Appendix

Appendix A: Treatment and Control Robustness Tests

Appendix A.1: Treatment Comparison with the National Government Information

As ELCA protects the identity of the farmers sampled in the survey, we do not have access to the location of the sampled villages. However, we have access to the location of the sampled municipalities. Map A1 shows the location of the villages used in this research and the percentage of villages with armed group presence in each district.. The map shows that our control municipalities are located all over the map. There is one located in the north, one in the south, and most of them are in the middle of the country. The map also shows that the villages with historical presence of the armed group are located all over the map with greater prevalence of high presence in the south of the country. Map A1 also compares the presence reported in the survey with the calculation of FARC governance made by Colombia's ministry of defense. The graph shows that municipalities with a high proportion of villages that reported FARC presence are located in the middle of zones that the ministry of defense identifies as having high presence of FARC. This may suggest that the survey data are consistent with the data of the national government.

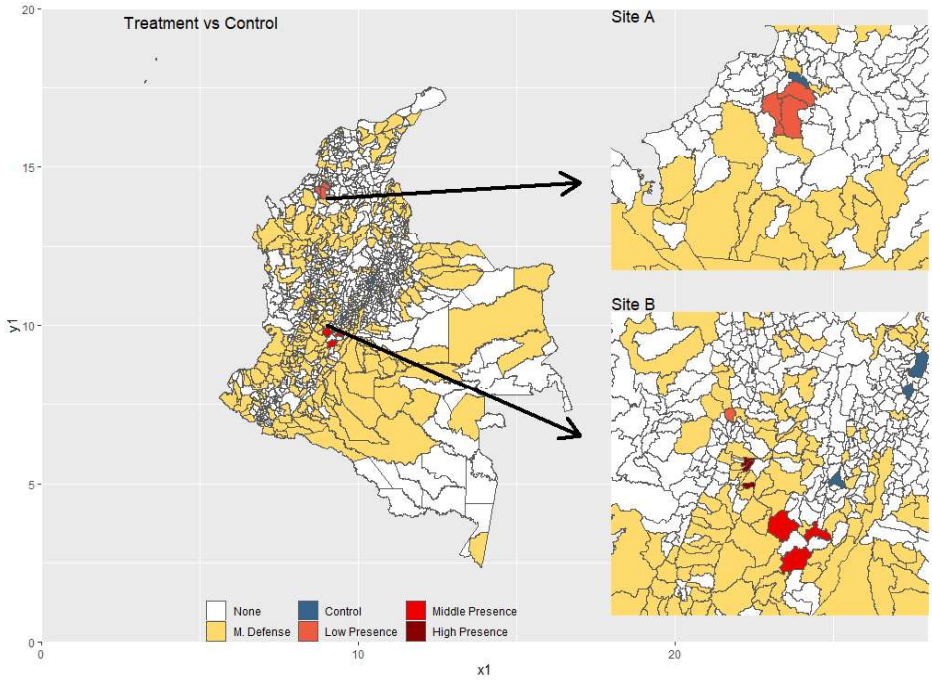
Furthermore, we visually validate the reduction of FARC presence in zones close to the surveyed villages to confirm that the event is valid for our empirical strategy. Maps A2 and A3 depict the intensity of FARC presence measured as the number of FARC members captured by the government against the non-state armed group. Map A2 shows that the whole country was affected by the FARC presence in 2010 and the villages sampled in ELCA were not an exception. Map A3 illustrates a reduction of FARC presence in the whole country after the peace accord. Villages sampled by ELCA were also affected by this reduction of presence registered by the ministry of defense as our data suggested in the survey. We also test this visual conclusion taking characteristics of the violence and the economic activity in different regions of Colombia. We compare the regions (provinces) of Colombia where our data suggests FARC presence against data from the Ministry of Defense that identifies regions that minister of Defense accounts with FARC activity [2]. The department of national statistics (DANE in Spanish) reports this data

[2]We classify regions with FARC activity as those that have any murder or capture registered by the minister of defense of Colombia

for 100 provinces that have on average 10 municipalities. We use the regional data from DANE in Table A.1 to prove that the regions that we classified as FARC controlled areas do not differ on average from those that are built with the public information. Panel A of table A.1 shows that the regions are not statistically different in economic and violent variables.

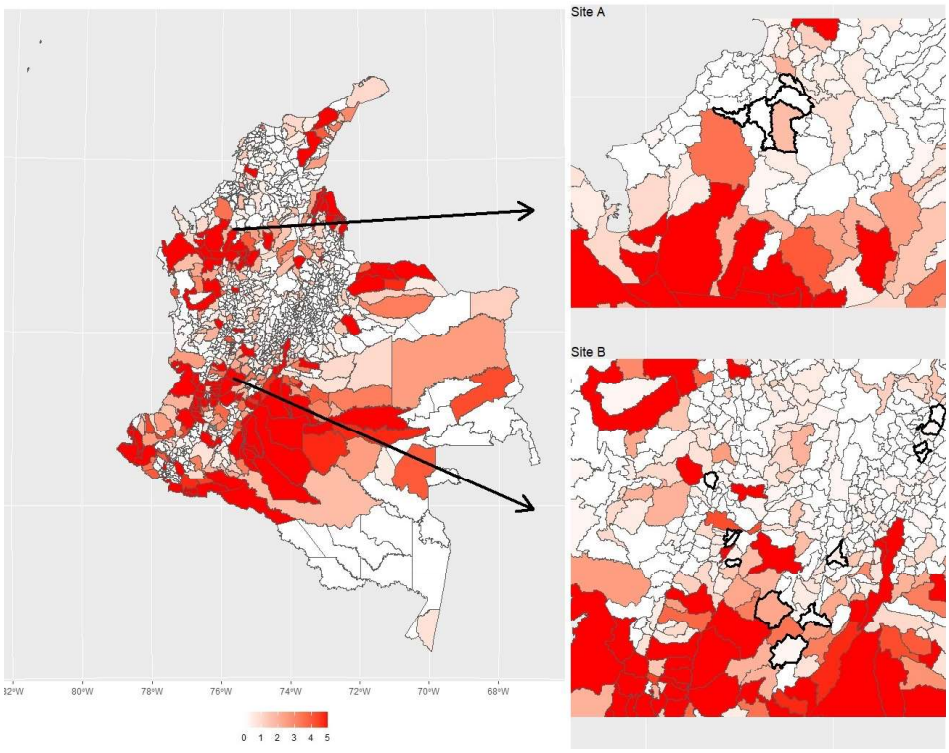
In panel 2 of table A.1 we test if FARC controlled areas calculated with the minister of defense information differ statistically with the ones that we construct with the ELCA sample. The estimation shows that the regions with presence in the ELCA sample are 88% more likely to be classified as FARC controlled areas by the minister of defense index. Table A.2 also shows that the estimates using the ELCA measure of presence are more precise for the first stage of our results.

