.8	(87.9) 6253.8	(92.8) 5556.5	(87.9) 6253.8	(92.8) 5556.5
Had	dCattle	(0.20) 0.322	(42.3)	(42.3)	(42.4)	(48.3) -7780.4	(42.4)	(48.3) -8969.0
HadCattle		(0.47) 0.107				(33.1) -2089.7		(32.7) -2089.7
HadCattle	× rd 4	(0.31) 0.107				(46.6) -4962.1		(46.6) -4962.1
	lInRd1	(0.31)			5787.5	(17.1) 6578.5	5764.3	(17.1) 6483.8
Head li		(0.50) 0.118			(3.5) -2795.3	(1.0) -2757.5	(3.4) -2782.3	(0.9) -2716.8
net asset		(0.32) 12126.558		0.5	(34.4)	(33.0)	(34.7)	(33.6)
	Hsize0	(16498.30) 4.711		(0.1)	(0.2) 634.3	(3.6) 488.5	(27.0) 681.8	(23.4) 551.8
HadCattle >		(1.40)			(45.6)	(57.2) 20591.8	(42.1)	(51.2) 20198.1
		(0.27) 0.008				(5.1)		(5.3) 13344.3
HadCattle × Large		(0.16)				13344.3 (15.0)		(15.0)
HadCattle × Large		0.008 (0.16)				5767.9 (62.3)		5767.9 (62.3)
HadCattle × Larg		0.009 (0.25)				16036.0 (7.8)		15410.2 (8.2)
HadCattle × LargeGrace		0.003 (0.15)				-8631.0 (39.1)		-8631.0 (39.1)
HadCattle × LargeGrace		0.003 (0.15)				-20570.1 (6.5)		-20570.1 (6.5)
HadCattle ×		-0.001 (0.24)				12984.8 (14.0)		12782.6 (14.4)
HadCattle × Cattle		-0.000 (0.14)				7096.7 (40.6)		7096.7 (40.6)
HadCattle × Cattle		-0.000 (0.14)		200		4180.5 (68.0)		4180.5 (68.1)
	Cattle0	0.468 (0.80)		288			3685.6 (58.1)	6757.2 (48.9)
mean of dependent var \bar{R}^2	riable		35662 0.08	35662 0.158	35662 0.169	35662 0.187	35662 0.169	35662 0.187

Table 134: ANCOVA estimation of complete panel net assets by attributes, poverty status, and $\frac{1}{2}$

CIO	עני							
	covariates (Intercept)	mean/std	(1) 31756.8	(2) 24762.5	(3) 18945.3	(4) 22197.8	(5) 19204.9	(6) 22794.3
	Upfront	0.115	(0.0) 7833.7	(0.0) 8711.6	(0.1)	(0.0) 4595.1	(0.1)	(0.0) 4594.8
	WithGrace	(0.34)	(7.5) -10389.8	(4.0) -10294.4	(7.2) -8712.3	(17.9) -7993.3	(7.2)	(18.1)
		0.068 (0.50)	(4.0)	(1.8)	(5.1)	(2.8)	-8760.0 (5.0)	-8110.4 (2.4)
	InKind	0.033 (0.45)	-2962.0 (46.4)	-1584.4 (65.4)	-1871.7 (53.9)	-1378.3 (59.8)	-1891.8 (53.5)	-1406.0 (58.8)
	UltraPoor	0.595 (0.49)	-5705.5 (0.5)	$ \begin{array}{c} -6017.0 \\ (0.1) \end{array} $	-6556.0 (0.0)	-5553.3 (0.1)	-6524.8 (0.0)	-5483.9 (0.2)
	Unfront × UltraPoor	0.089 (0.25)	-13993.8 (1.9)	-9623.3 (7.0)	-8019.0 (12.5)	-9947.7 (2.7)	-8050.6 (12.2)	-10021.0 (2.8)
	WithGrace × UltraPoor	$0.058 \\ (0.38)$	21872.4 (0.0)	21650.3 (0.0)	22425.0 (0.0)	22035.1 (0.0)	22193.3 (0.0)	21578.4 (0.0)
	InKind × UltraPoor	0.021 (0.35)	-3651.3 (49.9)	-7701.4 (16.1)	-7486.4 (17.2)	-7368.7 (17.9)	-7259.6 (17.7)	-6928.2 (18.7)
	rd 3	0.333 (0.47)	1453.3 (44.3)	1453.3 (44.4)	1453.3 (44.4)	1727.6 (32.3)	1453.3 (44.4)	1727.6 (32.3)
	UltraPoor × rd 3	0.198 (0.40)	2202.8 (45.7)	2202.8 (45.7)	2202.8 (45.8)	2289.1 (44.1)	2202.8 (45.8)	2289.1 (44.1)
	Upfront \times rd 3	0.288 (0.45)	3615.2 (57.3)	3615.2 (57.3)	3615.2 (57.3)	1480.4 (80.0)	3615.2 (57.3)	1480.4 (80.1)
	WithGrace × rd 3	0.185 (0.39)	-887.9 (83.1)	-887.9 (83.1)	-887.9 (83.1)	1783.8 (63.8)	-887.9 (83.1)	1783.8 (63.8)
	InKind × rd 3	0.093 (0.29)	-2293.0 (57.1)	-2293.0 (57.1)	-2293.0 (57.2)	-3948.5 (29.9)	-2293.0 (57.2)	-3948.5 (29.9)
	Unfront × UltraPoor × rd 3	0.030 (0.15)	9191.0 (32.2)	9191.0 (32.2)	9191.0 (32.3)	8959.0 (33.4)	9191.0 (32.3)	8959.0 (33.4)
	WithGrace × UltraPoor × rd 3	0.019 (0.22)	-15283.7 (5.7)	-15283.7 (5.7)	-15283.7 (5.7)	-17103.7 (3.7)	-15283.7 (5.7)	-17103.7 (3.7)
	InKind × UltraPoor × rd 3	0.007	10382.9	10382.9	10382.9	11218.6	10382.9	11218.6
	rd 4	(0.20) 0.333 (0.47)	(15.9) 8866.4	(15.9) 8866.4	(16.0) 8866.4	(13.1) 9442.3	(16.0) 8866.4	(13.1) 9442.3
	UltraPoor × rd 4	(0.47) 0.198	(0.0) 6552.4	(0.0) 6552.4	(0.0) 6552.4	(0.0) 6232.5	(0.0) 6552.4	(0.0) 6232.5
	Upfront × rd 4	(0.40) 0.288	(4.1) 1153.1	(4.1) 1153.1	(4.1) 1153.1	(5.3) 219.4	(4.1) 1153.1	(5.3) 219.4
	WithGrace × rd 4	(0.45)	(85.4) 4514.7	(85.5) 4514.7	(85.5) 4514.7	(97.0) 7500.1	(85.5) 4514.7	(97.0) 7500.1
	InKind × rd 4	(0.39) 0.093	(28.8) -3573.6	(28.8) -3573.6	(28.9) -3573.6	(3.7) -6221.1	(28.9) -3573.6	(3.7) -6221.1
	Unfront × UltraPoor × rd 4	(0.29)	(35.4) 16456.6	(35.4) 16456.6	(35.5) 16456.6	(7.7) 16289.4	(35.5) 16456.6	(7.7) 16289.4
	WithGrace × UltraPoor × rd 4	(0.15) 0.019	(13.3) -15026.4	(13.3) -15026.4	(13.4) -15026.4	(13.9) -17160.7	(13.4) -15026.4	(13.9) -17160.7
	InKind × UltraPoor × rd 4	(0.22) 0.007	(12.9) 4823.5	(12.9) 4823.5	(13.0) 4823.5	(8.4) 6427.9	(13.0) 4823.5	(8.4) 6427.9
	HadCattle	(0.20) 0.322	(43.9)	(43.9)	(44.0)	(31.0) -7780.4	(44.0)	(31.0)
	HadCattle × rd 3	(0.47)				(33.1)		(32.7)
	HadCattle × rd 4	(0.31)				(46.6) -4962.1		(46.6) -4962.1
		(0.31)			5707.5	(17.1)	57(4.2	(17.1)
	FloodInRd1	0.468 (0.50)			5787.5 (3.5)	6578.5 (1.0)	5764.3 (3.4)	6483.8 (0.9)
	Head literate0	0.118 (0.32)			-2795.3 (34.4)	-2757.5 (33.0)	-2782.3 (34.7)	-2716.8 (33.6)
	net asset value	12126.558 (16498.30)		0.5 (0.1)	0.5 (0.2)	(3.6)	(27.0)	(23.4)
	HHsize0	4.711 (1.40)			634.3 (45.6)	488.5 (57.2)	681.8 (42.1)	551.8 (51.2)
	HadCattle × Unfront	0.032 (0.21)				20591.8 (5.1)		20198.1 (5.3)
	HadCattle \times Upfront \times rd 3	0.011 (0.12)				13344.3 (15.0)		13344.3 (15.0)
	$HadCattle \times Unfront \times rd 4$	0.011 (0.12)				5767.9 (62.3)		5767.9 (62.3)
	HadCattle × WithGrace	0.008 (0.28)				-4555.9 (57.6)		-4787.8 (55.9)
	HadCattle × WithGrace × rd 3	0.003 (0.16)				-2.1975.3 (0.4)		-21975.3 (0.4)
	HadCattle \times WithGrace \times rd 4	0.003 (0.16)				-26338.0 (1.0)		-26338.0 (1.0)
	HadCattle × InKind	-0.001 (0.24)				-3051.1 (60.3)		-2627.6 (65.6)
	HadCattle × InKind × rd 3	-0.000 (0.14)				15727.7 (1.9)		15727.7 (1.9)
	HadCattle × InKind × rd 4	-0.000 (0.14)				24750.6 (0.3)		24750.6 (0.3)
	NumCattle0	0.468		289		(0.5)	3685.6 (58.1)	6757.2
	mean of dependent variable	(0.80)	35662	35662	35662	35662	(58.1) 35662 0.160	(48.9) 35662
	\bar{R}^2		0.08	0.158	0.169	0.187	0.169	0.187

