

Government Ownership of Banks

Diversification of Potential Products and Factors to Subsidize Agriculture

Nith Kosal

Future Forum

nithkosal@futureforum.asia

<https://nithkosal.github.io>

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Motivation

- ▶ Agriculture industry remains the main sector contribute to the economic growth in Cambodia ▶ Agricultural GDP
- ▶ But this sector still meets critical challenges: the lack of leadership and effective decision-making, lack of technical knowledge and skills, lack of physical and virtual infrastructure, limited financial market development, high inputs prices, deficiency of the market, and others
- ▶ The Agricultural and Rural Development Bank (ARDB) is a government-backed monopoly of the public bank to support agriculture and rural economy
- ▶ More than 75% of amount ARDB credit went to the rice sector

This Paper

- ▶ **Research Question:** What are the potential products and factors in the crop and livestock subsector that government ownership of banks should focus on providing financial assistance?
- ▶ **Approach:** The usage of the dataset on the agricultural output and input with the two-step estimator of the generalized method of moments (GMM).
- ▶ **Main Message:** We are difficult to identify the potential products due to the lack of microdata and uncertainty market in the future.

Main Results

- ▶ ARDB experienced a robust capital performance with an untrue in total asset and credit over time
- ▶ A new free trade agreement with China is a good opportunity, but it is a problem for agriculture
- ▶ Many agricultural inputs such as water through irrigation, tractors, fertilizers, employment, and net capital stock in agriculture are not much efficient for crop production. While many direct and indirect inputs are not correlated with livelihood's product estimators
- ▶ Simultaneously, I have found that per capita value added in agriculture, consumption of agricultural products and taxes less subsidies in products cannot be a major driver of growth in production for crop and livestock

Main Related Literature

- ▶ **Government Ownership of Banks:** Altunbas et al. (2001), Andrianova et al. (2010), Demetriades et al. (2008), Galindo and Micco (2004), Iannotta et al. (2007), La Porta et al. (2002), Shen et al. (2014), Stiglitz (1993).
 - *Public banks and good policies play a significant role in economic growth*
- ▶ **Agriculture Development:** Sareth et al. (2020), Butler and Moser (2010), Laitner (2000), Costinot et al. (2016), Eliste and Zorya (2015), Aragón et al. (2019), Bareille and Letort (2018), Emerick et al. (2016).
 - *Fewer technologies and less resilience to climate change in developing worlds*
- ▶ **Public Subsidy:** Doh and Kim (2014), Garrone et al. (2019), Googwin et al. (2011), O'Toole et al. (2014), Sothorn (2020).
 - *It is a good mechanism for economic development and social well-being*
- ▶ **Economic Diversification:** Dissart (2003), Revilla et al. (2015); Shyu and Chen (2019); Kikenny and Nalbarte (2002), Paul and Nehring (2005), Rahman (2009).
 - *Stable economic growth and ability to adapt to future uncertainty changes*

Road Map

- ① Data
- ② Econometric Model
- ③ Estimation Results
- ④ Policy Discussions

Data

- ▶ I used the national-level dataset of agricultural inputs and outputs over the period 1989-2018.
 - **Agricultural Input:** the FAOSTAT (FAO), the WDI (World Bank), and the National Accounts Statistics (NIS)
 - **Agricultural Production:** the FAOSTAT
- ▶ At the time, I selected 46 commodities from the total number of agricultural products in Cambodia, 32 in cultivation and 14 in livestock.
- ▶ Linear interpolation, log-linear interpolation and cubic spline multiple interpolation were applied to calculate some missing values of some variables.