Map A.1 Location of the Villages



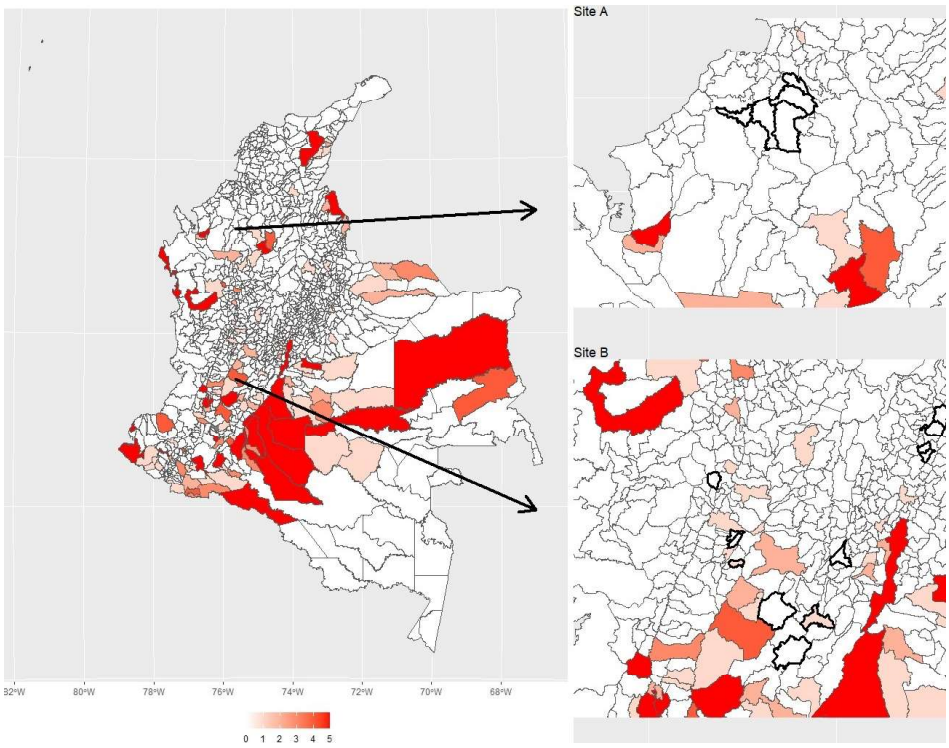
Notes: The yellow color represents areas that the ministry of defence classify as having some level of presence of the armed group in 2010. The colored districts that are not yellow are the ones used in this research. The blue color represents municipalities that have 0% of villages with reported presence, which means that they are the control group.The orange color showcase districts reporting to have 7% villages with presence or less within their territory. The red color represents districts that have between 8% and 21% villages with presence. The dark red color represents districts that have between 21% and 37% villages with presence.

Map A.2 FARC Captures before Cease-Fire (2010-2013)



Notes: The left map represents the intensity of the conflict in Colombia's map. The right maps illustrate the zoom areas in the north and south part of the country. The scale of intensity goes from 0 to 5 as maximum (all values greater than this number are classified as 5), where 0 is represented in white color and 5 in red color. The scale was calculated averaging FARC captures of the 4 years.

Map A.3 FARC Captures At the End of the Peace Process



Notes: The left map represents the intensity of the conflict in Colombia's map. The right maps illustrate the zoom areas in the north and south part of the country. The scale of intensity goes from 0 to 5 as maximum (all values greater than this number are classified as 5), where 0 is represented in white color and 5 in red color. The scale was calculated taking FARC captures on 2016.

Table A.1 Comparison FARC Controlled Area

	ELCA Sample	Population
Murders and Captures FARC per 100,000	6.2 (6.7)	7.9 (12.9)
Murders and Captures ELN per 100,000	0.1 (0.2)	0.3 (1.0)
GDP Per Capita (COP)	6.7 M (2.1)	7.3 M (3.82)
Ag. GDP Per Capita (COP)	2.13 M (1.44)	1.81 M (1.46)
% Poverty	40.6 % (16.05)	45.6 % (19.80)
	Presence of FARC Min. Defence	
Presence FARC from ELCA	0.88*** (0.23)	
Observations	12	

Notes: Column (1) in panel A shows the average of the zones of Colombia in the ELCA sample classified as FARC-Controlled. Column (2) shows the average of the zones of Colombia in the population sample classified as FARC-Controlled. Panel B shows the regression of presence variable in MoD on presence variable of ELCA at Region Level. Both panels use the region sample which groups on average 10 municipalities. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels..

Table A.2 Violence Estimates with Different types of Presence

	MoD Presence		ELCA Presence	
	Murders	Kidnappings	Murders	Kidnappings
FARC * POST	0.00	-0.10	-0.25**	-0.18
	(0.10)	(0.06)	(0.11)	(0.12)
POST	0.56	0.40	0.61	0.13
	(0.47)	(0.34)	(0.54)	(0.32)
Constant	0.17***	0.05***	-0.09	-0.19
	(0.03)	(0.02)	(0.22)	(0.12)
Observations	7705	7705	4795	4795

Notes: Columns (1) & (2) show the effect of treatment interacted with the post-period on the probability to experience murder and kidnappings in the villages with presence as estimated by MoD.Columns (3) & (4) show the effect of treatment interacted with the post-period on the probability to experience murder and kidnappings in the villages with presence as estimated by ELCA. All regressions include household and time fixed effects. Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Appendix A.2: Misspecification of Treatment Robustness Test

This appendix includes figures that give insights from additional analysis of the effect of additional factors in the investment decision of farmers. An important influence in the agricultural market in Colombia is the coca production. The rents of this product are driving the investment decision of farmers for decades, where profits led firms to change legal for illegal products (Prem

et al., 2020). We check in this appendix the effect of coca in the decision of the farmers with the UNODC satellite data of coca fields in Colombia. The map A.4 shows that villages that the survey sampled do not have illegal crops. These findings suggest that the villages are not influenced by coca production, which gives confidence to think that the decision of the farmers and the market is not influenced by the disruption of this product.

Moreover, the presence of other armed groups may influence the reduction of violence and the constraints that households face. Colombia faced the presence of another armed group during the war, the ELN (Ejercito de Liberacion Nacional). The map A.5 shows the captured members of ELN from 2010 to 2016. It looks that this group does not have any influence during the peace period in the villages studied for this article. Moreover, panel A of Table A.1 confirms that is not common to find ELN presence in FARC controlled areas.

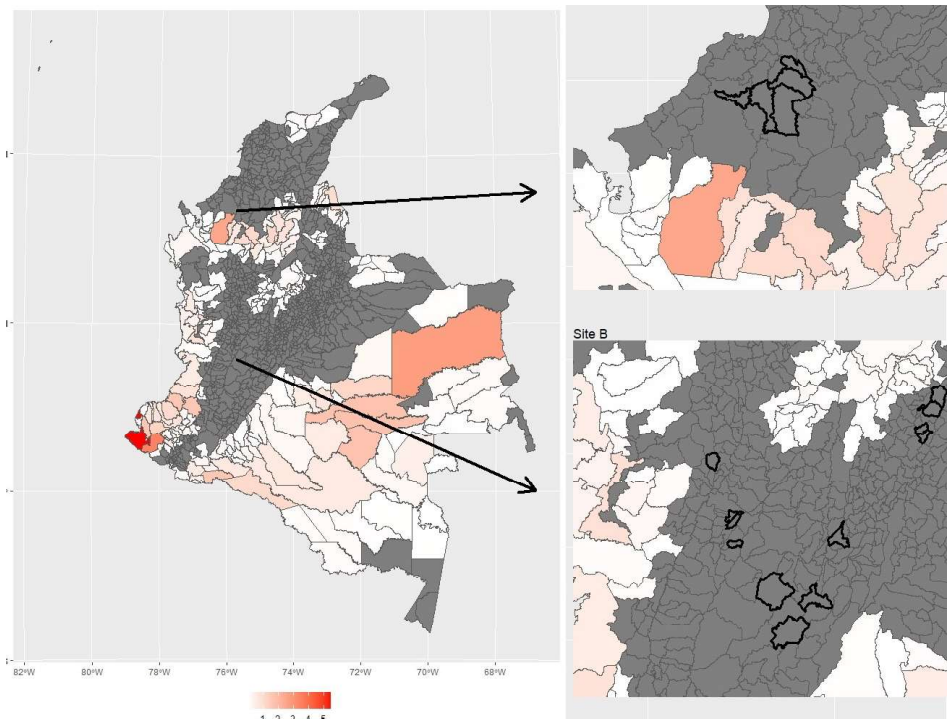
Table A.3: Main Estimates with Organized Crime