V Summarising results

V.1 Counting observations used in ANCOVA estimation

	survey	Arm	BStatus	Num	
1:	1	traditional	borrower	1	109
2:	2	traditional	borrower	1	108
3:	3	traditional	borrower	1	108
4:	4	traditional	borrower	1	107
5:	1	traditional	individual rejection	1	30
6:	2	traditional	individual rejection	1	26
7:	3	traditional	individual rejection	1	26
8:			individual rejection	1	25
9:	1		group rejection	1	40
10:	2	traditional	group rejection	1	39
11:		traditional	group rejection	1	36
12:	4	traditional	group rejection	1	36
13:	1	traditional	rejection by flood	1	20
14:		traditional	rejection by flood	1	17
15:		traditional	rejection by flood	1	18
16:	1	large	borrower	1	170
17:	2	large	borrower	1	162
18:	3	large	borrower	1	164
19:	4	large	borrower	1	163
20:	1	_	individual rejection	1	9
21:	2		individual rejection	1	8
22:	3	_	individual rejection	1	9
		_	_		
23:	4	_	individual rejection	1	9
24:	1	large	group rejection	1	20
25:	2	large	group rejection	1	20
26:	3	large	group rejection	1	19
27:	4	large	group rejection	1	19
28:	1	large grace	borrower	1	166
29:		large grace	borrower	1	162
30:	3	large grace	borrower	1	162
31:	4	large grace	borrower	1	159
32:	1		individual rejection	1	13
33:	2		individual rejection	1	9
34:	3		individual rejection	1	11
35:	4		individual rejection	1	11
36:	1	large grace	group rejection	1	10
37:	1	large grace	rejection by flood	1	10
38:	1	cattle	borrower	1	152
39:	2	cattle	borrower	1	150
40:	3	cattle	borrower	1	149
41:	4	cattle	borrower	1	146
42:	1		individual rejection	1	37
43:	2		individual rejection	1	29
44:	3		individual rejection	1	30
45:	4		individual rejection	1	30
46:	1	cattle	rejection by flood	1	10
47:	2	cattle	rejection by flood	1	10
47:	3	cattle	-	1	10
40:			rejection by flood BStatus	-	N
	survey	Arm	BStatus	Nulli	IN

```
Arm
                TradGroup
                                        BStatus
                                                     hhid
                                                                  survey
traditional:5
              planned:0 borrower
                                           : 1
                                                Min. : 7031513
                                                                  1:4
             twice :0
large :0
                        pure saver
                                           : 0
                                               1st Qu.: 7054408
                                                                  3:1
large grace: 0 double : 0 individual rejection: 0 Median : 7054413
cattle :0 NA's :5 group rejection :0 Mean :36912148
                        rejection by flood :4
                                                3rd Qu.:81710203
                                                Max. :81710203
NLAssetAmount
Min. :1960
1st Qu.:2780
Median :3600
Mean :4040
3rd Qu.:5080
Max. :6560
NA's
    : 2
```

```
Arm BStatus hhid survey NumCows

1: traditional borrower 7031513 1 1

2: traditional rejection by flood 7054408 1 0

3: traditional rejection by flood 7054413 1 0

4: traditional rejection by flood 81710203 1 2

5: traditional rejection by flood 81710203 3 2
```

```
Empty data.table (0 rows and 3 cols): BStatus, hhid, tee
```

```
BStatus Num
   survey
                     borrower 1 102
1:
       1
2:
        2
                     borrower
                             1 106
                             1 108
3:
       3
                     borrower
                             1 107
4:
       4
                     borrower
5:
       1 individual rejection
                                 28
                               1
                             1
6:
       2 individual rejection
                                 26
                             1 26
7:
       3 individual rejection
8:
       4 individual rejection
                             1 25
9:
                             1 35
       1
             group rejection
10:
       2
                             1 39
             group rejection
       3
                             1 36
11:
              group rejection
                               1 36
12:
       4
              group rejection
          rejection by flood
13:
        1
                               1
                                  19
14:
        2 rejection by flood
                             1 17
15:
       3 rejection by flood
                             1 18
```

```
used (Mb) gc trigger (Mb) max used (Mb)
Ncells 2673356 142.8 4165176 222.5 4165176 222.5
Vcells 330190162 2519.2 526025826 4013.3 362992754 2769.5
```

```
[1] 1
```

```
[1] 10
```

```
Warning in rbind(c("", "\&", rbind(paste0("\\makebox[", hcenter, unit, "]{", : number of continuous of the continuous o
```

Warning in rbind(c("", "&", rbind(paste0("\\makebox[", hcenter, unit, "]{", : number of co

Warning in rbind(c("", "&", rbind(paste0("\\makebox[", hcenter, unit, "]{", : number of content of the content

Таві	LE 135: NUMBER OF OBSERVA	ATIONS BY BORR	OWER STAT	US AND ARM		
	(a)		(c)	(d)	(e)	(f)
File	BStatus	traditional	large	large grace	cattle	sum
Schooling	borrower	101	224	205	183	713
_	individual rejection	23	9	16	41	89
	group rejection	54	13	17	0	84
	rejection by flood	27	0	13	11	51
	sum	205	246	251	235	937
AllMeetingsRepayment	borrower	85	170	166	152	573
C 1 7	individual rejection	30	9	13	37	89
	group rejection	40	20	10	0	70
	rejection by flood	20	0	10	10	40
	sum	175	199	199	199	772
Repayment	borrower	85	170	166	152	573
1 7	individual rejection	30	9	13	37	89
	group rejection	39	20	9	0	68
	rejection by flood	20	0	10	10	40
	sum	174	199	198	199	770
Asset	borrower	85	170	165	152	572
	individual rejection	30	9	13	37	89
	group rejection	40	20	0	0	60
	rejection by flood	20	0	10	10	40
	sum	175	199	188	199	761
Livestock	borrower	85	170	166	152	573
	individual rejection	30	9	13	37	89
	group rejection	40	20	10	0	70
	rejection by flood	20	0	10	10	40
	sum	175	199	199	199	772
LivestockLong	borrower	85	170	166	152	573
<u> </u>	individual rejection	30	9	13	37	89
	group rejection	40	20	10	0	70
	rejection by flood	20	0	10	10	40
	sum	175	199	199	199	772
LivestockProducts	borrower	9	38	24	23	94
Zi. Colorii Toddolo	individual rejection	$\overset{\checkmark}{2}$	0	0	2	4
	group rejection	0	8	Ö	0	8
	rejection by flood	1	0	Ö	0	1
	sum	12	46	24	25	107
LabourIncome	borrower	84	165	165	151	565
Labourneome	individual rejection	27	9	11	33	80
	group rejection	39	19	0	0	58
	rejection by flood	18	0	ő	10	28
	sum	168	193	176	194	731
FarmIncome	borrower	169	335	331	303	1138
1 diminiconic	individual rejection	57	18	24	70	169
	group rejection	79	40	10	0	129
	rejection by flood	38	0	10	20	68
	sum	343	393	375	393	1504
	Sum	573	373	213	373	1507