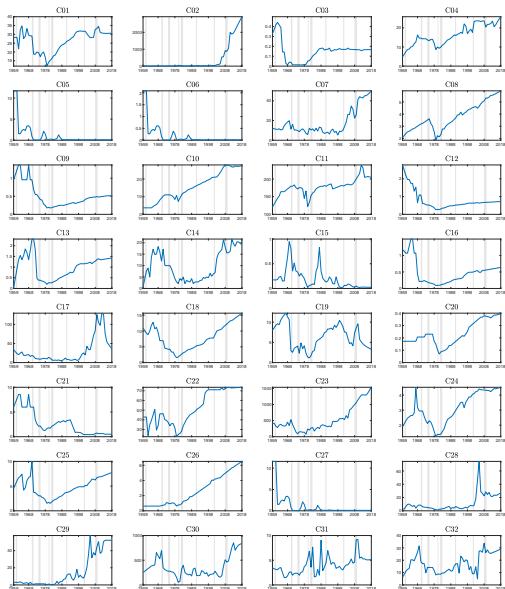
Summary Statistics

Variable	Unit	1989-2018				Source
		Min	Mean	Max	St. Dev.	
CIndex	Number	0.78	0.96	1.14	0.12	Author's Calculation
LIndex	Number	1.65	1.74	1.87	0.07	Author's Calculation
Agriland	1000 Hectares	4435.00	5044.03	5566.00	428.22	FAOSTAT
LandIrrigation	1000 Hectares	230.00	309.72	354.00	44.04	FAOSTAT
Tractors	Number	1190.00	3292.75	5696.98	1747.25	FAOSTAT
Fertilizer	Kg per Hectare	3.00	9.76	26.26	7.57	WDI
Pesticides	Tonnes	17.09	3873.26	16572.33	5473.89	FAOSTAT
Employment	1000 Peoples	3027.09	3845.27	4708.94	490.63	ILOSTAT
Temperature	Celsius (°C)	0.18	0.60	1.37	0.32	FAOSTAT
NCSAgri	Millions US\$	559.10	1168.98	2563.57	616.28	FAOSTAT
GFCFgri	Millions US\$	65.00	141.51	289.67	86.13	FAOSTAT
CreditAgri	Millions US\$	8.33	328.95	1857.22	558.72	FAOSTAT
RDBFunds	Millions US\$	3.28	44.16	104.78	30.30	WDI
TechnicalGrants	Millions US\$	24.35	406.63	682.12	188.55	WDI
ForeignAid	Millions US\$	1.36	1007.87	3342.84	781.20	FAOSTAT
FDIgri	Millions US\$	1.12	48.72	176.48	53.63	FAOSTAT
VAAgri	Millions US\$	1597.77	2907.33	4412.07	974.61	WDI
VAWorker	US\$	262.45	727.92	1417.25	301.99	WDI
CFCgri	Millions US\$	31.94	69.94	155.00	36.93	FAOSTAT
FCE	Millions US\$	1609.11	5299.44	11377.44	3053.73	NIS
TaxesSubsidies	Millions US\$	23.50	448.92	1274.40	376.23	NIS

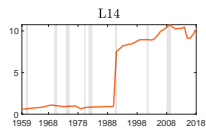
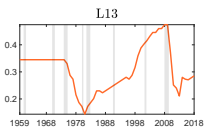
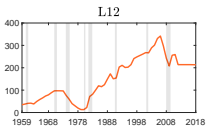
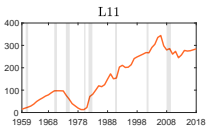
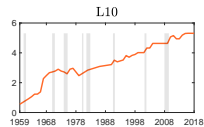
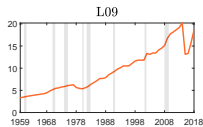
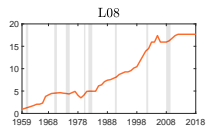
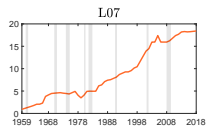
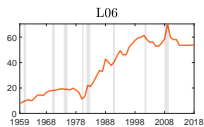
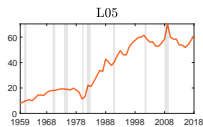
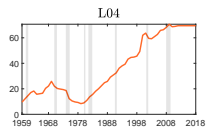
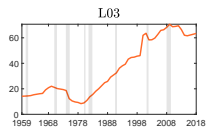
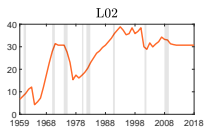
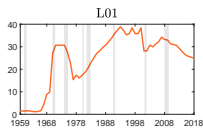
Variable ID Code