	(1) Murders	(2) Kidnappings	(3) Investment	(4) Farm's Size	(5) Perennial	(6) Short
FARC * POST	-0.24*	-0.17	2.14***	-0.23	0.16**	-0.17**
	(0.13)	(0.14)	(0.54)	(0.41)	(0.07)	(0.07)
POST	0.67	0.56	3.43	0.79	0.28	0.22
	(0.55)	(0.37)	(3.23)	(2.63)	(0.22)	(0.30)
CRIME * POST	0.13	0.09	0.02	-0.20	-0.02	-0.05
	(0.14)	(0.12)	(0.33)	(0.29)	(0.04)	(0.04)
Constant	0.19***	0.05**	3.16***	3.03***	0.16***	0.21***
	(0.03)	(0.02)	(0.13)	(0.08)	(0.01)	(0.01)
HH-Year (Observations)	4795	4795	4689	4689	4427	4427
Villages	130	130	130	130	130	130

Notes: Columns (1) & (2) show the effect of treatment interacted with the post-period on the probability to experience murder and kidnappings in the villages with presence as estimated by MoD.Columns (3) & (4) show the effect of treatment interacted with the post-period on the probability to experience murder and kidnappings in the villages with presence as estimated by ELCA. All regressions include household and time fixed effects. Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

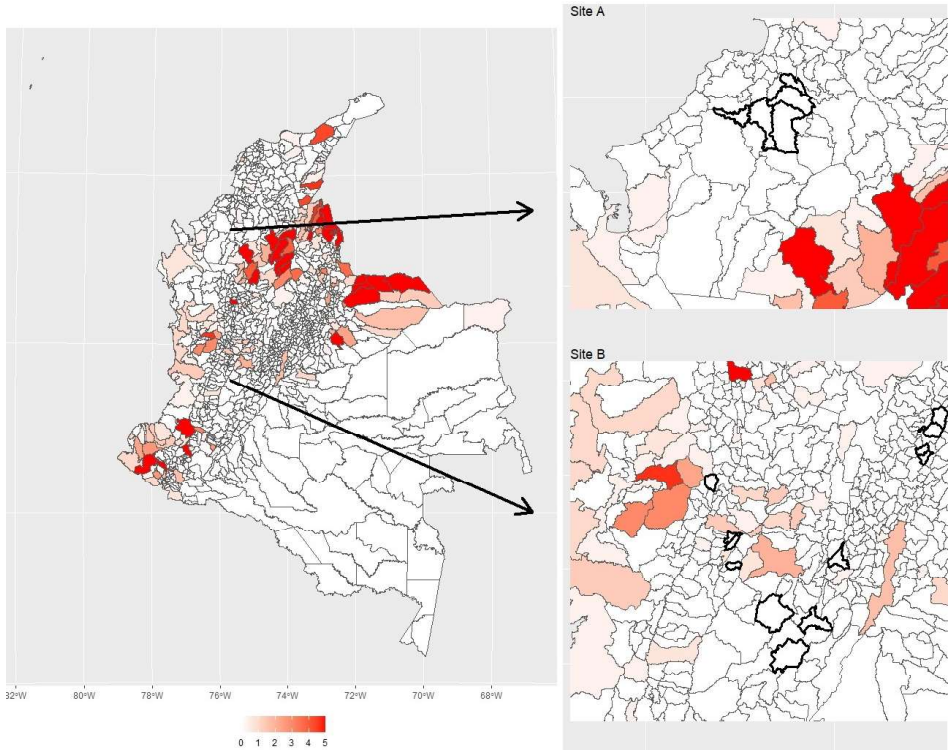
The other influence group in Colombia is organized crime. They are mostly located in the big cities or in the areas with production of coca. The map A.6 shows the incidents that organized crime had in Colombia from 2010 to 2016. It looks that they had some effect in the comparison groups in the north of the country. However, it appears that those groups are not having a significant influence in our results and the table A.3 analysis shows that the point estimates do not differ from the main ones.

Map A.4 Coca Production (2010 - 2016)



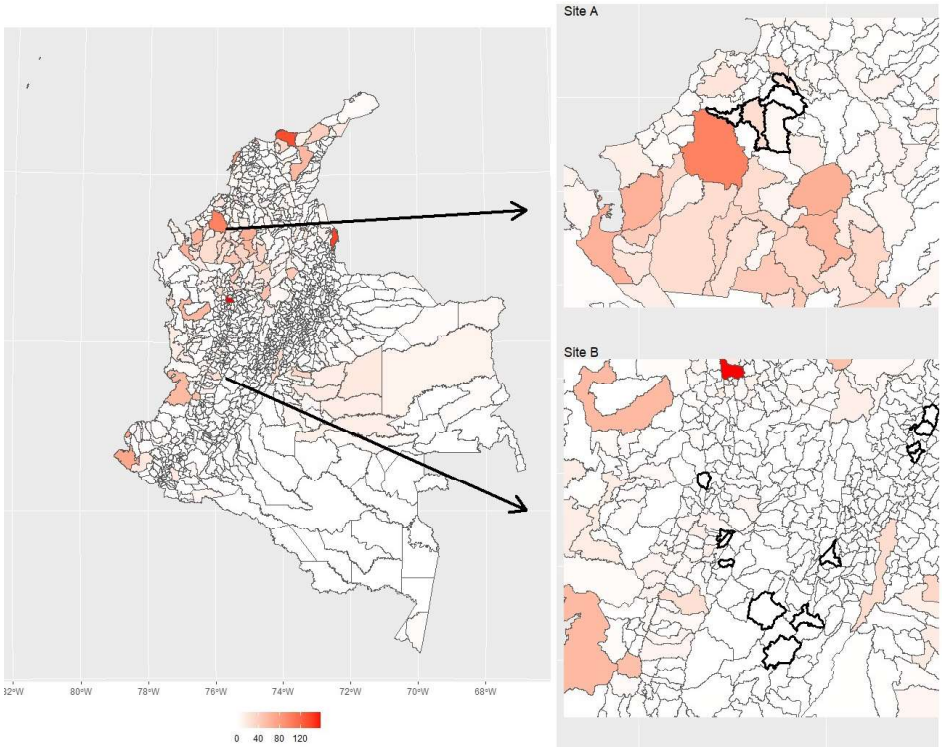
Notes: The left map show the areas in Colombia that UNODC reported to have coca production between 2010 and 2016. The right maps illustrate the zoom areas in the north and south part of the country. The scale of intensity goes from 0.1 hectares to 5 (thousand), where 0 is represented in white color and 5 in red color. Areas in grey color do not report coca production.

Map A.5 ELN Captures (2010-2016)



Notes: The left map represents the intensity of ELN presence in Colombia's map. The right maps illustrate the zoom areas in the north and south part of the country. The scale of intensity goes from 0 to 5, where 0 is represented in white color and 10 in red color. The scale was calculated averaging ELN captures of the years 2010, 2013 and 2016.

Map A.6 Organized Crime (2010 - 2016)

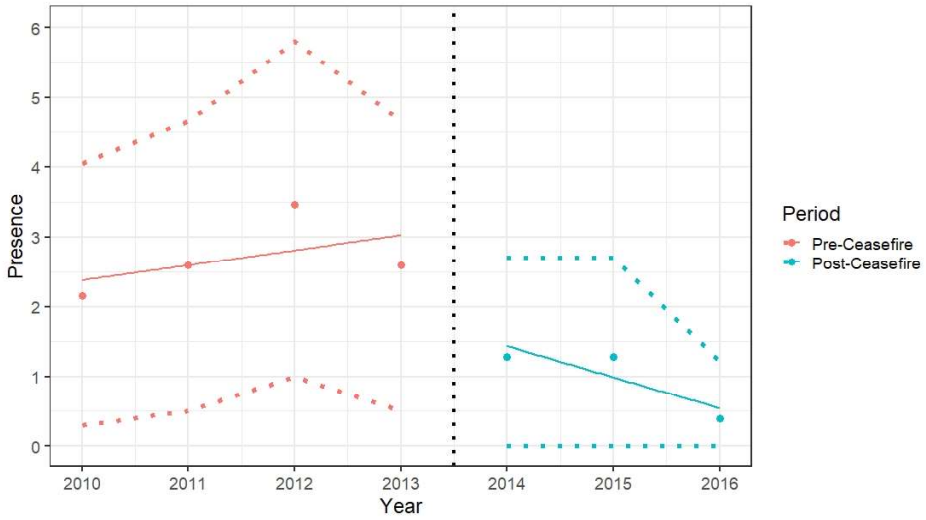


Notes: The left map represents the intensity of organized crime in Colombia's map. The right maps illustrate the zoom areas in the north and south part of the country. The scale of intensity goes from 0 to 300, where 0 is represented in white color and 300 in red color. The intensity scale was calculated averaging all the illegal actions made by organized crime in the years 2010, 2013 and 2016.

