

Appendix

A. Focus Groups

Quotes from focus groups discussions about input delays:

- “Because the input did not arrive on time, we couldn’t apply it to increase our production hence we couldn’t make money. So, this also resulted in the fact that some people were also not able to pay the loan. There are some people whose primary work is cultivating cocoa and they don’t do any other work. So, because it couldn’t come on time, they were not able to increase their crop production.”
- “Most of the problem that happens comes from your end. The input doesn’t come on time. Just take a look at my hands. If I had this input, I would have done a lot of work with it. I have cultivated cocoa, cassava and plantain. All this is done by one person. Sometimes I had to use my own money to buy inputs but I believe if your input had come on time all the efforts and energy I use will be minimal and I will not go and labor for others to get money to continue my crop production.”
- “If I should receive the input now, the kind of work I will do with it will not be small. Because I have not received the input, it has really slowed my work. I would have sprayed all the weeds around the cocoa farm but because I don’t have it, the farm has been left unattended.”
- “The women who received the inputs had a great farming season but those whose inputs were delayed or did not come did not have a successful farming season. There were those women who had worked hard and cleared the land wanting to plant plantain, cocoyam, etc. and were waiting for the inputs to apply on the farm but the inputs were delayed so they didn’t even have the strength to continue.”
- “Those who did not get the input credit went out for loans on their own to purchase inputs. Those of us who received did not receive on time. For instance, if I plan to apply fertilizer on my farm this week, I have to make sure I am able to get the fertilizer for application. Based on the promise, I had to wait to hope to receive the input, but the inputs did not arrive as promised. We must also note that, these input applications are done routinely, a delay in fertilizer application on a crop can affect its market price and in turn one’s revenue and vice versa. What will make us happy joining this initiative is when we receive the inputs on time. After all, farmers cannot refuse the delayed inputs but unfortunately, when you record low yield as a result of that, you would still have to pay back the loan. So if you promise to bring me fertilizer and do not bring it at the appropriate time for usage, you must as well not bring it at all.”

Table A1.1: LATE Estimates and Heterogeneous Effects by Farmer Experience - Main Outcomes

	LATE Estimates	Farmer Experience	
	LATE Full Sample (1)	ITT (2)	ITT x High Exper. (3)
Dependent Variable			
Panel A: Farm Financial Outcomes			
Total Farm Input Expenditures	122.6 (230.7)	65.0 (139.6)	181.3 (184.8)
Market Value of Crops Produced	480.6 (691.0)	285.9 (325.5)	-535.4 (559.8)
Crop Sales	483.8 (680.9)	266.6 (315.2)	-574.1 (547.8)
Crop Profits	342.3 (691.7)	194.0 (336.8)	-674.4 (562.9)
Panel B: Farm Land Use			
Sole Crops Area	-0.81 (0.90)	0.22 (0.28)	-0.81 (0.69)
Mixed Crops Area	0.48 (0.70)	0.64 (0.38)	-0.05 (0.54)
Crop Diversification	-0.00 (0.06)	0.04 (0.04)	-0.02 (0.05)
Panel C: Household Finances			
Money Owed to Respondent	230.3 (147.7)	164.2* (86.5)	-31.2 (121.9)
Household Savings	-1.6 (211.6)	210.6 (129.9)	-195.5 (180.5)
Panel D: Business Outcomes			
Owning a Business (Indicator)	-0.01 (0.07)	-0.10*** (0.04)	0.11** (0.05)
Investment into Business	54.6 (129.5)	-67.9 (70.2)	24.6 (108.7)
Income from Business	191.5* (109.9)	-29.4 (74.2)	-61.4 (100.0)
Panel E: Experience with Credit			
Credit Received -- Banks	87.2 (148.4)	-18.5 (120.8)	115.0 (148.8)
Credit Received -- Microfinance	45.9 (29.7)	12.3 (10.4)	25.3 (18.5)
Credit Received -- Moneylender	55.7 (83.6)	-72.8* (38.1)	92.4 (85.0)
Credit Received -- Informal	15.5 (77.9)	-7.6 (36.3)	67.0 (61.5)
Perceived Creditworthiness (Index)	0.06 (0.14)	0.08 (0.08)	-0.03 (0.11)

Panel F: Health and Well Being

Food Security (Index)	0.08 (0.13)	0.01 (0.08)	-0.08 (0.11)
Social Ladder Position, Absolute Wellbeing	0.68*** (0.15)	0.19** (0.08)	-0.15 (0.11)
Psychological Distress (Index)	0.08 (0.14)	-0.03 (0.08)	0.01 (0.12)
Subjective Wellbeing (Index)	0.10 (0.14)	0.01 (0.08)	-0.03 (0.11)

N = 1,335 (Baseline: 1,372, Endline: 1,335, Attrition Rate: 2.7%). Baseline mean values are missing for questions asked only at endline (and not at baseline). See Data Appendix for definitions of all variables. *, **, *** refer to statistical significance at 1%, 5%, and 10% respectively.