Note:

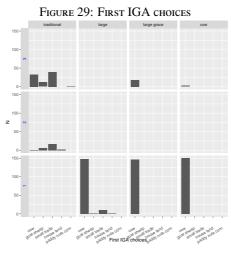
Table 136: Numb	er of observations use (a)		BY BORRO	OWER STATUS AND (d)	D ARM AT PEI (e)	RIOD 1 (f)
E.I	D.C.	(b	•	•	1	
File	BStatus	traditional	large	large grace	cattle	sum
Schooling	borrower	79 15	160	156	139	534
Schooling	individual rejection	15	5	4	26	50
Schooling	group rejection	45	10	0	0	55
Schooling	rejection by flood	17	0	0	10	27
Schooling	sum	156	175	160	175	666
Repayment	borrower	76	120	112	91	399
Repayment	individual rejection	0	0	0	0	0
Repayment	group rejection	0	0	0	0	0
Repayment	rejection by flood	0	0	0	0	0
Repayment	sum	76	120	112	91	399
Asset	borrower	84	166	166	152	568
Asset	individual rejection	27	9	11	33	80
Asset	group rejection	39	20	0	0	59
Asset	rejection by flood	18	0	0	10	28
Asset	sum	168	195	177	195	735
AssetRobustness	borrower	39	108	96	78	321
AssetRobustness	individual rejection	12	3	7	23	45
		28	9	0		
AssetRobustness	group rejection				0	37
AssetRobustness	rejection by flood	10	0	0	6	16
AssetRobustness	sum	89	120	103	107	419
Land	borrower	55	107	103	88	353
Land	individual rejection	14	4	3	11	32
Land	group rejection	15	33	0	0	48
Land	rejection by flood	8	0	0	0	8
Land	sum	92	144	106	99	441
Livestock	borrower	83	165	164	151	563
Livestock	individual rejection	25	9	11	28	73
Livestock	group rejection	36	19	10	0	65
Livestock	rejection by flood	18	0	0	9	27
	*	162			188	
Livestock	sum		193	185		728
NumCows	borrower	59	120	126	129	434
NumCows	individual rejection	13	4	6	17	40
NumCows	group rejection	16	18	10	0	44
NumCows	rejection by flood	7	0	0	7	14
NumCows	sum	95	142	142	153	532
AssetLivestock	borrower	73	150	149	147	519
AssetLivestock	individual rejection	21	5	10	25	61
AssetLivestock	group rejection	32	19	0	0	51
AssetLivestock	rejection by flood	16	0	0	8	24
AssetLivestock	sum	142	174	159	180	655
NetAssetGUK	borrower	33	104	90	75	302
NetAssetGUK	individual rejection	10	2	6	17	35
	group rejection	24	9	0	0	33
NetAssetGUK						
NetAssetGUK	rejection by flood	8	0	0	5	13
NetAssetGUK	sum	75 72	115	96	97	383
NetAsset	borrower	73	150	149	147	519
NetAsset	individual rejection	21	5	10	25	61
NetAsset	group rejection	32	19	0	0	51
NetAsset	rejection by flood	16	0	0	8	24
NetAsset	sum	142	174	159	180	655
LabourIncome	borrower	99	194	194	177	664
LabourIncome	individual rejection	27	11	12	31	81
LabourIncome	group rejection	47	21	0	0	68
LabourIncome	rejection by flood	19	0	ő	14	33
LabourIncome	sum	192	226	206	222	846
FarmIncome	borrower	4	24	13	10	51
	individual rejection	0	0			
FarmIncome				0	0	0
FarmIncome	group rejection	0	2	0	0	2
FarmIncome	rejection by flood	0	0	0	0	0
FarmIncome	sum	4	26	13	10	53
(1)	borrower	84	163	162	149	558
Consumption		2.	0	11	30	76
Consumption Consumption	individual rejection	26	9		50	
	individual rejection group rejection	26 36	9 18	0	0	54
Consumption						

	R OF OBSERVATIONS USED (a)		(c)	(d)	(e)	(f)
		(b	, ,	, ,		` '
File	BStatus	traditional	large	large grace	cattle	sui
Schooling	borrower	65	142	134	112	45
Schooling	individual rejection	11	6	2	22	41
Schooling	group rejection	38	9	0	0	47
Schooling	rejection by flood	0	0	0	0	0
Schooling	sum	114	157	136	134	54
Repayment	borrower	85	170	166	152	57
Repayment	individual rejection	0	0	0	0	0
Repayment	group rejection	0	0	0	0	0
Repayment	rejection by flood	0	0	0	0	0
Repayment	sum	85	170	166	152	57
Asset	borrower	83	161	155	145	54
Asset	individual rejection	24	8	9	26	67
Asset	group rejection	36	19	0	0	55
Asset	rejection by flood	0	0	ő	Ö	0
Asset	sum	143	188	164	171	66
AssetRobustness	borrower	38	106	93	75	31:
AssetRobustness	individual rejection	10	3	6	17	36
AssetRobustness	group rejection	28	9	0	0	37
AssetRobustness		0	0	0	0	0
	rejection by flood					
AssetRobustness	sum	76	118	99	92	38:
Land	borrower	49	100	93	68	31
Land	individual rejection	9	4	3	9	25
Land	group rejection	15	30	0	0	45
Land	rejection by flood	0	0	0	0	0
Land	sum	73	134	96	77	38
Livestock	borrower	70	144	135	139	48
Livestock	individual rejection	16	4	7	21	48
Livestock	group rejection	28	18	0	0	46
Livestock	rejection by flood	0	0	0	0	0
Livestock	sum	114	166	142	160	58
NumCows	borrower	59	126	116	128	42
NumCows	individual rejection	12	3	4	12	31
NumCows	group rejection	20	16	0	0	36
NumCows	rejection by flood	0	0	0	0	0
NumCows	sum	91	145	120	140	49
AssetLivestock	borrower	70	144	135	139	48
AssetLivestock	individual rejection	16	4	7	21	48
AssetLivestock	group rejection	28	18	0	0	46
AssetLivestock	rejection by flood	0	0	0	0	0
AssetLivestock	sum	114	166	142	160	58
NetAssetGUK	borrower	31	100	85	71	28
NetAssetGUK	individual rejection	7	1	5	14	27
NetAssetGUK	group rejection	21	9	0	0	30
NetAssetGUK	rejection by flood	0	0	0	0	0
NetAssetGUK	sum	59	110	90	85	34
NetAsset	borrower	70	144	135	139	48
NetAsset	individual rejection	16	4	7	21	48
NetAsset	group rejection	28	18	Ó	0	46
NetAsset	rejection by flood	0	0	0	0	0
NetAsset	sum	114	166	142	160	58
LabourIncome	borrower	103	208	196	172	67
LabourIncome	individual rejection	26	12	130	35	86
LabourIncome	group rejection	46	23	0	0	69
LabourIncome	rejection by flood	0 175	0	0 209	0	0
LabourIncome	Sum	175	243		207	83
FarmIncome	borrower	NA	1	NA	NA	1
FarmIncome	individual rejection	NA	0	NA	NA	0
FarmIncome	group rejection	NA	0	NA	NA	0
FarmIncome	rejection by flood	NA	0	NA	NA	0
FarmIncome	sum	NA	1	NA	NA	1
Consumption	borrower	83	161	155	145	54
Consumption	individual rejection	24	8	9	26	67
Consumption	group rejection	36	18	0	0	54
Consumption	rejection by flood	0	0	0	0	0
Consumption	rejection by mood	143	187	164	171	665