Appendix A.3: Evolution of FARC Presence Over Time

This sub-appendix includes figure that give insights from additional analysis of evolution of presence in our sample. We split the periods in two. The first one is the baseline period before the ceasefire and the last one is the period after the ceasefire. The graph shows that FARC presence increased slightly over the period 2010-2013, then dropped slightly in 2014 when the ceasefire came into effect and decreased further between 2014 and 2016, the period of intense peace negotiations.

Figure A.1 Evolution of Presence (2010 - 2016)



Notes: graph shows the evolution of the average presence of armed groups in our sample with confidence intervals at 95%. We split the periods of the graph in two.

Appendix B: Balance Table

We next present summary statistics of household, farm, and village characteristics in the treatment and comparison groups. We expect the groups to be different at baseline if their characteristics are affected by the presence of the armed group. Then, we also compare the groups at the endline in 2016, when the conflict constraint is removed and we would expect them to be more similar.

The results of these comparisons are shown in Table B.1. We compare the characteristics of treatment and comparison groups in the baseline years (2010 and 2013), before the peace agreement, and the difference after the peace agreement (2016). Tests for balance suggest that households in both groups had similar levels of wealth[3] and consumption in initial years. However, treatment households had lower dietary diversity and larger household size. The second panel of Table B.1 reports the difference in farm characteristics. Tests show that farms in the treatment group had significantly lower investment. They also had more land allocated to short term and permanent crops, and less land to pasture and fallow areas. Farms in the two groups are of approximately equal size and have similar tenancy arrangements.

Finally, we compare characteristics associated with exposure to conflict. Balance tests in the third panel of table B.1 show that villages in the treatment group have a higher likelihood of experiencing murders (17 pp higher, significant at p<5%) and kidnappings (15 pp higher, significant at p<10%). These findings confirm that the treatment assignment correctly classified groups into villages with higher and lower exposure to conflict.

Note that the baseline differences in household and farm characteristics between the groups may simply reflect an effect of the conflict environment. For example, FARC-affected households may have a greater risk of land expropriation and thus invest less and favor a different crop portfolio. In order to assess whether the groups are different with respect to longer-term characteristics other than the effect of conflict, we also compare their characteristics in 2016, after the ceasefire had taken effect.

Column (6) in table B.1 shows that the differences between the groups are indeed substantially smaller after the end of conflict. The differences in dietary diversity and household size are smaller and no longer statistically significant. The same is true for the difference in murders and kidnappings, which suggests that the peace substantially reduced conflict exposure in the

[3]Wealth in this paper is calculated with an index created by ELCA that assigns a standardized score based on the value of the household's asset

FARC-affected villages. The difference in farm investment is still statistically significant but now has the opposite sign - farms in previously FARC-affected villages show more investment than farms in unaffected villages. This is consistent with a catch-up effect in which farmers try to quickly increase their capital stock once the conflict constraint has been removed.

The only remaining differences are in pasture and permanent crops, suggesting some differences in the long-term agricultural environment. These differences could affect our estimates if farms with different levels of these variables are on non-parallel time trends or subject to different unobservable shocks. We address this concern in two ways in the next section. First, we show that the treatment and comparison groups were on parallel time trends with respect to farm investment in the pre-treatment period (between 2010 and 2013). Second, we conduct regressions that control for the interaction between time fixed effects and a wide range of observed baseline characteristics. These regressions allow for unobserved time-varying shocks that are correlated with baseline characteristics. This approach does not substantially change our estimates of the effect of the peace on farm investment, which suggests that this type of unobserved shock is not a major source of bias in our analysis

Table B.1: Balance Table

	Balance Analysis 2010 & 2013			Balance Analysis 2016		
	(1) Control	(2) FARC	(3) FARC v Control	(4) Control	(5) FARC	(6) FARC v Control
Household Characteristics						
Monthly Consumption	415	448	33	575	538	-36
	(355)	(375)	(29)	(406)	(332)	(36)
Wealth Measure (Assets)	-0.16	-0.46	-0.30	0.18	-0.04	-0.22
	(2.52)	(1.83)	(0.21)	(1.50)	(1.33)	(0.20)
Dietary Diversity Index (DDI)	0.67	0.64	-0.03	0.69	0.68	-0.01
	(0.15)	(0.16)	(0.02)	(0.15)	(0.15)	(0.02)
Household's Size	4.56	5.25	0.69**	4.13	4.37	0.23
	(1.91)	(2.27)	(0.24)	(1.86)	(2.14)	(0.23)
Farm Characteristics						
Investment on Farm (Pesos)	802	512	-290**	1,063	1,677	614**
	(2,244)	(1,688)	(117)	(3,003)	(3,701)	(290)
Farm's Size	2.89	2.86	-0.2	3.13	2.83	-0.30
	(4.32)	(5.04)	(0.36)	(4.86)	(4.81)	(0.51)
Permanent Crops (% of Farm's Size)	0.15	0.26	0.11**	0.18	0.42	0.24***
	(0.27)	(0.32)	(0.03)	(0.30)	(0.38)	(0.06)
Short Term Crops (% of Farm's Size)	0.23	0.37	0.15***	0.16	0.18	0.02
	(0.36)	(0.38)	(0.05)	(0.27)	(0.32)	(0.03)
Pasture (% of Farm's Size)	0.33	0.08	-0.24***	0.36	0.04	-0.31***
	(0.38)	(0.20)	(0.03)	(0.38)	(0.15)	(0.03)
Fallow Land (% of Farm's Size)	0.15	0.10	-0.05*	0.18	0.16	-0.02
	(0.61)	(0.19)	(0.03)	(0.30)	(0.26)	(0.02)
Ownership	0.74	0.71	-0.03	0.80	0.85	0.05
	(0.44)	(0.45)	(0.04)	(0.40)	(0.36)	(0.04)
Leasing	0.27	0.29	0.02	0.30	0.23	-0.07
	(0.44)	(0.46)	(0.05)	(0.46)	(0.42)	(0.05)
Illegal	0.12	0.10	-0.02	0.04	0.05	0.01
	(0.33)	(0.30)	(0.02)	(0.19)	(0.22)	(0.018)
Village Characteristics and Violence						
Murders	0.13	0.30	0.17**	0.22	0.11	-0.11
	(0.33)	(0.46)	(0.08)	(0.42)	(0.31)	(0.08)
Kidnappings	0.02	0.17	0.15*	0.18	0.16	-0.02
	(0.13)	(0.38)	(0.08)	(0.39)	(0.37)	(0.09)
Bad Infrastructure	0.69	0.74	0.05	0.69	0.61	-0.07
	(0.46)	(0.44)	(0.11)	(0.46)	(0.49)	(0.13)
Observations	2,850	259	3,109	1,499	187	1,686

Notes: Column (1) shows the average of the control group for the periods 2010 and 2013. Columns (2) showcases the average of the treated group. Column (3) shows the difference between the two groups. Columns (4), (5) & (6) repeat the analysis of the first three columns with the sample of the 2016 survey. The variables murders, kidnappings and bad infrastructure are dummy variables in village level. The variables monthly consumption and investment on farm are in thousands. Standard errors are clustered at the village level. The p value significance is shown as: *** 0.01, **0.05 , *0.1.