Table A1.2: LATE and Heterogeneous Effects by Farmer Experience - Composition of Input Expenditure

Dependent Variable	LATE Estimates		Farmer Experience	
	LATE Full Sample	ITT	ITT	ITT x High Exper.
	(1)	(2)	(3)	(3)
Fertilizers	134.0* (75.6)	-38.5 (40.6)	128.7** (57.2)	
Herbicides and Weedicides	50.7 (35.6)	8.5 (18.2)	-5.4 (29.4)	
Insecticides	89.2* (46.9)	-3.0 (30.2)	77.2* (39.7)	
Land Rental	1.7 (52.8)	88.1*** (27.6)	-84.0** (40.8)	
Hired Labor	-27.4 (91.3)	16.3 (63.9)	4.8 (81.3)	
Hired Tractor	12.6 (11.1)	8.3* (4.6)	-2.7 (7.5)	
Hired Animals	5.4 (3.4)	0.41 (2.0)	0.79 (2.2)	
Seeds	-74.8 (60.3)	-10.2 (35.7)	25.8 (47.1)	
Rented Equipment	5.6 (19.3)	3.7 (10.1)	5.3 (14.1)	
Irrigation and Registration Fees	-27.4 (23.0)	10.8 (11.1)	14.0 (15.3)	
Other Inputs	24.5 (16.5)	6.2 (8.7)	1.3 (12.9)	

N = 1,335 (Baseline: 1,372, Endline: 1,335, Attrition Rate: 2.7%). Baseline mean values are missing for questions asked only at endline (and not at baseline). See Data Appendix for definitions of all variables. *, **, *** refer to statistical significance at 1%, 5%, and 10% respectively.

Table A1.3: LATE and Heterogeneous Effects by Farmer Experience - Experience with Credit

Dependent Variable	LATE Estimates	Farmer Experience	
	LATE Full Sample	ITT	ITT x High Exper.
	(1)	(2)	(3)
Credit Applied for -- Banks	101.0 (192.1)	-55.6 (134.9)	175.9 (179.4)
Credit Applied for -- Microfinance	35.8 (31.0)	8.9 (13.5)	16.7 (24.5)
Get Loan at Oth. Institution (Indicator)	0.02 (0.07)	0.02 (0.04)	0.02 (0.06)
Get Better Interest Rate (Indicator)	0.06	0.05	-0.02

N = 1,335 (Baseline: 1,372, Endline: 1,335, Attrition Rate: 2.7%). Baseline mean values are missing for questions asked only at endline (and not at baseline). See Data Appendix for definitions of all variables. *, **, *** refer to statistical significance at 1%, 5%, and 10% respectively.

Table A2: Additional ITT Estimates of Impact on Experience with Credit

Dependent Variable	Base Spec	Timeliness of Loans		Gender		Means	
	ITT Full Sample	ITT	ITT x Timely Loan	ITT	ITT x Female	Baseline: All	Endline: Control
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Credit Applied for -- Banks	33.7 (87.3)	27.5 (92.3)	-79.7 (465.5)	-19.8 (110.3)	196.2 (169.1)	295.7 (1226.0)	407.7 (1755.5)
Credit Applied for -- Microfinance	17.3 (12.2)	19.1 (14.0)	3.3 (23.6)	12.7 (15.3)	17.1 (23.5)	18.6 (196.8)	11.6 (171.6)
Get Loan Elsewhere (Ind.)	0.03 (0.03)	0.03 (0.03)	-0.00 (0.10)	0.04 (0.03)	-0.05 (0.06)	-	0.51 (0.50)
Get Better Rate Elsewhere (Ind.)	0.04 (0.03)	0.05* (0.03)	-0.09 (0.10)	0.06** (0.03)	-0.08 (0.06)	-	0.32 (0.47)

N = 1,335 (Baseline: 1,372, Endline: 1,335, Attrition Rate: 2.7%). Baseline mean values are missing for questions asked only at endline (and not at baseline). Timely loan regressions include controls for age, farm input expenditures, and business ownership, the three variables that predict timely loan takeup with p-value<0.05 in Table 1. See Data Appendix for definitions of all variables. *, **, *** refer to statistical significance at 1%, 5%, and 10% respectively.