V.2 IGA

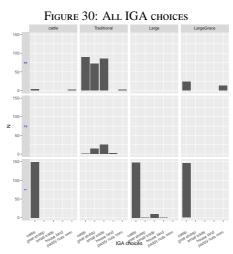
 $IGA\ info\ is\ from\ c:/data/GUK/received/cleaned_by_RA/GUKAdminstrativeData.dta.$

In traditional arm, there are 33 borrowing members who report cattle as their first IGA, and 76 borrowing members (69.72%) who report other than cattle as their first IGA. This contrasts with the non-traditional arms that 466 borrowing members who report cattle as their first IGA and 25 borrowing members (5.09%) other than cattle as their first IGA.



Source: Survey data.

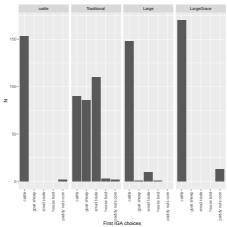
Note: The first income generating activity (IGA) choices are plotted. The rows headed by n = 1, 2, 3 indicate there are n project(s) owned by the household, and displayed type of project on the horizontal axis shows the contents of first project that was invested.



Source: Survey data.

Note:

FIGURE 31: ALL IGA CHOICES (COLLAPSED VIEW)



Note:

Large/Upfront

V.3 Graphs

Cumulative impacts relative to traditional up to t is given by (Intercept) + $b_{Arm} + b_t + b_{Arm}*_t$. This is given by Intercept+Arm+TimeX+Arm.TimeX. For the traditional arm, it is given by (Intercept) + b_t .

Need to run construct confi manually and run EstimationMemo.rnw again to draw error bar charts. To compute linear functions of estimated parameters, we use a vector hypvec giving linear combinations, covariance matrix of the regression thisV, and run *Wald* tests with:

glht(model=thisreg, linfct = matrix(hypvec, byrow = T, nrow=1),
 alternative="two sided" vecy = this ")

alternativ	e="two.sided", vcov.=thisV)	
Object	What it does	Note
hypvecT0	Picks covariates to test overall change. "\\(Intercept\\)"	
hypvecN0	<pre>Baseline level for each arm. "\\(Intercept\\)", "dummyInKind"</pre>	
hypvecN1	Difference of baseline Arm relative to baseline trad. "dummyInKind"	
hypvecTinT	Picks covariates to test changes in period t relative to baseline. "Time.4"	
hypvec	Collects all coefficients by far to compute cumulative sums. \\((Intercept\\)) + Time.T	hypvec < - hypvecT0 + hypvecTinT
hypvecNinT	Picks covariates to test changes in period t relative to baseline trad. "Time.4", "dummyInKind.Time4"	Use this if baseline trad is the reference.
dhypvecNinT	Difference relative to concurrent trad. "dummyInKind.Time4"	Marginal difference between g and trad in period T.
cumNrelativeT	Cumulative difference relative to concurrent trad. "dummyInKind.Time2"+"dummyInKind.Time3" +"dummyInKind.Time4"	cumstrings adds dummyInKind.TimeX as period loops goes, with paste(cumstrings, paste0("", covadd.nontrad[[i]][2], "\$"), sep = "—")
periNrelativeT	Periodwise difference relative to concurrent trad. "dummyInKind"+"dummyInKind.TimeX"	Total difference between g and trad in time X. Period X effects relative to trad in period X. "dummyInKind" is stored in peristrings at hypvecN1
hypvecN2	Nontrad gross mean in period t. \\(Intercept\\)+TimeX+TimeX.Arm =hypvecT0 + hypvecNinT regressand	Baseline trad + change relative to baseline trad.
tributes	land net non livestock assets net a	assets cattle

15

15

LargeGrace	15	15	15	9	
Cattle	15	15	15	9	
WithGrace	15	15	15	9	
InKind	15	15	15	9	

	OwnCa	attle	9	
AdiCattle	0	1	<na></na>	Sum
0	521	141	0	662
1	112	0	0	112
<na></na>	0	0	1	1
Sum	633	141	1	775

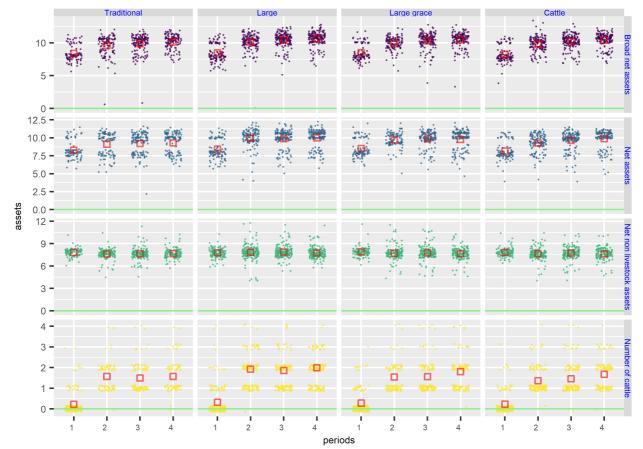


FIGURE 32: ASSETS BY PERIOD

Source: Tabulated with survey data.

Note: Red squares are means of respective data. Asset values are expressed in BDT. Net assets=total assets - debts. Debts include outstanding loaned amount of the experiment. Total assets use items observed in all 4 rounds of household surveys. Net non livestock assets=net assets-livestock asset values. Number of cattle is a headcount of cattle holding. All net assets are in logarithms, number of cattle is in natural numbers.

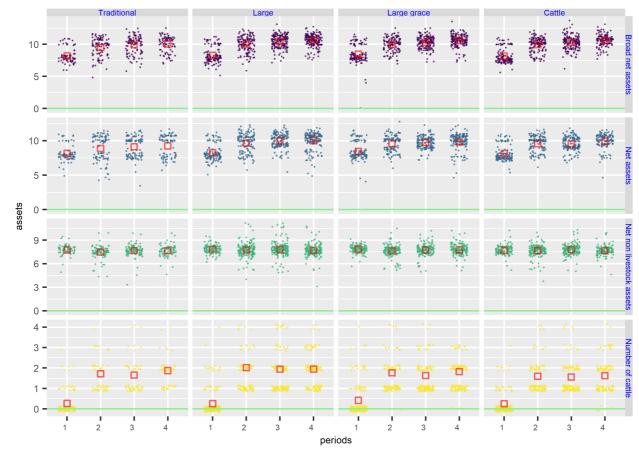
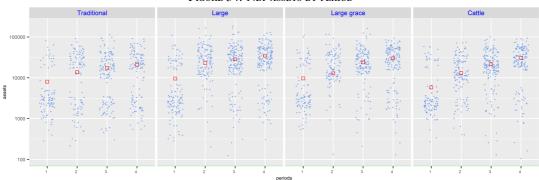


FIGURE 33: ASSETS BY PERIOD AMONG OUT OF SAMPLE MEMBERS

Source: Tabulated with survey data. Out of sample members are households who were not a part of 800 members and treated with the same intervention arms as in our experiment.

Note: Red squares are means of respective data. Asset values are expressed in BDT. Net assets=total assets - debts. Debts include outstanding loaned amount of the experiment. Total assets use items observed in all 4 rounds of household surveys. Net non livestock assets=net assets-livestock asset values. Number of cattle is a headcount of cattle holding. All net assets are in logarithms, number of cattle is in natural numbers.