Appendix C: Heterogeneous Effect

Appendix C.1:Investment

This appendix includes a table that provides additional detail about the estimates on investment on farms between the intensive and extensive margin. Column (1) and (2) in table C.1 provides evidence that peace increases the probability to invest in farms by 26 pp and increases the investment for those farms that already invested in the previous period by almost 74% without being statistically significant. The test of intensive investment shows that investment decisions came from new investors to the market rather than old ones. However, the estimator power might be affected by the reduction of observations in the intensive analysis Moreover, column

(3) provides an additional robustness test using a tobit specification of equation (1), which shows that the estimates are consistent with those of the panel B table 1.

Table C.1 Intensive vs Extensive Analysis

	(1) Extensive Investment	(2) Intensive Investment	(3) Tobit
FARC * POST	0.26***	0.74	1.84***
	(0.07)	(0.56)	(0.37)
POST	0.50	2.17	3.23
	(0.42)	(5.67)	(2.82)
Constant	0.44***	7.24***	-8.80***
	(0.02)	(0.12)	(1.98)
Control Mean	0.27	2,099	796
HH-Year (Observations)	4689	1,668	4689

Notes: Column (1) shows the effect of the treatment on a dummy indicator that takes the value of 1 if the farm invest something and 0 otherwise. Column (2) shows the effect of the treatment on the inverse hyperbolic sine transformation of investment on farm when the investment at baseline was greater than 0. Column (3) shows the effect of treatment on the inverse hyperbolic sine transformation of investment on farm with Tobit specification. Household controls are: logarithm of consumption, wealth of the household and number of people per household. All regressions include household and time fixed effects. Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Appendix C.2 : Farm's Size

This appendix includes a table that provides additional detail about the estimates on heterogeneous effects on farm investment. Table C.2 examines the heterogeneity effect of the initial capital of the farmers, where we interact the treatment with the farm's size at baseline (2013). Column (1) shows that 1 extra Hectare of land in 2013 increased the investment on farms by 20%. Column (2) and (3) depicts that farm's size does not influence the decision to increase permanent crop, but influences the decision to hold short term crops after the peace process, where one additional Hectare increases the decision to hold short term crops by 1% of the land of the farm.

Table C.2 provides evidence that farmers with bigger farms increased investment more than small farms. However, small farms also increased investment substantially, as reflected by the large and statistically significant coefficient associated with the FARC-by-Post variable . Further, We also find evidence that both large and small farms switched production from short term to permanent crops, though the decrease in short term crops is slightly larger for large farms.

Table C.2 Heterogeneous Effect - Initial Capital (2013)

	(1) IHS Transf. Investment	(2) Permanent Crops	(3) Short Term Crops
FARC * POST	1.53**	0.16*	-0.19***
	(0.62)	(0.09)	(0.07)
FARC * POST * Farm's Size at Baseline (2013)	0.20**	0.00	0.01**
	(0.08)	(0.01)	(0.00)
POST	3.07	0.27	0.24
	(3.20)	(0.23)	(0.29)
Constant	3.16***	0.16***	0.21***
	(0.13)	(0.01)	(0.01)
Control Mean	809	0.15	0.23
Farm's Size Control Mean (2013)	3.00	3.00	3.00
HH-Year (Observations)	4683	4421	4421

Notes: Column (1) show the effect of the treatment and the interaction of the farm's size at baseline(2013) with the treatment on the inverse hyperbolic sine transformation of investment on farm. Columns (2) & (3) show the effect of the treatment and the interaction of the farm's size at baseline(2013) with the treatment on the area dedicated to permanent and short term crops as percentage of farm's size. Household controls are: logarithm of consumption, wealth of the household and number of people per household. All regressions include household and time fixed effects. Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Appendix C.3: Debt

This appendix includes additional detail about the estimates on the decision of farmers to take on debt. Table C.3 examines the probability of taking a loan from three different resources. Farmers increase the probability to take a loan with banks by 10% - statistically significant at 10% - and increase the probability to use debt from suppliers by 5% - at 10% of significance. Moreover, panel B of table C.3 depicts that the farm's size does not influence the decision to take debt in any of the possible channels.

Table C.3 Debt Decision

	(1) Bank	(2) Supplier	(3) Informal Debt
FARC * POST	0.10*	0.05*	-0.03
	(0.06)	(0.03)	(0.03)
POST	-0.28	0.05	-0.38
	(0.28)	(0.13)	(0.24)
Constant	-0.75***	-0.09	0.26
	(0.23)	(0.10)	(0.23)
Control Means	0.32	0.05	0.13
HH-Year (Observations)	4795	4795	4795

	(1) Bank	(2) Supplier	(3) Informal Debt
FARC * POST * Farm's Size at Baseline (2013)	-0.01	-0.001	-0.001
	(0.01)	(0.01)	(0.01)
FARC * POST	0.08	0.04	-0.03
	(0.07)	(0.03)	(0.04)
POST * Farm's Size at Baseline (2013)	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)
POST	0.31	0.38*	0.11
	(0.34)	(0.20)	(0.30)
Constant	0.37***	0.06***	0.12***
	(0.01)	(0.01)	(0.01)
Control Means	0.32	0.05	0.13
HH-Year (Observations)	4786	4786	4786

Notes: Panel A showcases the effect of the treatment interacted with the post-period on the type of debt taken. Panel B shows the effect of the treatment and the interaction of the farm's size ta baseline (2013) with treatment on the type of debt taken. All regressions include household and time fixed effects. Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Appendix D: Robustness Checks

Appendix D.1: Robustness Tests

We conduct several robustness tests for the identifying assumption of the difference-in-differences model in Table D.1. As discussed above, the most restrictive specifications in that table control for the interactions between time fixed effects and a wide range of observed baseline characteristics, including household size, consumption, wealth, and market access (road conditions and distance from village center). These specifications allow for unobserved time-varying shocks that are correlated with the observed baseline characteristics. As stated above, this approach does not substantially change our estimates of the effect of the peace, which suggests that this type of unobserved shock is not a major source of bias in our analysis.

We also directly test for parallel trends in the pre-treatment period by estimating the following equation:

$$Y_{it} = \alpha + \beta_2 FARC_i \times POST_t + \beta_3 Y2013_t \times FARC_i + \beta_4 H_i \times POST_t + \theta_i + \gamma_t + \epsilon_{it} \quad (1)$$

The results of this test are presented in Table D.1. The estimates show no statistical evidence that treatment and comparison groups were on non-parallel trends in the pre-treatment period. The point estimate of β_3 suggests a relative upward trend in investment in the treatment group, but this estimate is not statistically significant once we control for the interaction between time fixed effects and baseline characteristics. We also conduct a robustness test that estimates the effect of the peace using the recently developed synthetic difference-in-differences method of Arkhangelsky et al. (2021). The estimated effect is statistically significant and slightly larger than our baseline estimates that use a standard Difference-in-Differences approach.

Next, we check whether our estimates were affected by either the expansion of coca production or government programs. UNODC (2020) showed that the number of hectares dedicated to coca production increased dramatically during the period of observation. Mejia et al. (2019) show that this increase is partly due to anticipated payments from a coca reduction program that was part of the peace agreement. If farmers in FARC-affected areas invested in coca production to get access to payments from this program, this could affect our estimates. However, this is unlikely to be the case since none of the villages in our sample reported coca production at any point during the period of observation. Appendix A.2.1 confirms this finding with satellite data that identify coca production areas from the UNODC for the period between 2010 and 2016.