ID Code	Variable Name	ID Code	Variable Name
C01	Bananas	C24	Pepper and piper spp
C02	Cassava	C25	Pineapples
C03	Castor oil seed	C26	Roots and tubers nes
C04	Coconuts	C27	Seed cotton
C05	Cotton lint	C28	Sesame seed
C06	Cottonseed	C29	Soybeans
C07	Dry beans	C30	Sugar cane
C08	Dry chillies and peppers	C31	Sweet potatoes
C09	Fibre crops nes	C32	Unmanufactured tobacco
C10	Fresh nes fruit	L01	Buffalo meat
C11	Fresh nes vegetables	L02	Buffalo meat indigenous
C12	Grapefruit and pomelos	L03	Cattle meat
C13	Green coffee	L04	Cattle meat indigenous
C14	Groundnuts with shell	L05	Chicken meat
C15	Jute	L06	Chicken meat indigenous
C16	Lemons and limes	L07	Duck meat
C17	Maize	L08	Duck meat indigenous
C18	Mangoes, mangosteens and guavas	L09	Hen eggs in shell
C19	Natural rubber	L10	Other bird eggs in shell
C20	Nuts nes	L11	Pig meat
C21	Oilseeds nes	L12	Pig meat indigenous
C22	Oranges	L13	Silkworm coiling cocoons
C23	Paddy rice	L14	Whole fresh cow milk

Crop Production in Million of US\$ between 1959-2018



Livestock Production in Million of US\$



Model

the number agricultural commodity in the market $m(N > 1)$

► Power Market

$$AgriDiversity_m = \sum_{i=1}^N \chi_{im}^2$$

the share of product i in the market m

- **Note:** Herfindahl-Hirschman Index (HHI): <0.01 high competitive, <0.15 an unconcentrated industry, $0.15-0.25$ moderate concentration, >0.25 high concentration.

► Production Diversity

land areas devoted to crops n where ($n[1; N]$)

$$Crop(S_t) = - \sum_{i=1}^N s_{nt} \ln(s_{nt})$$

s_{nt}/TL_t

$$Livestock(S_t) = - \sum_{i=1}^N s_{nt} \ln(s_{nt})$$

Model

- ▶ Consider the linear regression model:

true values of unknown β

error terms

$$y_t = x_t' \beta_0 + u_t = x_{1t}' \gamma_0 + x_{2t}' \delta_0 + u_t$$

$K \times 1$ vector of stochastic regressors

- ▶ The appropriate moment conditions:

$$g(\beta_0) = \mathbb{E}[z_t u_t] = \mathbb{E}[z_t (y_t - x_t' \beta_0)] = 0$$



instruments in the $R \times 1$, function $u_t(z_t, \beta)$ maybe linear and non-linear in β

- ▶ Thus, the author replaces with sample averages to obtain the analogous sample moments:

$$g_T(\hat{\beta}) = \frac{1}{T} \sum_{t=1}^T z_t (y_t - x_t' \hat{\beta})$$

Model

- ▶ Now, the author first obtains the first-step GMM estimator by minimizing:

$$\hat{\beta}_{1GMM} = \left[\frac{1}{T_0} \sum_{t=1}^{T_0} z_t(y_t - x_t' \hat{\beta}) \right]' \underset{\substack{\downarrow \\ R \times R \text{ positive semi definite matrix}}}{W_T} \left[\frac{1}{T_0} \sum_{t=1}^{T_0} z_t(y_t - x_t' \hat{\beta}) \right]$$