Table A3.1: Results with Timely Loans and Gender Interactions in the Same Spec - Main Outcomes

Dependent Variable	Timely Loans and Gender Interactions			Means	
	ITT	ITT x Timely Loan	ITT x Female	Baseline: All	Endline: Control
	(1)	(2)	(3)	(4)	(5)
Panel A: Farm Financial Outcomes					
Total Farm Input Expenditures	218.2* (116.6)	288.6 (285.9)	-390.8** (186.4)	1391.9 (1474.3)	1556.2 (1459.4)
Market Value of Crops Produced	-401.5 (373.4)	1444.1** (682.01)	573.0 (546.6)	4057.4 (7483.7)	2258.1 (4945.3)
Crop Sales	-394.4 (366.0)	1312.5** (665.0)	506.2 (535.1)	3809.3 (6746.8)	2172.9 (4840.8)
Crop Profits	-608.8 (374.1)	1198.4* (736.2)	941.0* (563.2)	2665.5 (7261.2)	702.0 (4787.8)
Panel B: Farm Land Use					
Sole Crops Area	-0.34 (0.45)	0.52 (0.86)	-0.07 (0.66)	3.9 (6.4)	2.6 (5.5)
Mixed Crops Area	0.48 (0.36)	0.35 (0.75)	0.30 (0.51)	3.3 (4.3)	3.3 (4.2)
Crop Diversification	0.05 (0.03)	0.15* (0.09)	-0.12** (0.05)	0.85 (0.36)	0.74 (0.44)
Panel C: Household Finances					
Money Owed to Respondent	164.6** (77.7)	152.2 (152.7)	-163.5 (120.1)	462.9 (1030.7)	438.2 (1092.4)
Household Savings	104.6 (117.4)	-263.1 (292.4)	-52.6 (168.5)	483.6 (1072.8)	746.4 (1737.9)
Panel D: Business Outcomes					
Owning a Business (Indicator)	-0.04 (0.03)	-0.12 (0.11)	0.01 (0.06)	0.50 (0.50)	0.47 (0.50)
Investment into Business	-97.9 (66.4)	63.9 (199.1)	67.6 (115.4)	475.8 (1327.6)	395.3 (947.0)
Income from Business	-123.8* (69.6)	32.3 (138.3)	198.1** (98.9)	540.6 (1158.0)	348.2 (916.4)
Panel E: Experience with Credit					
Credit Received -- Banks	-4.6 (102.0)	108.0 (180.3)	108.0 (131.7)	262.3 (1056.3)	325.5 (1425.1)

Credit Received -- Microfinance	26.2** (12.2)	-5.7 (21.8)	4.9 (20.4)	16.5 (177.9)	2.5 (47.9)
Credit Received -- Moneylender	-57.8 (61.3)	71.6 (97.0)	71.4 (72.1)	57.0 (339.1)	109.8 (826.1)
Credit Received -- Informal	61.5 (43.1)	-109.0 (68.1)	-106.3* (54.7)	167.1 (718.9)	64.2 (261.6)
Perceived Creditworthiness (Index)	0.12* (0.07)	-0.07 (0.21)	-0.15 (0.13)	-	-0.05 (0.98)
Panel F: Health and Well Being					
Social Ladder Position	0.17** (0.07)	0.02 (0.19)	-0.28** (0.13)	-	-0.07 (0.94)
Social Ladder Position, Absolute Wellbeing	0.03 (0.07)	-0.30 (0.21)	-0.03 (0.13)	-	0.01 (0.98)
Food Security (Index)	-0.04 (0.07)	-0.16 (0.21)	-0.01 (0.13)	0.0 (1.0)	0.0 (0.99)
Psychological Distress (Index)	-0.03 (0.07)	0.11 (0.19)	-0.01 (0.13)	-	0.02 (0.98)

N = 1,335 (Baseline: 1,372, Endline: 1,335, Attrition Rate: 2.7%). Baseline mean values are missing for questions asked only at endline (and not at baseline). Timely loan regressions include controls for age, farm input expenditures, and business ownership, the three variables that predict timely loan takeup with p-value<0.05 in Table 1. See Data Appendix for definitions of all variables. *, **, *** refer to statistical significance at 1%, 5%, and 10% respectively.