A related concern is that our estimates may partly reflect government support to the agricultural sector, instead of the peace accord *per se*. As part of the peace agreement, the national government promised to develop a National Plan to create a "New Rural Colombia" by investing in rural areas (Mesa de Conversaciones, 2018). Specifically, the final document included provisions for providing public infrastructure, subsidies and loans, as well as technical support to rural areas. However, as noted above in Section 2 of the main manuscript, the investment promised in the agreement was delayed for several years after the agreement took effect – none of the programs for rural investment had been initiated by 2017, and only limited investment had occurred by 2020 (KROC, 2017, 2021). It is therefore unlikely that the estimates above reflect an effect of public investment programs.

Still, we explore this issue by estimating regressions that control for an indicator for whether farmers receive any support from the government or an international actor. The results, shown in columns (1) to (3) of Table D.2, show that the inclusion of this control variable does not substantially affect our estimates. We also test if the peace process increased the probability of receiving aid from the government or international actors, by estimating the model described by Equation 1 in the main manuscript with indicators for receiving support as outcomes. The

outcome in column (4) of Table D.2 is the same indicator for receiving any government support that we used as a control variable in columns 1-3. The outcomes in columns (5) and (6) are indicators for two of the main agricultural programs in the country at the time: 'Restitucion de tierras', and 'ley de victimas'. The outcome in column (7) is an indicator for receiving support from an international organization. The results do not provide evidence that support from government programs or international actors increased more in FARC-affected areas than other areas after the peace. Taken together, the results of these robustness tests suggest that it is unlikely that an expansion of humanitarian aid programs to FARC-affected areas is a major source of bias in our analysis.

Table D.1: Robustness Test for Parallel Trends and Synthetic Control

	IHS Transformation Investment of Farm			
	DID			SDID
	(1)	(2)	(3)	(4)
FARC * POST	2.77***	2.61***	2.89***	3.88***
	(0.55)	(0.54)	(0.41)	(0.59)
POST	0.32	2.07	1.64	
	(0.23)	(3.07)	(3.01)	
FARC * Y2013$_t$	0.80*	0.58	0.87	
	(0.46)	(0.57)	(0.57)	
Y2013$_t$	1.10***	-1.39	-1.99	
	(0.30)	(3.77)	(3.69)	
Constant	1.98***	1.99***	1.98***	
	(0.16)	(0.16)	(0.16)	
Control Mean Investment	796	796	796	796
Difference at Baseline	308	308	308	308
Baseline HH controls X Time FE	No	Yes	Yes	
Baseline Infrastructure Controls X Time FE	No	No	Yes	
HH-year (Observations)	4689	4689	4689	4689
Villages	130	130	130	130

Notes: Panel A in columns (1), (2), and (3), the left-hand side variable is the inverse hypoerbolic sine transformation of farm investment in 1,000s of pesos. Household controls are: logarithm of consumption, wealth of the household and number of people per household. Infrastructure controls are: household's travel time to village center, and an indicator for whether roads in the village are in bad condition Standard errors are clustered at village level. Column (4) shows the effect of FARC presence using synthetic DID as is specified in Arkhangelsy et al. (2021). Standard errors are constructed with placebo method. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Table D.2: Robustness Test for Effect of Government Support

	IHS Transformation Investment on Farm			Support Programs			
	(1)	(2)	(3)	(4) Any Support	(5) R. Tierras	(6) L. Victimas	(7) Int. Support
FARC * POST	2.10***	2.11***	2.16***	-0.03	0.00	0.00	-0.03
	(0.56)	(0.56)	(0.55)	(0.06)	(0.00)	(0.00)	(0.04)
POST	-1.08***	1.28	1.83	-0.03	0.02	0.01	0.04
	(0.28)	(3.72)	(3.65)	(0.20)	(0.01)	(0.01)	(0.07)
Government Support	0.30	0.32	0.31				
	(0.23)	(0.23)	(0.23)				
International Support	-1.58*	-1.42	-1.31				
	(0.85)	(0.86)	(0.86)				
Constant	2.98***	2.97***	2.97***	0.63***	0.00**	0.00***	0.01*
	(0.21)	(0.22)	(0.22)	(0.01)	(0.00)	(0.00)	(0.00)
B. HH controls X Time FE	No	Yes	Yes	No	Yes	Yes	Yes
B. Infra. Controls X Time FE	No	No	Yes	No	No	Yes	Yes
HH-Year (Observations)	4689	4689	4689	4789	4789	4789	4789

Notes: In columns (1), (2), and (3), the left-hand side variable is the inverse hypoerbolic sine transformation of farm investment in 1,000s of pesos. In columns (4), (5), (6) and (7) show probability to receive any support, probability to receive support from "ley de tierras" , probability to receive support from "Ley de Victimas" and the probability to receive support from an international organization such as NGOs or multilateral institutions. Household controls are: logarithm of consumption, wealth of the household and number of people per household. Infrastructure controls are: household's travel time to village center, and an indicator for whether roads in the village are in bad condition. All regressions include household and time fixed effects. Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Appendix E: Government Support Programs

This appendix explores the possibility that government support programs are a potential confounding variable in our estimates of investment as a function of the cessation of conflict. One important cornerstone of the peace agreement was the commitment of additional government support for farmers in their productive activities amid providing reparations to the victims of violence. We already show that this hypothesis was not accomplished for the main estimate in the section 1. However, these programs may affect complementary outcomes as land use by programs that assign land to the victims. We test this hypothesis in the other outcomes in the table E.1.

Table E.1 shows that none of the estimators change with the inclusion of the control. These results confirm that the increase of investment happened because the expectation of the households changed and not because the government boosted the investment through agricultural or victims programs.

Table E.1. Complementary Estimates controlling by support programs

Panel A: Violence and Investment

	(1) Murders	(2) Kidnappings	(3) Farm's Size
FARC * POST	-0.25**	-0.18	-0.21
	(0.11)	(0.12)	(0.34)
POST	0.66*	0.37	-4.95*
	(0.38)	(0.29)	(2.57)
SUPPORT	-0.01	-0.00	-0.42***
	(0.01)	(0.01)	(0.15)
HH-Year (Observations)	4795	4795	4689

Panel B: Land Use

	(1) Perennial Crops	(2) Short Term	(3) Pasture	(4) Cultivated + Pasture	(5) Fallow Land
FARC * POST	0.16***	-0.17***	-0.04***	-0.06*	0.05
	(0.05)	(0.05)	(0.02)	(0.03)	(0.03)
POST	-0.08	0.20	-0.15	-0.04	-0.37
	(0.23)	(0.30)	(0.24)	(0.29)	(0.60)
SUPPORT	-0.00	-0.01	-0.03***	-0.05***	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
HH-Year (Observations)	4427	4427	4427	4427	4427

Panel C: Consumption

	(1) Consumption	(2) Food Consumption	(3) Wealth Index
FARC * POST	-0.03	-0.02	-0.14
	(0.05)	(0.06)	(0.10)
POST	8.33***	5.90***	-2.29***
	(0.42)	(0.47)	(0.60)
SUPPORT	0.03	0.05**	-0.00
	(0.02)	(0.02)	(0.03)
HH-Year (Observations)	4793	4793	4795

Notes: Panel A shows the effect of the treatment interacted with the post-period on different violence and investment outcomes. Columns (1)& (2) show the effect of peace interacted with the post-period on the probability of having murders and kidnappings in the villages. Columns (3) shows the effect of treatment interacted with the post-period on the farm's size. Panel B showcases the effect of the treatment interacted with the post-period on the size of different land use as percentage of the farm's size. Short term accounts for mixed crops and annual crops. Pasture presents the area dedicated to livestock and parture. Cultivated + pasture accounts for the sum of perennial, short and pasture land. Fallow land accounts for not used and forest area. columns (1), (2) & (3) in panel C accounts for the effect of the treatment interacted with post-period on logarithm of consumption, logarithm of food consumption and the Dietary diversity index respectively. Household controls are: logarithm of consumption, wealth of the household and number of people per household. All regressions include household and time fixed effects. Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Appendix F: Neighbors