- ▶ Then, the researcher obtains the second-step GMM estimator by minimizing:

$$\hat{\beta}_{2GMM} = \left[\frac{1}{T} \sum_{t=1}^T z_t(y_t - x_t' \hat{\beta}) \right]' \underset{\substack{\downarrow \\ \hat{S}_T = \hat{\Omega}^{-1} = (\hat{\beta}_{1GMM} \hat{\beta}'_{1GMM})^{-1}}}{\hat{S}_T^{-1}} \left[\frac{1}{T} \sum_{t=1}^T z_t(y_t - x_t' \hat{\beta}) \right]$$

Model

- ▶ Last, the author considers the J test statistic:

$$J_T = \left[\frac{1}{\sqrt{T}} \sum_{t=1}^T z_t (y_t - \hat{\beta}'_T x_t) \right]' \hat{S}_T^{-1} \left[\frac{1}{\sqrt{T}} \sum_{t=1}^T z_t (y_t - \hat{\beta}'_T x_t) \right]$$

Valid only when the weight matrix is optimal

Hansen's J statistic used to determine the validity of the overidentifying restrictions in a GMM model.

Empirical Results

Market Concentration

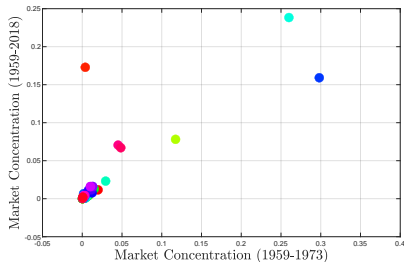
- ▶ While the agrarian economic structure in 1959-1973 and 2004-2018 reported a moderate specialization which represents 0.17 and 0.18.
- ▶ In 2004-2018, cassava makes many contributions to the commercialisation, which accounts for an average of 32% of the total agricultural market. It is followed by paddy rice represented at 24%, sugarcane (12%), pork meat (6%), indigenous pork meat (5.2%) and fresh vegetables (4.2%).
- ▶ On the other side, castor oilseed, cotton lint, seed cotton, jute and cottonseed are fewer overlapping products on markets with a sharing rate of less than 0.0035%.

Market Concentration

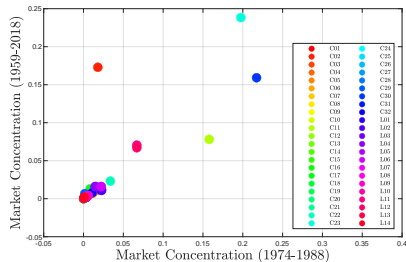
- ▶ Overall, the agricultural commercialisation's structure between 1959 and 2018 is moderately diversified with a negligible index value at 0.13.
- ▶ Simultaneously, paddy rice, cassava, sugarcane, fresh vegetables and pork meat remain reserved to be the highest concentration on the market.