Table A3.2: Results with Timely Loans and Gender Interactions in the Same Spec - Additional Outcomes for Composition of Input Expenditure

Dependent Variable	Timely Loans and Gender Interactions			Means	
	ITT	ITT x Timely Loan	ITT x Female	Baseline: All	Endline: Control
	(1)	(2)	(3)	(4)	(5)
Fertilizers	26.3 (36.2)	165.1* (91.1)	-76.6 (57.7)	191.7 (449.8)	281.8 (449.1)
Insecticides	49.1** (24.0)	65.7 (55.4)	-103.1** (45.2)	231.8 (386.3)	208.4 (316.6)
Herbicides and Weedicides	8.9 (19.9)	35.2 (42.8)	-38.2 (31.8)	125.4 (183.5)	148.4 (262.4)
Land Rental	52.0* (30.1)	-37.5 (57.9)	-31.6 (34.1)	106.7 (404.5)	81.9 (306.7)
Hired Labor	22.1 (43.4)	52.1 (111.7)	-65.8 (99.7)	403.8 (526.2)	494.7 (718.0)
Hired Tractor	9.2* (5.2)	-1.7 (5.0)	-8.5 (6.4)	2.5 (29.5)	9.6 (51.0)
Hired Animals	0.52 (1.5)	-1.0 (1.7)	2.4 (3.0)	0.16 (4.3)	0.8 (14.3)
Seeds	0.24 (31.6)	8.6 (63.8)	-2.6 (41.0)	208.4 (351.5)	225.8 (375.7)
Rented Equipment	16.1* (9.0)	-8.1 (18.4)	-31.1** (14.2)	62.8 (145.6)	41.3 (97.5)
Irrigation and Registration Fees	26.8** (11.1)	-18.0 (12.7)	-22.9* (12.9)	34.0 (143.6)	31.9 (90.6)
Other Inputs	10.0 (9.2)	11.7 (14.6)	-15.5 (12.5)	24.7 (133.3)	31.5 (99.1)

N = 1,335 (Baseline: 1,372, Endline: 1,335, Attrition Rate: 2.7%). Baseline mean values are missing for questions asked only at endline (and not at baseline). Timely loan regressions include controls for age, farm input expenditures, and business ownership, the three variables that predict timely loan takeup with p-value<0.05 in Table 1. See Data Appendix for definitions of all variables. *, **, *** refer to statistical significance at 1%, 5%, and 10% respectively.

Table A3.3: Results with Timely Loans and Gender Interactions in the Same Spec - Additional Outcomes for Experience with Credit

Dependent Variable	Timely Loans and Gender Interactions			Means	
	ITT	ITT x Timely Loan	ITT x Female	Baseline: All	Endline: Control
	(1)	(2)	(3)	(4)	(5)
Credit Applied for -- Banks	-23.1 (117.5)	-78.8 (464.4)	186.8 (164.6)	295.7 (1226.0)	407.7 (1755.5)
Credit Applied for -- Microfinance	14.4 (16.6)	3.2 (23.8)	17.5 (23.5)	18.6 (196.8)	11.6 (171.6)
Get Loan Elsewhere (Ind.)	0.04 (0.03)	-0.00 (0.10)	-0.06 (0.06)	-	0.51 (0.50)
Get Better Rate Elsewhere (Ind.)	0.07** (0.03)	-0.09 (0.10)	-0.08 (0.06)	-	0.32 (0.47)

N = 1,335 (Baseline: 1,372, Endline: 1,335, Attrition Rate: 2.7%). Baseline mean values are missing for questions asked only at endline (and not at baseline). Timely loan regressions include controls for age, farm input expenditures, and business ownership, the three variables that predict timely loan takeup with p-value<0.05 in Table 1. See Data Appendix for definitions of all variables. *, **, *** refer to statistical significance at 1%, 5%, and 10% respectively.