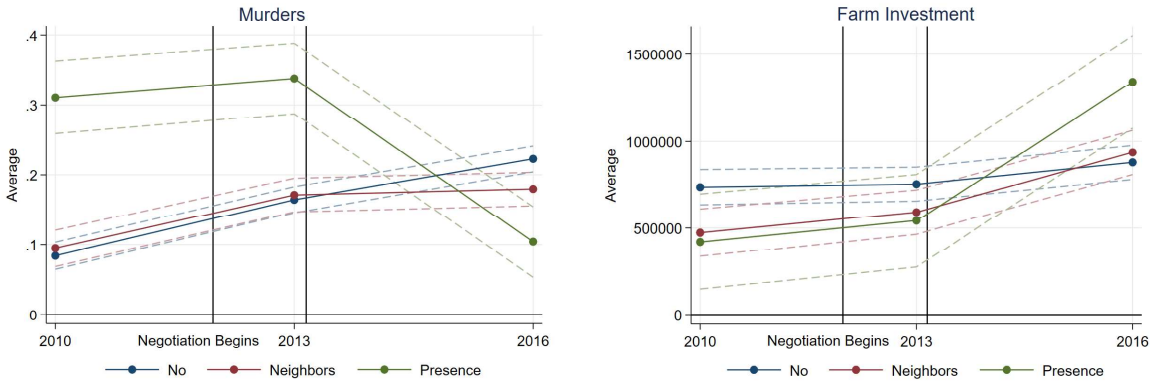
Appendix F.1: Descriptive Variables

This appendix includes tables and figures that give insights from additional analysis of the spillover effect. The figure F.1 shows the variation of murders and farm investment in a graph that includes the trend of neighbors. The observations of those who are located in neighboring villages preserve the parallel trend before 2013, after the ceasefire murders slightly decreased and investment increased at the level of the comparison group.

The table F.1 shows the balance characteristics and test for differences of the main welfare features of the households, some farm characteristics, and some violence characteristics of the village. Tests for balance in the baseline suggest that households are equivalent in most of the wealth measures with some slight difference in household's size with respect to FARC-affected areas and DDI index with respect to comparison areas. As we show in the second panel of table B.1, table F.1 also suggest important difference in farm's characteristics with respect to comparison areas that are mitigated after the peace agreement with the same exceptions of permanent and pasture land. The Farm characteristic's panel in table F.1 also suggest minor difference between FARC-affected areas and their neighbors in short term crops and fallow land that disappear in 2016. Moreover, after peace agreement the difference in farm investment and area used in pasture increase between FARC-affected areas and their neighbors.

The third panel of table F.1 presents the difference in violence and infrastructure characteristics. There is not statistical difference between murders, kidnappings or infrastructure status between neighbors and comparison group. However, murders are 18 pp greater in FARC-affected areas than in neighboring areas in the initial years. This difference disappears in 2016, suggesting a decrease in violence with respect to neighboring areas too.

Figure F.1. Violence and Investment



Notes: The left graph shows the trend in treatment, neighbor and control group of the average of a dummy variable that accounts for murders in the villages. The right graph shows the level of investment in Colombian pesos.

Table F.1. Balance Analysis

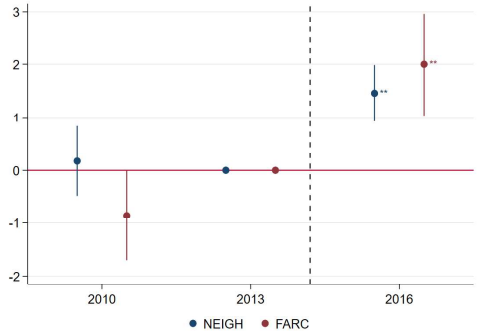
	Balance Analysis 2010 & 2013			Balance Analysis 2016		
	(1) Control	(2) NEIGH V Control	(3) FARC v NEIGH	(4) Control	(5) NEIGH V Control	(6) FARC v NEIGH
Household Characteristics						
Monthly Consumption	411,603	-1,802	28,118	574,575	-15,207	14,353
	(352,355)	(15,629)	(28,118)	(406,524)	(25,155)	(36,847)
Wealth Measure (Assets)	-0.20	0.09	0.05	0.18	-0.06	-0.09
	(2.50)	(0.17)	(0.24)	(1.50)	(0.13)	(0.20)
Dietary Diversity Index (DDI)	0.67	-0.015*	-0.013	0.69	-0.005	0.002
	(0.15)	(0.01)	(0.014)	(0.15)	(0.009)	(0.017)
Household's Size	4.55	0.07	0.45*	4.13	-0.03	0.28
	(1.90)	(0.12)	(0.25)	(1.86)	(0.13)	(0.22)
Farm Characteristics						
Investment on Farm (Pesos)	796	-232**	-63	1,062	-1.20	559**
	(2,227)	(82)	(101)	(3,003)	(150)	(278)
Farm's Size	2.89	-0.44*	-0.04	3.13	-0.50*	0.08
	(4.29)	(0.25)	(0.35)	(4.86)	(0.27)	(0.49)
Permanent Crops (% of Farm's Size)	0.15	0.14***	-0.03	0.18	0.20***	0.05
	(0.27)	(0.02)	(0.03)	(0.30)	(0.03)	(0.06)
Short Term Crops (% of Farm's Size)	0.23	0.05***	0.10**	0.16	-0.02	0.04
	(0.36)	(0.02)	(0.04)	(0.27)	(0.02)	(0.03)
Pasture (% of Farm's Size)	0.33	-0.21***	-0.04	0.36	-0.24***	-0.07**
	(0.38)	(0.03)	(0.03)	(0.38)	(0.03)	(0.026)
Fallow Land(% of Farm's Size)	0.15	-0.05***	-0.031*	0.18	-0.03	0.002
	(0.61)	(0.02)	(0.018)	(0.30)	(0.02)	(0.018)
Ownership	0.74	0.03*	-0.036	0.80	0.02	0.03
	(0.43)	(0.02)	(0.03)	(0.40)	(0.023)	(0.03)
Leasing	0.27	-0.028	-0.01	0.30	-0.01	-0.06
	(0.44)	(0.02)	(0.03)	(0.45)	(0.03)	(0.05)
Illegal	0.12	-0.01	-0.013	0.039	0.013	-0.010
	(0.33)	(0.01)	(0.02)	(0.19)	(0.011)	(0.02)
Village Characteristics and Violence						
Murders	0.12	0.01	0.18**	0.22	-0.04	-0.067
	(0.33)	(0.04)	(0.07)	(0.42)	(0.06)	(0.07)
Kidnappings	0.017	0.02	0.11	0.18	-0.15**	0.10
	(0.13)	(0.02)	(0.07)	(0.39)	(0.05)	(0.08)
Bad Infrastructure	0.69	-0.07	0.11	0.69	-0.06	0.03
	(0.46)	(0.06)	(0.10)	(0.46)	(0.08)	(0.13)
Observations	2,998	4,782	5,552	1,499	2,391	2,776

Notes: Column (1) shows the average of the control group for the periods 2010 and 2013. Columns (2) showcases the difference of the neighboring areas with the control group. Column (3) shows the difference between FARC-affected areas and Neighboring areas. Columns (4), (5) & (6) repeat the analysis of the first three columns with the sample of the 2016 survey. The variables murders, kidnappings and bad infrastructure are dummy variables in village level. The variables monthly consumption and investment on farm are in thousands. Standard errors are clustered at the village level. The p value significance is shown as: *** 0.01, **0.05 , *0.1.