Market Concentration

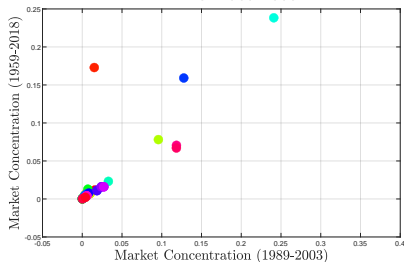
Panel A: 1959-1973



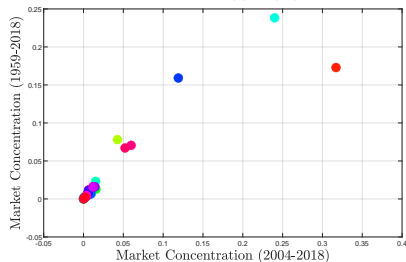
Panel B: 1974-1988



Panel C: 1989-2003



Panel D: 2004-2018



Crop Estimation Results

Variable	C01 (1)	C02 (2)	C03 (3)	C04 (4)	C05 (5)	C06 (6)	C07 (7)	C08 (8)
Index	-8.1983 (7.1843)	194.4893 (317.0582)	-0.1588*** (0.0175)	0.4917 (16.2212)	0.1208* (0.0474)	-0.0300* (0.0141)	130.7735*** (36.4040)	1.7623** (0.5542)
LandIrrigation	-0.0008 (0.0313)	-3.0621 (1.6506)	-0.0001 (0.0001)	-0.1249* (0.0506)	0.0002 (0.0002)	-0.00001 (0.00005)	-0.1014 (0.1181)	0.0007 (0.0032)
Tractors	-0.0014 (0.0010)	-0.0356 (0.0532)	0.000003* (0.000002)	0.0004 (0.0013)	0.000002 (0.000005)	0.0000008 (0.000001)	-0.0059 (0.0034)	0.0002** (0.0001)
Fertilizer	-0.1787* (0.0880)	4.0408 (5.6267)	-0.0017*** (0.0003)	0.4029* (0.1849)	0.0006 (0.0006)	-0.0001 (0.0002)	0.9544* (0.4447)	0.0128 (0.0081)
Pesticides	0.0001 (0.0002)	0.0211* (0.0107)	-0.000002** (0.0000006)	-0.0010*** (0.0003)	0.000001 (0.000001)	0.0000005 (0.0000003)	-0.0004 (0.0007)	0.00003** (0.00001)
Employment	0.0092*** (0.0018)	0.0639 (0.1122)	0.000002 (0.000007)	-0.0007 (0.0031)	-0.000004 (0.000008)	0.000006* (0.000002)	-0.0226*** (0.0064)	0.0009*** (0.0001)
Temperature	0.6721 (0.7490)	-114.3193* (51.2306)	-0.0035 (0.0019)	-0.4799 (0.5897)	0.0037 (0.0029)	-0.0004 (0.0008)	4.1952* (1.9033)	-0.0024 (0.0647)
NCSAgri	0.1708** (0.0648)	-3.1271 (5.5452)	0.0014*** (0.0004)	0.1628 (0.1846)	-0.0004 (0.0004)	0.0006*** (0.0001)	-0.3871 (0.2028)	0.0143** (0.0051)
GFCFAgri	-0.0597 (0.0984)	6.6983* (2.8438)	0.0006*** (0.0002)	-0.0990 (0.1034)	0.0002 (0.0002)	-0.0003*** (0.0001)	-0.2556 (0.2238)	-0.0037 (0.0026)
CreditAgri	-0.0053 (0.0075)	1.0954*** (0.2565)	-0.0002*** (0.00002)	-0.0110 (0.0150)	0.0001* (0.00005)	0.00002 (0.00001)	0.0752* (0.0312)	0.0012** (0.0004)