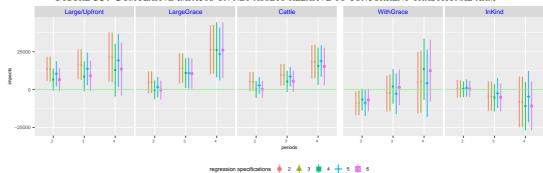
Figure 34: Net assets by period



Source: Tabulated with survey data.

Note: Red squares are means of respective data. Net assets are in logarithms.

FIGURE 35: CUMULATIVE IMPACTS ON NET ASSETS RELATIVE TO CONCURRENT TRADITIONAL ARM



Source: Estimated with survey data.

Note: Cumulative impacts on net assets. Large/Upfront, Large grace, Cattle are impacts relative to Traditional arm. WithGrace and InKind are the impacts of respective marginal functional attributes. Panels show cumulative impacts of respective arm or attributes k relative to tradiotional arm which are obtained by 2nd period = b_{2k} , 3rd period = $b_{2k} + b_{3k}$, 4th period = $b_{2k} + b_{4k}$ in the estimating equation $y_{it} = b_1y_{i1} + b_2 + b_2'\mathbf{d}_i + b_3c_{3t} + b_3'\mathbf{d}_ic_{3t} + b_4c_{4t} + b_4'\mathbf{d}_ic_{4t} + e_{it}$, t = 2, 3, 4, where y_{it} is the outcome measure of member i in period t, t is a vector of arms or functional attributes, t are indicator variables of period 3 and 4. Bars show 95% confidence intervals using cluster robust standard errors. Asset values are expressed in Taka. Net assets=total assets - debts. Debts include outstanding loaned amount of the experiment. Total assets use items observed in all 4 rounds of household surveys.

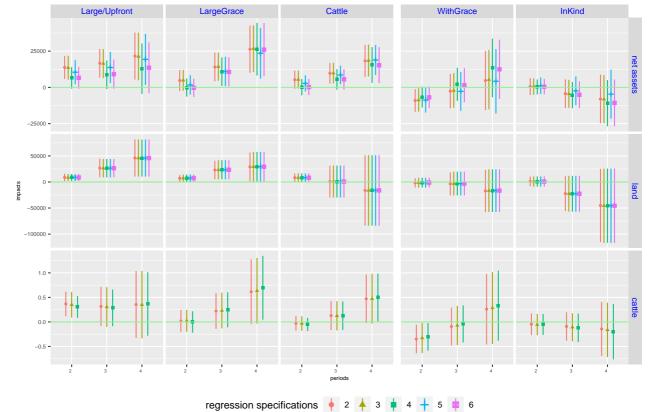


FIGURE 36: CUMULATIVE IMPACTS ON VARIOUS ASSETS RELATIVE TO CONCURRENT TRADITIONAL ARM

Note: Cumulative impacts on various asset measures. Large/Upfront, Large grace, Cattle are impacts relative to Traditional arm. WithGrace and InKind are the impacts of respective marginal functional attributes. Panels show cumulative impacts of respective arm or attributes k relative to tradiotional arm which are obtained by 2nd period = b_{2k} , 3rd period = $b_{2k} + b_{3k}$, 4th period = $b_{2k} + b_{4k}$ in the estimating equation $y_{it} = b_1y_{i1} + b_2 + b_2'\mathbf{d}_i + b_3c_{3t} + b_3'\mathbf{d}_ic_{3t} + b_4c_{4t} + b_4'\mathbf{d}_ic_{4t} + e_{it}$, t = 2, 3, 4, where y_{it} is the outcome measure of member i in period t, \mathbf{d}_i is a vector of arms or functional attributes, c_{3t} , c_{4t} are indicator variables of period 3 and 4. Bars show 95% confidence intervals using cluster robust standard errors. Asset values are expressed in BDT. Net assets=total assets - debts. Debts include outstanding loaned amount of the experiment. Total assets use items observed in all 4 rounds of household surveys. Net non livestock assets=net assets-livestock asset values. Number of cattle is a headcount of cattle holding.

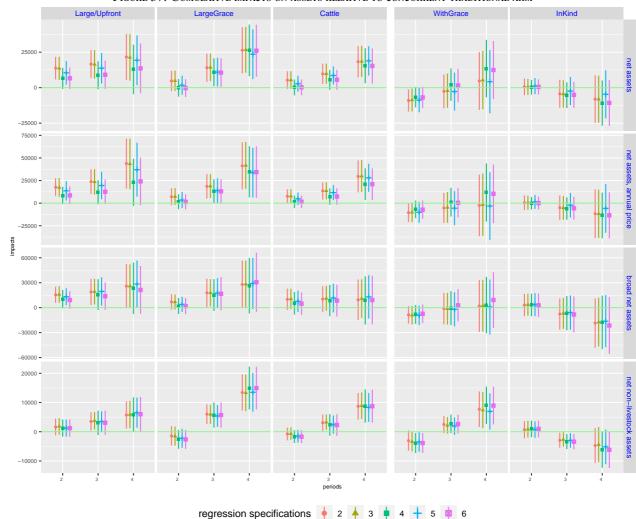


FIGURE 37: CUMULATIVE IMPACTS ON ASSETS RELATIVE TO CONCURRENT TRADITIONAL ARM

Note: Cumulative impacts on various net asset measures. Large/Upfront, Large grace, Cattle are impacts relative to Traditional arm. WithGrace and InKind are the impacts of respective marginal functional attributes. Panels show cumulative impacts of respective arm or attributes k relative to tradiotional arm which are obtained by 2nd period = b_{2k} , 3rd period = $b_{2k} + b_{3k}$, 4th period = $b_{2k} + b_{4k}$ in the estimating equation $y_{it} = b_1y_{i1} + b_2 + b_2'\mathbf{d}_i + b_3c_{3t} + b_3'\mathbf{d}_ic_{3t} + b_4c_{4t} + b_4'\mathbf{d}_ic_{4t} + e_{it}$, t = 2, 3, 4, where y_{it} is the outcome measure of member i in period t, \mathbf{d}_i is a vector of arms or functional attributes, c_{3t} , c_{4t} are indicator variables of period 3 and 4. Bars show 95% confidence intervals using cluster robust standard errors., Asset values are expressed in BDT. Net assets=total assets - debts. Debts include outstanding loaned amount of the experiment. Total assets use items observed in all 4 rounds of household surveys. Net non livestock assets=net assets-livestock asset values. Number of cattle is a headcount of cattle holding.

Results of land holding is similar to net assets, as it is a part of net assets, but the gap widens as period progresses. This is seen in the point estimates of non-traditional arms that are positive, yet most of estimates are imprecise and have their 95% confidence intervals crossing zero. Among all three assets, land holding may be most reliable indicator of wealth for fewer missingness. Net assets are defined as total assets less debt outstanding, yet we have smaller coverage of asset items in the first period which inflates the increasing trend.[†]

[†] This change in coverage is common to all arms, and given randomisation, this should not affect identification of imapets by ANCOVA estimator as it is captured in the estimates of traditional arm, although it adds an extra noise.

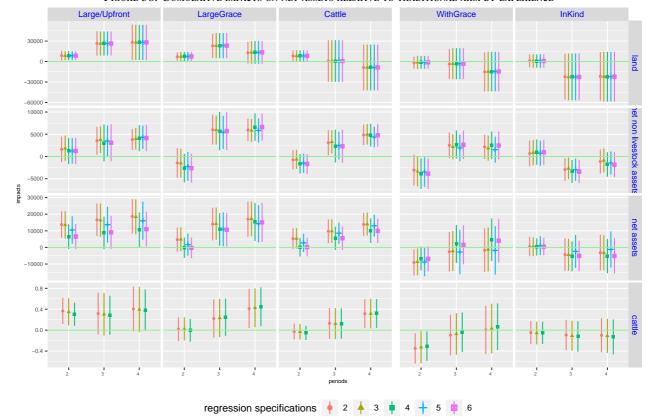


FIGURE 38: CUMULATIVE IMPACTS ON NET ASSETS RELATIVE TO TRADITIONAL ARM BY EXPERIENCE

Note:

Asset values are expressed in BDT. Net assets=total assets - debts. Debts include outstanding loaned amount of the experiment. Total assets use items observed in all 4 rounds of household surveys. Net non livestock assets=net assets-livestock asset values. Number of cattle is a headcount of cattle holding. Adi is a group who has an experience of lease-in cattle contract at the baseline, Own is a group who holds cattle at the baseline, and None are all other individuals. There are 141 members who owned cattle at the baseline, 112 members who ever practiced Adi at the baseline, and 523 members who have no experience in cattle rearing.