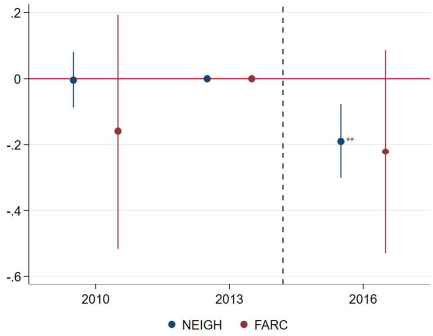
Appendix F.2: Parallel Trend

This sub-appendix includes figures that give insights from additional analysis of the parallel trend combined with the spillover effect. Figure F.2 Shows the graphical representation of the equation 1. All the estimates are compared with respect to 2013 and show a confidence interval at 90%. Dots that include "$**$" represents a difference greater than 5% p value significance. The figure depicts that all the complementary estimates follow a parallel trend in both groups (Neighboring and FARC-affected areas) with respect to control group.

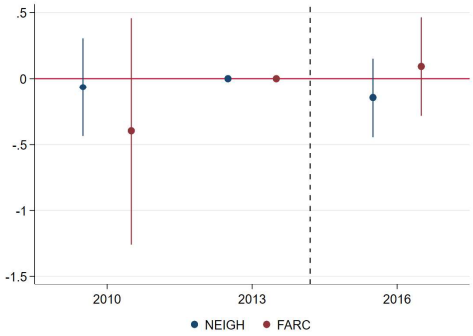
Figure F.2 : Parallel Trend Validation



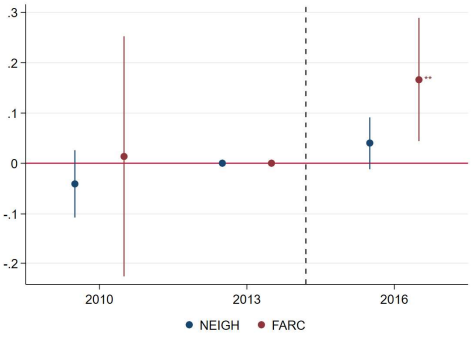
Farm Investment (IHS Transformation)



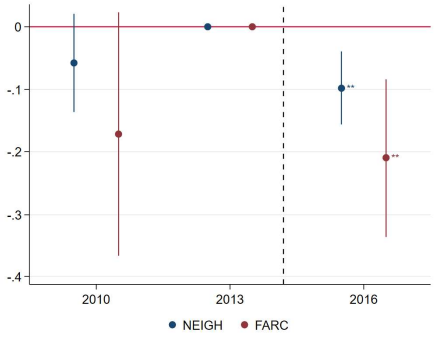
Kidnappings



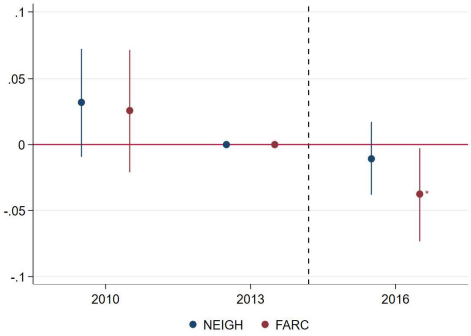
Farm's Size



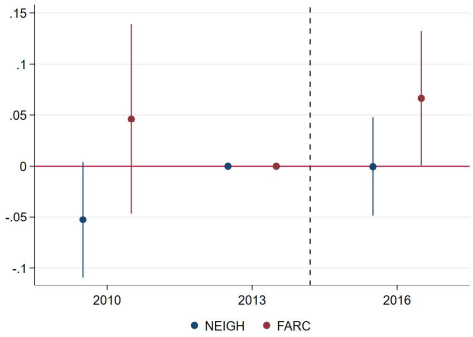
Permanent Crops



Short Term Crops



Pasture



Fallow Land

Appendix F.3: Estimates using Neighboring Municipalities with presence of FARC in Baseline as control

This sub-appendix includes figures that give insights from additional analysis of inclusion of neighboring municipalities with presence of FARC as control.

F.2 Estimates with Neighboring Municipalities with Presence

	(1) Murders	(2) Kidnappings	(3) Investment	(4) Farm's Size	(5) Perennial	(6) Short
FARC * POST	-0.25**	-0.16	1.90***	-0.14	0.15***	-0.16***
	(0.11)	(0.12)	(0.44)	(0.33)	(0.05)	(0.05)
NEIGH * POST	-0.03	-0.16***	1.18***	-0.03	0.06**	-0.05**
	(0.07)	(0.05)	(0.25)	(0.16)	(0.02)	(0.02)
POST	0.62	0.42	-0.16	0.52	-0.16	0.41**
	(0.40)	(0.27)	(2.44)	(1.86)	(0.18)	(0.18)
M. NEIGH * POST	0.00	-0.15	1.07***	-0.24	0.05***	-0.10***
	(0.17)	(0.12)	(0.23)	(0.27)	(0.02)	(0.03)
Constant	-0.04	-0.05	-7.75***	-12.73***	0.27**	0.11
	(0.20)	(0.12)	(1.90)	(2.80)	(0.12)	(0.15)
Control Mean	0.13	0.02	796	2.89	0.15	0.23
HH-Year (observations)	7351	7351	7126	7126	6727	6727

Notes: Columns (1) & (2) show the effect of both treatments interacted with the post-period on the probability to experience murder and kidnappings in the villages.Columns (3) & (4) show the effect of both treatments interacted with the post-period on the inverse hyperbolic sine transformation of investment on farm in the last three years and farm's size in levels. Column (5) showcases the effect of both treatment interacted with the post-period on the size of the land dedicated to perennial crops as percentage of the farm's size. Household controls are: logarithm of consumption, wealth of the household and number of people per household. All regressions include household and time fixed effects. The parameter N. Neigh takes the value of 1 if the municipality where is the household has a neighboring municipality with presence of FARC in the baseline. Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Appendix G: Full Sample and Attrition Estimates

This appendix includes tables that give insights from the use of the whole sample, without constraining to a balanced data set as well as the attrition analysis.

Table G.1 shows that the main results are not statistically different from those that use the balanced panel. We also did an attrition analysis in table G.2 that tests if the people that leave the village are affected by the treatment(FARC - NEIGH). The results in the table shows that there is no relation between treatment and attrition.

Table G.1 Investment on Farm

	IHS Transformation Investment on Farm			Levels (Thousands) Investment on Farm		
	(1)	(2)	(3)	(4)	(5)	(6)
FARC * POST	1.77***	1.76***	1.77***	804.07**	781.29**	763.42*
	(0.50)	(0.46)	(0.54)	(362.28)	(359.97)	(405.78)
POST	-0.33**	4.26	4.08	265.52**	-2293.20	-2254.80
	(0.14)	(3.07)	(3.12)	(112.30)	(2180.45)	(2231.63)
Constant	2.59***	3.04***	3.06***	729.32***	742.33***	760.47***
	(0.06)	(0.13)	(0.13)	(44.42)	(73.76)	(73.58)
HH-year (Observations)	6652	6364	5943	6652	6364	5943
R^2	0.494	0.489	0.480	0.513	0.495	0.487
Adjusted R^2	0.140	0.161	0.166	0.173	0.170	0.177

Notes: In columns (1), (2), and (3), the left-hand side variable is the inverse hypoerbolic sine transformation of farm investment in 1,000s of pesos. In columns (4), (5), and (6), the left-hand side variable is the level of farm investment in 1,000s of pesos. Household controls are: logarithm of consumption, wealth of the household and number of people per household. Infrastructure controls are: household's travel time to village center, and an indicator for whether roads in the village are in bad condition. All regressions include household and time fixed effects. Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

Table G.2 Attrition Analysis

	Attrition	
	(1)	(2)
FARC	0.004	0.005
	(0.026)	(0.026)
NEIGH		-0.003
		(0.022)
Constant	1.123***	1.116***
	(0.165)	(0.139)
Households	1864	2816
R^2	0.002	0.002
Villages	201	201

Notes: Regressions are controlled by logarithm of consumption, wealth of the household and number of people per household, household's travel time to village center, and an indicator for whether roads in the village are in bad condition Standard errors are clustered at village level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels.

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