RDBFunds	-0.0109 (0.0126)	-0.5203 (0.5805)	-0.0003*** (0.00003)	0.0570** (0.0214)	0.0001 (0.0001)	-0.00003 (0.00008)	0.0941 (0.0630)	0.0008 (0.0009)
TechnicalGrants	-0.0097 (0.0057)	0.2688 (0.1858)	-0.0001*** (0.00001)	-0.0075 (0.0073)	0.0001 (0.00004)	-0.00002 (0.00001)	0.0923*** (0.0236)	0.0002 (0.0003)
ForeignAid	0.0001 (0.0005)	-0.0063 (0.0349)	-0.000005** (0.000002)	0.0013 (0.0011)	0.000005 (0.000003)	0.0000006 (0.0000009)	0.0036 (0.0024)	0.0001* (0.000006)
FDIAgri	0.0011 (0.0049)	1.6561*** (0.2501)	-0.00002 (0.00001)	0.0169* (0.0068)	0.000007 (0.00002)	0.000005 (0.000005)	0.0344* (0.0144)	0.0009* (0.0004)
VAAgri	-0.0045 (0.0029)	0.2098 (0.1780)	-0.0001*** (0.00009)	-0.0091 (0.0082)	0.00002 (0.00002)	-0.00002* (0.000007)	0.0403** (0.0152)	0.0002 (0.0003)
VAWorker	0.0306 (0.0180)	-0.7168 (0.9590)	0.0002*** (0.0001)	0.0415* (0.0194)	-0.0002 (0.0001)	0.0001* (0.000003)	-0.2116*** (0.0526)	0.0029** (0.0009)
CFCFAgri	-2.5482* (1.0451)	42.6882 (90.1353)	-0.0200*** (0.0058)	-2.7361 (3.0117)	0.0053 (0.0059)	-0.0096*** (0.0023)	5.0401 (6.4513)	-0.2257** (0.0843)
FCE	-0.0039 (0.0021)	0.2386** (0.0900)	0.00004*** (0.000003)	0.0069* (0.0027)	-0.00002 (0.00001)	0.000001 (0.000003)	0.0259*** (0.0069)	-0.0008*** (0.0001)
TaxesSubsidies	0.0304*** (0.0088)	-1.4487** (0.4799)	-0.0004*** (0.000009)	-0.0083 (0.0073)	0.00003 (0.00003)	0.000004 (0.000008)	0.07532*** (0.0169)	0.00049** (0.0004)
Constant	0.0886 (8.1903)	-146.1604 (517.4292)	0.2640*** (0.0346)	40.8144** (14.7409)	0.0599 (0.0387)	0.0116 (0.0119)	23.5871 (32.6795)	-1.4612* (0.6881)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9074	0.9979	0.7235	0.8475	0.8034	0.7351	0.9611	0.9940
Hansen test	0.0062	0.0085	0.2300	0.0653	0.0622	0.0246	0.0797	0.0167