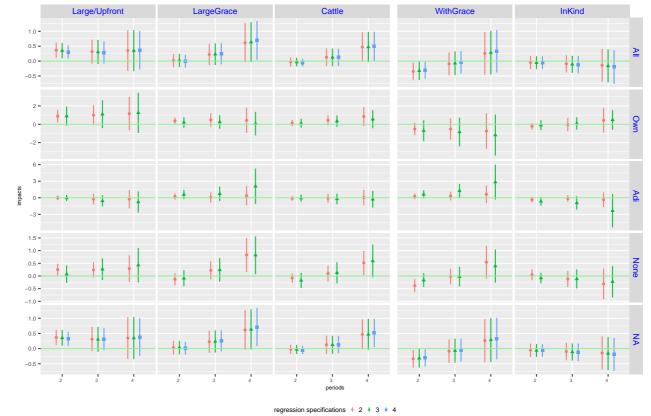


FIGURE 39: CUMULATIVE IMPACTS ON CATTLE HOLDING RELATIVE TO TRADITIONAL ARM BY EXPERIENCE

Note:

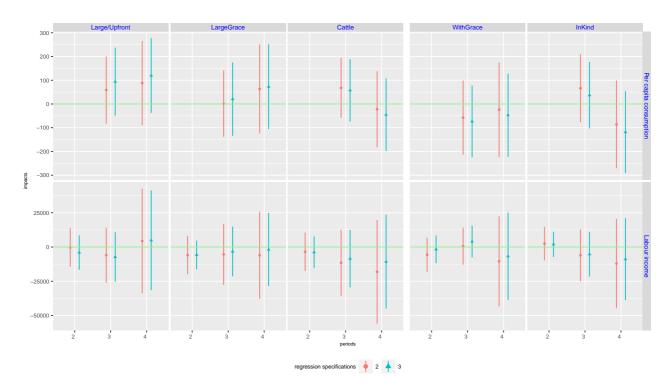
Asset values are expressed in BDT. Net assets=total assets - debts. Debts include outstanding loaned amount of the experiment. Total assets use items observed in all 4 rounds of household surveys. Net non livestock assets=net assets-livestock asset values. Number of cattle is a headcount of cattle holding. Adi is a group who has an experience of lease-in cattle contract at the baseline, Own is a group who holds cattle at the baseline, and None are all other individuals. There are 141 members who owned cattle at the baseline, 112 members who ever practiced Adi at the baseline, and 523 members who have no experience in cattle rearing.

V.4 Project cycle

There are issues with the project cycle data.

- There are 94 members who report multiple entries (rows). This is the intended way of reporting multiple projects. However, 12 members report IGAs (iga1_1st, etc.) that do not match with respective project_type. Among all members, project_type is less in details ("cow") and IGAs are more detailed ("cow, trade, goat"). In the majority cases, the contents in the former is a subset of the contents of the latter. In other cases, they simply differ: There are 94 unmatching members of which 59 with NAs in project_type. Given that there are (a relatively small number of) 35 cases of nonNAs in project type and detailed IGAs, I will use information only in igaX_Y and ignore project_type.
- There is one piece of information that may not to be dropped with project_type where 0 members report ox in their project while IGAs report cows. I will overwrite cow as IGA with ox.
- igaX_Y supposedly indicates X-th income generating activity in Y-th most recent project. But year_Y shows that igaX_Y is Y-th oldest project. year_2nd (all 2014), year_3rd (all 2015) are reported only for traditional indicates that year_Y refers to disbursement years, not necessarily the project starting year. This is further supported by no year_2nd is recorded for other arms. Information exists in iga1_1st, iga1_2nd, iga1_3rd (most, 2nd most, 3rd most recent igas), but not in iga2_1st, iga2_2nd, iga2_3rd, iga3_1st, iga3_2nd, iga3_3rd.

FIGURE 40: CUMULATIVE EFFECTS ON LABOUR INCOME AND PER CAPITA CONSUMPTION



Source: Constructed from ANCOVA estimation results Table 32, Table 33, Table 27, Table 28.

Note: Style and placement of panels follow the Figure \ref{igure} . Large/Upfront, Large grace, Cattle are impacts relative to Traditional arm. WithGrace and InKind are the impacts of respective marginal functional attributes. Panels show cumulative impacts of respective arm or attributes k relative to tradiotional arm which are obtained by 2nd period = b_{2k} , 3rd period = b_{2k} + b_{3k} , 4th period = b_{2k} + b_{4k} in the estimating equation y_{it} = b_1y_{i1} + b_2 + b_2' d_i + b_3c_{3t} + b_3' d_i c_{3t} + b_4c_{4t} + b_4' d_i c_{4t} + e_{it} , t = 2, 3, 4, where y_{it} is the outcome measure of member i in period t, d_i is a vector of arms or functional attributes, c_{3t} , c_{4t} are indicator variables of period 3 and 4. Bars show 95% confidence intervals using cluster robust standard errors. Per capita consumption is a total of food, hygiene, social, and energy expenditure divided by the number of household members, expressed as the annualied values in BDT. In-kind consumption of home made products is imputed at median prices. Labour income is labour incomes of household in 1000 BDT units.

	Proje	ct				
IGAs	COW	ОХ	<pre>goat/sheep</pre>	business/trade	land	sum
2 cows,goat	0	0	2	0	0	2
2 cows,land	6	0	0	0	0	6
2 cows, trade	5	0	0	3	0	8
2 goats, cow	3	0	4	0	0	7
2 goats, trade	0	0	3	2	0	5
2 trades, cow	2	0	0	2	0	4
2 trades, goat	0	0	0	1	0	1
COW	326	0	0	0	0	326
cow,goat,land	1	0	0	0	0	1
cow,goat,trade	4	0	7	2	0	13
cow,land,nutcor	n 9	0	0	0	0	9
cow,land,trade	3	0	0	0	0	3
land	0	0	0	0	2	2
ОХ	0	1	0	0	0	1
trade	0	0	0	1	0	1
sum	359	1	16	11	2	389

			Proje	ct					
I	GAs		COW	ОХ	<pre>goat/sheep</pre>	business/trade	land	<na></na>	sum
	2	cows,goat	0	3	0	0	0	0	3
	2	cows,land	0	4	1	0	0	0	5