Table A4: Multiple Hypotheses Tests

	Unadjusted p-values (1)	Holm adjusted p-values (2)	Westfall-Young adjusted p-values (3)	FDR sharpended q-values (4)
Main Outcomes (Table 2)				
Panel A: Farm Financial Outcomes				
Total Farm Input Expenditures	0.08	0.17	0.16	0.45
Market Value of Crops Produced	0.97	0.98	0.98	1.00
Crop Sales	0.86	0.90	0.91	1.00
Crop Profits	0.54	0.65	0.66	1.00
Panel B: Farm Land Use				
Sole Crops Area	0.48	0.48	0.51	0.46
Mixed Crops Area	0.03	0.07	0.09	0.10
Crop Diversification	0.28	0.47	0.51	0.40
Panel C: Household Finances				
Money Owed to Respondent	0.01	0.02	0.04	0.03
Household Savings	0.20	0.20	0.21	0.11
Panel D: Business Outcomes				
Owning a Business (Indicator)	0.08	0.22	0.23	0.34
Investment into Business	0.31	0.33	0.40	0.34
Income from Business	0.23	0.38	0.40	0.34
Panel E: Experience with Credit				
Credit Received -- Banks	0.58	0.59	0.81	0.87
Credit Received -- Microfinance	0.01	0.17	0.15	0.04
Credit Received -- Moneylender	0.52	0.79	0.81	0.87
Credit Received -- Informal	0.39	0.79	0.81	0.87
Perceived Creditworthiness (Index)	0.19	0.55	0.62	0.60
Panel F: Health and Wellbeing				
Social Ladder Position, Absolute Wellbeing	0.04	0.15	0.16	0.22
Food Security (Index)	0.52	0.88	0.88	1.00
Psychological Distress (Index)	0.71	0.92	0.92	1.00
Subjective Well Being (Index)	0.93	0.93	0.92	1.00
Input Expenditure Outcomes (Table 3)				
Fertilizers	0.33	0.84	0.90	0.53
Insecticides	0.07	0.40	0.45	0.21
Herbicides and Weedicides	0.69	0.91	0.94	0.94
Land Rental	0.03	0.27	0.30	0.21
Hired Labor	0.62	0.94	0.94	0.94
Hired Tractor	0.06	0.41	0.45	0.21
Hired Animals	0.48	0.94	0.94	0.72
Seeds	0.87	0.86	0.94	1.00
Rented Equipment	0.34	0.88	0.90	0.53
Irrigation and Registration Fees	0.02	0.16	0.21	0.21
Other Inputs	0.29	0.87	0.91	0.53

Data Appendix: Description of Variables

Total Farm Input Expenditure	Sum of expenditures (GHS) on a series of farm inputs comprising: (i) Fertilizers, (ii) Herbicides/Weedicides, (iii) Insecticides, (iv) Land Rental, (v) Hired Labor, (vi) Hired tractor, (vii) Hired animals, (viii) Seeds, (ix) Rented equipment, (x) Fees (for registration, irrigation), (xi) Other inputs.
Market Value of Crops Produced	Sum, across all crops produced, of the number of units of crop produced x market value of each unit (GHS)
Crop Sales	Sum, across all crops produced, of the number of units sold x market value of each unit (GHS)
Crop Profits	Difference (GHS) between crop sales and the total expenditure on farm inputs
Sole Crops Area	Area (acres) of land in which only a single crop is grown
Mixed Crops Area	Area (acres) of land in which mixed cropping is practiced
Crop Diversification	Indicator for whether the farmer cultivates multiple crops
Owning a Business	Indicator for whether the farmer or a household member had a business in the past 12 months
Investment into Business	Amount (GHS) invest in business in the last 30 days
Income from Business	Amount (GHS) earned from business in the last month of revenue generating activities
Credit Received -- Banks	Amount (GHS) received in loans from banks, irrespective of the amount applied for, in the past 12 months
Credit Received -- Microfinance	Amount (GHS) received in loans from microfinance institutions, irrespective of the amount applied for, in the past 12 months
Credit Received -- Moneylenders	Amount (GHS) received in loans from moneylenders in the past 12 months
Credit Received -- Informal	Amount (GHS) received in loans from other informal sources including relatives and susu groups
Perceived Creditworthiness Index	Standardized index comprising variables capturing: (i) Whether the respondent believes they would receive a loan at a different financial institution (indicator) and (ii) Whether the respondent believes they would get a better interest rate at the institution
Social Ladder, Absolute Wellbeing	Respondent's perceived position on a social ladder where the top (10) and bottom (0) represent the best and worst possible lives for the respondent
Food Security Index	Standardized index comprising variables capturing: (i) Whether anyone in the household could not afford enough food and therefore missed meals in the last 30 days, (ii) Whether anyone in the household could not afford enough meat in the last 30 days, (iii) The number of days in the last 30 days where the household consumed meat or fish
Psychological Distress Index	Standardized index comprising variables capturing: (i) How often the respondent felt nervous in the last 30 days, (ii) How often the respondent felt depressed in the last 30 days, (iii) How often the respondent felt everything was an effort in the last 30 days. All questions were answered on 5-point scale ranging from "None of the time" to "All of the time".
Subjective Wellbeing Index	Standardized index comprising variables capturing: (i) How satisfied the respondent felt in the last 30 days about their financial wellbeing, and (ii) How satisfied the respondent felt in the last 30 days about their overall wellbeing. All questions were answered on a 5-point scale ranging from "Very dissatisfied" to "Very satisfied".

Survey Instruments

Baseline: <https://app.box.com/s/xt1ivv14l80qr4oa5s8713mmvi76g0ma>

Endline: <https://app.box.com/s/iekzwxtoxauswrwunq4n8izix0zp2g27>