Bananas

(0.0002)

0.0092***

(0.0018)

6721

(0.1708)

0.1708**

(0.0648)

-0.0597

(0.0021)

0.0304***

(0.0088)

0.0886

Crop Estimation Results

Cassava

Variable	C01 (1)	C02 (2)	C03 (3)	C04 (4)	C05 (5)	C06 (6)	C07 (7)	C08 (8)
Index	-8.1983 (7.1843)	194.4893 (317.0582)	-0.1588*** (0.0175)	0.4917 (16.2212)	0.1208* (0.0474)	-0.0300* (0.0141)	130.7735*** (36.4040)	1.7623** (0.5542)
LandIrrigation	-0.0008 (0.0313)	-3.0621 (1.6506)	-0.0001 (0.0001)	-0.1249* (0.0506)	0.0002 (0.0002)	-0.00001 (0.00005)	-0.1014 (0.1181)	0.0007 (0.0032)
Tractors	-0.0014 (0.0010)	-0.0356 (0.0532)	0.000003* (0.000002)	0.0004 (0.0013)	0.000002 (0.000005)	0.0000008 (0.000001)	-0.0059 (0.0034)	0.0002** (0.0001)
Fertilizer	-0.1787* (0.0880)	4.0408 (5.6267)	-0.0017*** (0.0003)	0.4029* (0.1849)	0.0006 (0.0006)	-0.0001 (0.0002)	0.9544* (0.4447)	0.0128 (0.0081)
Pesticides	0.0001 (0.0002)	0.0211* (0.0107)	-0.000002** (0.0000006)	-0.0010*** (0.0003)	0.000001 (0.000001)	-0.0000005 (0.0000003)	-0.0004 (0.0007)	0.00003** (0.00001)
Employment	0.0092*** (0.00018)	0.0639 (0.1122)	0.000002 (0.000007)	-0.0007 (0.0031)	-0.000004 (0.000008)	0.000006* (0.000002)	-0.0226*** (0.0054)	0.0009*** (0.0001)
Temperature	0.6721 (0.7139)	-114.3193* (51.2306)	-0.0035 (0.0019)	-0.4799 (0.5897)	0.0037 (0.0029)	-0.0004 (0.0008)	4.1952* (1.9033)	-0.0024 (0.0647)
NCSAgri	0.1708** (0.0648)	-3.1271 (5.5452)	0.0014*** (0.0004)	0.1628 (0.1846)	-0.0004 (0.0004)	0.0006*** (0.0001)	-0.3871 (0.2028)	0.0143** (0.0051)
GFCFAgri	-0.0597 (0.0384)	6.6983* (2.8438)	-0.0005*** (0.0002)	-0.0990 (0.1034)	0.0002 (0.0002)	-0.0003*** (0.0001)	-0.2556 (0.2238)	-0.0037 (0.0026)
CreditAgri	-0.0083 (0.0075)	1.0954*** (0.2565)	-0.0002*** (0.00002)	-0.0110 (0.0150)	0.0001* (0.00005)	-0.00002 (0.00001)	0.0752* (0.0312)	0.0012** (0.0004)
RDBFunds	-0.0109 (0.0126)	-0.5203 (0.5805)	-0.0003*** (0.00003)	0.0570** (0.0214)	0.0001 (0.0001)	-0.00003 (0.00008)	0.0941 (0.0630)	0.0008 (0.0009)
TechnicalGrants	-0.0097 (0.0057)	0.2688 (0.1858)	-0.0001*** (0.00001)	-0.0075 (0.0073)	0.0001 (0.00004)	-0.00002 (0.00001)	0.0923*** (0.0299)	0.0002 (0.0003)
ForeignAid	0.0001 (0.0005)	-0.0063 (0.0349)	-0.000005** (0.000002)	0.0013 (0.0011)	-0.000005 (0.000003)	0.0000006 (0.0000009)	0.0036 (0.0024)	0.0001* (0.00006)
FDIAgri	0.0011 (0.0049)	1.6561*** (0.2591)	-0.00002 (0.00001)	0.0169* (0.0068)	0.000007 (0.00002)	0.000005 (0.000005)	0.0344* (0.0144)	0.0009* (0.0004)
VAAgri	-0.0045 (0.0029)	0.2095 (0.1780)	-0.0001*** (0.00009)	-0.0091 (0.0082)	0.00002 (0.00002)	-0.00002* (0.000007)	0.0403** (0.0152)	0.0002 (0.0003)
VAWorker	0.0306 (0.0180)	-0.7168 (0.9590)	0.0002*** (0.0001)	0.0415* (0.0194)	-0.0002 (0.0001)	0.0001* (0.000003)	-0.2116*** (0.0526)	0.0029** (0.0009)
CFCFAgri	-2.5482* (1.0451)	42.6882 (90.1253)	-0.0200*** (0.0058)	-2.7361 (3.0117)	0.0053 (0.0059)	-0.0096*** (0.0023)	5.0401 (6.4513)	-0.2257** (0.0843)
FCE	-0.0039 (0.0021)	0.2386** (0.0900)	0.00004*** (0.000003)	0.0069* (0.0027)	-0.00002 (0.00001)	0.000001 (0.000003)	0.0259*** (0.0069)	-0.0008*** (0.0001)
TaxesSubsidies	0.0304*** (0.0088)	-1.4487** (0.4759)	-0.00004*** (0.000009)	-0.0083 (0.0073)	0.00003 (0.00003)	0.000004 (0.000008)	-0.0753*** (0.0169)	-0.0013** (0.0004)
Constant	0.0886 (8.1903)	-146.1604 (517.4292)	0.2640*** (0.0346)	80.4144** (14.7409)	0.0599 (0.0387)	0.0116 (0.0119)	23.5871 (32.6795)	-1.4612* (0.6881)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9074	0.9979	0.7235	0.8475	0.8034	0.7351	0.9611	0.9940
Hansen test	0.0062	0.0085	0.2300	0.0653	0.0622	0.0246	0.0797	0.0167

6.6983*

(2.8438)

1.0954***

(0.2565)

-0.0063

(0.0349)

1.6561***

(0.2591)

0.2386**

(0.0900)

-1.4487**

(0.4790)