2 cows, nutcorn	0	1	0	0	0	0	1	
2 cows, trade	0	5	3	0	0	3	11	
2 goats,cow	0	5	0	0	0	0	5	
2 goats, trade	2	1	0	0	0	7	10	
2 trades,cow	0	0	3	0	0	4	7	
2 trades,goat	0	1	0	0	0	2	3	
COW	0	179	5	1	1	33	219	
cow,goat,trade	0	5	0	0	0	1	6	
cow,land,nutcorn	0	8	0	0	0	1	9	
cow,land,trade	0	1	0	0	0	2	3	
goat	0	0	0	0	0	1	1	
house	0	0	0	0	0	1	1	
land	4	1	0	0	0	4	9	
OX	1	0	0	0	0	0	1	
trade	6	5	1	0	0	0	12	
sum	13	219	13	1	1	59	306	

```
year_2nd
year_1st 0 2014
2013 27 95
```

```
year_3rd
year_1st 0 2015
2013 27 95
```

```
BStatus
                                               IGAs
                                                       Project
         Arm
traditional: 0
                 borrower:27
                                2 cows,land
                                               : 8
                                                       cow :14
large
                                2 cows, nutcorn : 1
                                                       ox :12
large grace:22
                                cow,land,nutcorn:18
                                                       NA's: 1
COW
           : 0
NA's
           : 5
```

```
Arm
                     BStatus
                                            IGAs
                                                               Project
                                                                          year_2nd
                                                                          2014:95
traditional:95
                 borrower:95
                                2 cows, trade :19
                                                                   : 21
                                                     COW
                                cow,goat,trade:19
                                                    ОХ
                                                                   :22
                                                     goat/sheep
                                2 goats, trade :15
                                                                   :23
                                2 goats, cow
                                              :12
                                                    business/trade:10
                                                    NA's
                                2 trades, cow :11
                                                                  :19
                                cow,land,trade: 6
                                (Other)
                                              :13
year_3rd
2015:95
```

```
Arm
                      BStatus
                                                IGAs
                                                        Project
                                                                   year_3rd
                                 2 cows,land
                                                 : 8
                                                                   0:27
large grace:22
                  borrower:27
                                                        cow :14
NA's
           : 5
                                 2 cows, nutcorn
                                                 : 1
                                                        ox :12
                                 cow,land,nutcorn:18
                                                        NA's: 1
```

Tabulation of loan projects shows that there is no member invested all in goats and goats are not the members' main assets. Among the 85 tradtional loan recipients who report their loan projects, there are 27 members who report to have purchased a goat twice and 15 who have invested in a retail trade twice. It is also puzzling that, among traditional arm members, 27 report to have invested in a cow twice, which seems unlikely with their purchasing powers.

```
2 cows,goat 2 cows,land 2 cows,trade 2 goats,cow 2 goats,trade 2 trades,cow 5 3 19 12 15
```

```
2 trades,goat cow,goat,land cow,goat,trade cow,land,trade
4 1 19 6
```

Number of reported IGAs by arm shows that traditional members report a project everytime they receive a loan, hence all have 3 IGAs. Interestingly, none has three goats.

```
1 3 sum
traditional 0.00 100.00 95
large 100.00 0.00 216
large grace 88.78 11.22 196
cow NaN NaN 0
<NA> 97.34 2.66 188
```

```
2 cows,goat 2 cows,land 2 cows,trade 2 goats,cow 2 goats,trade
2 trades,cow
5 3 19 12 15
11
2 trades,goat cow,goat,land cow,goat,trade cow,land,trade
4 1 19 6
```

Goat holding size and total holding increase by the final round but the number of holders is decreasing, indicating a limited number of expansion in goat holding. Interestingly, it is only traditional arm holding that are increasing while all ther arms reduce the goat holding size.

addmargins(table0(lvo[o800==1L & tee == 1, .(Arm, Num)]))

```
Num

Arm 1 2 3 4 Sum

traditional 13 9 39 114 175

large 6 6 21 166 199

large grace 14 6 26 142 188

cattle 11 8 20 160 199

Sum 44 29 106 582 761
```

```
survey NumOwned.goatsheep NumOwned.chickenduck
                    hhid
        Arm
traditional:20 Min. : 7010103 1:116
                                        0:100
                                                          0
                                                                : 63
large :14 1st Qu.: 7021186
                                        1: 6
                                                          2
                                                                 :19
               Median : 7036864
                                        2: 7
large grace:51
                                                                :16
                                        4: 3
               Mean : 7818279
                                                          3
                                                                : 6
cattle :31
               3rd Qu.: 7096233
                                                          5
                                                                 : 5
               Max. :81710316
                                                          1
                                                          (Other): 4
NumCows ObPattern
0:104 0111: 1
1: 8
       1000:91
2: 3
       1010: 1
       1011: 0
3: 1
       1100: 8
       1110: 1
       1111:14
```

Cattle ownership at rd 1.

```
NumCows
          0 1
                    3
                       4
                          5 Sum
traditional 147 20
               6 2
                       0
                          0 175
large 156 31 8 2 2 0 199
large grace 163 25 9 1 0 1 199
cattle 167 24 7 1 0
                          0 199
         633 100 30
                          1 772
Sum
```

Cattle ownership of attriters (at round 4) at rd 1.

```
NumCows

Arm 0 1 2 3 Sum

traditional 18 1 1 0 20

large 1 0 0 0 1

large grace 3 0 0 0 3

cattle 7 2 3 1 13

Sum 29 3 4 1 37
```

Cattle ownership at rd 4

N	umCo	OWS									
Arm	0	1	2	3	4	5	6	8	9	<na></na>	Sum
traditional	2	59	30	8	2	0	0	0	0	31	132
large	0	62	67	21	3	3	2	0	1	29	188
large grace	1	60	58	11	5	1	0	1	0	24	161
cattle	1	68	61	16	2	0	0	0	0	22	170
Sum	4	249	216	56	12	4	2	1	1	106	651

	Arm	survey	N	MeanNumCow	MedianNumCow	
1:	traditional	1	175	0.217143	0	
2:	traditional	2	140	1.542169	1	
3:	traditional	3	157	1.440678	1	
4:	traditional	4	132	1.495050	1	
5:	large	1	199	0.306533	0	
6:	large	2	171	1.937008	2	
7:	large	3	187	1.784810	2	
8:	large	4	188	1.930818	2	
9:	large grace	1	199	0.256281	0	
10:	large grace	2	153	1.535088	1	
11:	large grace	3	170	1.496599	1	
12:	large grace	4	161	1.766423	2	
13:	cattle	1	199	0.206030	0	
14:	cattle	2	177	1.365517	1	
15:	cattle	3	181	1.436709	1	
16:	cattle	4	170	1.662162	2	

Last observed round.

	Last0	bser	vedF	Round	k
BStatus	1	2	3	4	sum
borrower	11	7	19	536	573
pure saver	0	0	0	0	0
individual rejection	16	3	4	66	89
group rejection	15	2	4	49	70
rejection by flood	13	1	26	0	40
sum	55	13	53	651	772

Attach 0 cattle ownership when nothing is reported.

	NumC	OWS					
Arm	0	1	2	3	4	5	sum
traditiona	11 147	20	6	2	0	0	175
large	156	31	8	2	2	0	199
large grad	e 163	25	9	1	0	1	199
cattle	167	24	7	1	0	0	199
sum	633	100	30	6	2	1	772

Number of cattle in round 4.

	NumCo	WS								
Arm	0	1	2	3	4	5	6	8	9	sum
							• • •			

```
traditional 33 59 30
                 8 2 0 0
                                 0 132
                    3
         29 62
               67
                  21
                        3
                           2
                                 1 188
large
large grace 25 60 58 11 5
                             1
                        1
                           0
                                 0 161
cattle 23 68 61 16 2 0 0 0
                                 0 170
sum 110 249 216 56 12 4 2 1 1 651
```

There are 5 members in cattle arm who report not to own cattle at least once after receiving cattle. Total holding size and holders may be too low. Below gives holding size of cattle among nonattriting members in cattle arm.

```
NumOwned.cowox
survey 0 1 2 3 4 <NA> Sum
1 150 22 4 0 0 0 176
2 2 93 28 10 1 29 163
3 2 97 36 9 3 22 169
4 1 68 61 16 2 22 170
```

Members of traditional arm have the smallest cattle holding. In Table 138, ANOVA and Kruskal-Wallis tests indicate that means of cattle holding are different between arms in 2017. Tukey HST gives test results that account for multiple testing and shows that there is a difference between traditional and large, and other arms are in between yet their standard errors are too large to be considered statistically different from both extremes.

```
NumCows
Arm
           0
                  2
                     3
                        4
                           5
                              6
 Traditional 33 59 30
                     8
                        2
                           0
                              0
                                 0
                                     0 132
           29 62 67
                    21 3
                          3 2
                                   1 188
 Large
                                 0
 Large grace 25 60 58 11 5 1 0 1 0 161
 Cattle
          23 68 61 16 2 0 0 0 170
 sum
          110 249 216 56 12 4 2 1 1 651
```

Cattle arm: add a cow for borrowers if NumCows is NA or zero in rd 2 onwards.

```
NumCows
Arm
          0 1
                2
                   3
                       4
                          5
                             6
                                8
                                   9 sum
 Traditional 33 59 30
                   8 2 0 0 0 0 132
          29 62 67 21 3 3 2 0
                                 1 188
 Large
 Large grace 25 60 58 11 5 1 0 1
                                  0 161
                      2
                           0
 Cattle
          11 80 61
                        0
                              0
                   16
                                  0 170
          98 261 216
                  56 12 4 2 1 1 651
```

```
Margins computed over dimensions in the following order:
1: Arm
2: groupid
```

```
groupid
       70203 70206 70210 70538 70962 sum
            0
                0
Traditional 0
                     0
          1
              0
                  0
                     1
                         4
                            6
Large
                 1
                     0
                          0 2
Large grace 0
             1
Cattle
         0
             0
                  0
                     0
                        0 0
         1 1 1 1 4
sum
```

TABLE 138: Anova results for cattle holding equality by arm

TABLE 130. TINOV	(1)	(2)	(3)	(4)	(5)
Tests	rd4	rd4 edited	rd3	rd2	rd1
a	b	c	d	e	f
ANOVA Kruskal-Wallis Tukey HST	(0.08) (0.09)	(0.05) (0.03)	(0.13) (0.39)	(0.02) (0.14)	(34.90) (42.63)
Large-Traditional	0.4890 (0.03)	0.4890 (0.03)	0.4252 (0.05)	0.5243 (0.01)	0.0894 (48.58)
Large grace-Traditional	0.3592 (2.16)	0.3592 (1.88)	0.2113 (22.47)	0.2295 (24.50)	0.0391 (92.48)
Cattle-Traditional	0.3031 (6.80)	0.3737 (1.16)	0.1713 (39.54)	0.2044 (31.63)	-0.0111 (99.80)
Large grace-Large	-0.1299 (66.68)	-0.1299 (65.50)	-0.2139 (18.17)	-0.2948 (5.85)	-0.0503 (84.19)
Cattle-Large	-0.1859 (35.07)	-0.1153 (72.52)	-0.2539 (7.14)	-0.3200 (2.45)	-0.1005 (34.97)
Cattle-Large grace	-0.0560 (96.37)	0.0145 (99.93)	-0.0400 (98.21)	-0.0251 (99.64)	-0.0503 (84.19)

Note:

Each column uses respective year cattle ownership information. For ANOVA and Kruskal-Wallis, each entry indicates p values. ANOVA tests for the null of equality of means under normality. Kruskal-Wallis tests for the null of no stochastic dominance among samples without using the normality assumption. Tukey's honest significant tests show difference in means and p values in parenthesis that account for multiple testing under normality. In column 2, we edited data by assigning 1 to members of cattle arm at dates after disbursement if reported holding is NA or zero.

_										
	1	2	3	4	5	6	7	sum	total	HoldingSize
-	39	44	14	33	3	6	1	140	359	2.56
2	2 0	0	0	0	0	0	0	0	0	NaN
3	8 0	0	0	0	0	0	0	0	0	NaN
4	1 0	0	0	0	0	0	0	0	0	NaN

Warning in `[.data.table`(lvocL, , `:=`(Livestock, lvstkName[k])): Invalid .internal.self

```
InitialOwner

Arm 0 1 Sum

Traditional 147 28 175

Large 156 43 199

Large grace 163 36 199

Cattle 167 32 199

Sum 633 139 772
```

'arning in `[.data.table`(lvocL2, , `:=`(Livestock, lvstkName[k])): Invalid .int<mark>ernal.self</mark>

Given the misreporting in large loans arms, the power may get affected and only large seems to stand out from all other arms, while large grace, cattle are not different in terms of cattle ownership against traditional.

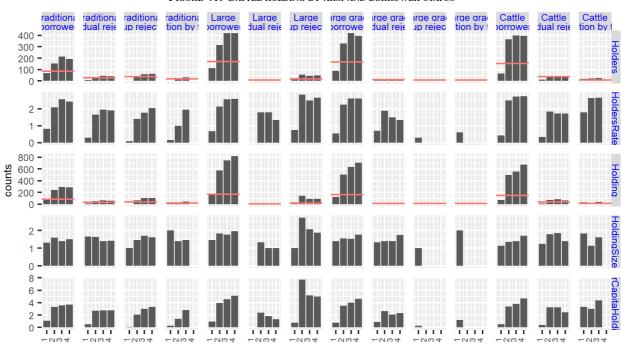


Figure 41: Cattle holding by arm and borrower status

Note: Numbers of loan recipients are 85, 170, 166, 152, numbers of reported livestock holding are 85, 170, 166, 152 for traditional, large, large grace, cattle arms, respectively. Red horizontal lines indicate number of loan recipients.

round

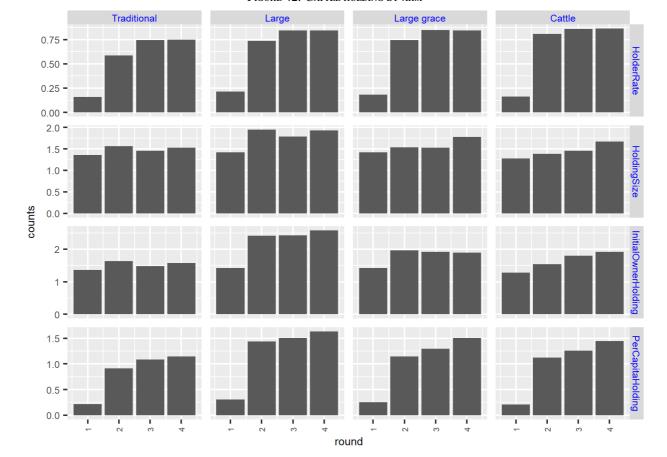


FIGURE 42: CATTLE HOLDING BY ARM

Note: Numbers of survey participants are 175, 199, 199, 199 for traditional, large, large grace, cattle arms in round 1, respectively. Holders rates are the number of cattle owners per arm size, holding size is average holding per owner, initial owner holding are average holding per owner who held cattle at baseline, and per capita holding is cattle owned per arm member. Initial owner holding and holder rates show impacts on the intensive and extensive margins, respectively. Per capita holding shows the total impacts on cattle holding.

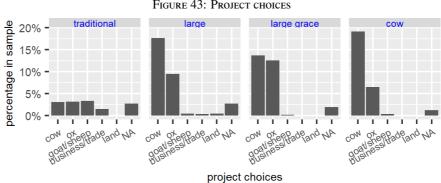
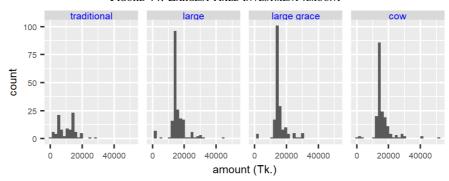


Figure 43: Project choices

Source: Survey data.

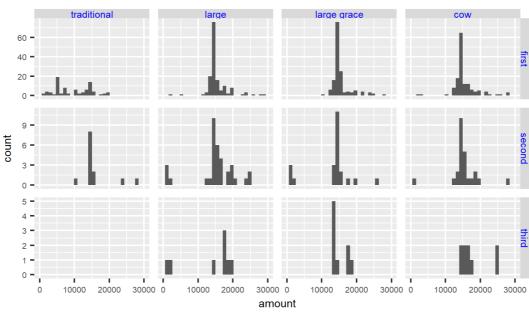
Ratios of reported project choices using the lending to total number of projects in InitialSample. NAs include nonresponse Note: to the question and dropped out individuals.

FIGURE 44: LARGEST FIXED INVESTMENT AMOUNT



Note: Reported largest one-off investment amounts of the lending.

FIGURE 45: FIXED INVESTMENT SEQUENCE AND AMOUNTS



Source: Survey data.

Note: Reported largest one-off investment amounts of the lending. Top figure is the first investments reported by year, bottom figure is later investments reported by the sequence of investment projects.

References

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