Crop Estimation Results

Variable	C01 (1)	C02 (2)	C03 (3)	C04 (4)	C05 (5)	C06 (6)	C07 (7)	C08 (8)
CIndex	-8.1983 (7.1843)	194.4893 (317.0582)	-0.1588*** (0.0175)	0.4917 (16.2212)	0.1208* (0.0474)	-0.0300* (0.0141)	130.7735*** (36.4040)	1.7623** (0.5542)
LandIrrigation	-0.0008 (0.0313)	-3.0621 (1.6506)	-0.0001 (0.0001)	-0.1249* (0.0506)	0.0002 (0.0002)	-0.0001 (0.00005)	-0.1014 (0.1181)	0.0007 (0.0032)
Tractors	-0.0014 (0.0010)	-0.0356 (0.0532)	0.000003* (0.000002)	0.0004 (0.0013)	0.000002 (0.000005)	0.0000008 (0.000001)	-0.0059 (0.0034)	0.0002** (0.0001)
Fertilizer	-0.1787* (0.0880)	4.0408 (5.6267)	-0.0017*** (0.0003)	0.4029* (0.1849)	0.0006 (0.0006)	-0.0001 (0.0002)	0.9544* (0.4447)	0.0128 (0.0081)
Pesticides	0.0001 (0.0002)	0.0211* (0.0107)	-0.000002** (0.0000006)	-0.0010*** (0.0003)	0.000001 (0.000001)	-0.0000005 (0.0000003)	-0.0004 (0.0007)	0.00003*** (0.00001)
Employment	0.0092*** (0.0018)	0.0639 (0.1122)	0.000002 (0.000007)	-0.0007 (0.0031)	-0.000004 (0.000008)	0.000006* (0.000002)	-0.0226*** (0.0064)	0.0009*** (0.0001)
Temperature	0.6721 (0.7139)	-114.3193* (51.2306)	-0.0035 (0.0019)	-0.4799 (0.5897)	0.0037 (0.0029)	-0.0004 (0.0008)	4.1952* (1.9033)	-0.0024 (0.0647)
NCSAgri	0.1708** (0.0648)	-3.1271 (5.5452)	0.0014*** (0.0004)	0.1628 (0.1846)	-0.0004 (0.0004)	0.0006*** (0.0001)	-0.3871 (0.4028)	0.0143** (0.0051)
GFCFAgri	-0.0597 (0.0384)	6.6983* (2.8438)	-0.0006*** (0.0002)	-0.0990 (0.1034)	0.0002 (0.0002)	-0.0003*** (0.0001)	-0.2556 (0.2238)	-0.0037 (0.0026)
CreditAgri	-0.0083 (0.0075)	1.0954*** (0.2565)	-0.0002*** (0.00002)	-0.0110 (0.0150)	0.0001* (0.00005)	-0.00002 (0.00001)	0.0752* (0.0312)	0.0012** (0.0004)
RDBFunds	-0.1019 (0.0126)	-0.5203 (0.5805)	-0.0003*** (0.00003)	0.0570** (0.0214)	0.0001 (0.0001)	-0.00003 (0.00008)	0.0941 (0.0630)	0.0008 (0.0009)
TechnicalGrants	-0.0097 (0.0057)	0.2688 (0.1858)	-0.0001*** (0.00001)	-0.0075 (0.0073)	0.0001 (0.00004)	-0.0002 (0.0001)	0.0929*** (0.0236)	0.0002 (0.0003)
ForeignAid	0.0001 (0.0005)	-0.0063 (0.0349)	-0.000005*** (0.000002)	0.0013 (0.0011)	0.000005 (0.000003)	0.0000006 (0.0000009)	0.0036 (0.0024)	0.0001* (0.000006)
FDIAgri	0.0011 (0.0049)	1.6561*** (0.2591)	-0.00002 (0.00001)	0.0169* (0.0068)	0.000007 (0.00002)	0.000005 (0.000005)	0.0344* (0.0144)	0.0009* (0.0004)
VAAgri	-0.0045 (0.0029)	0.2098 (0.1780)	-0.0001*** (0.00009)	-0.0091 (0.0082)	0.00002 (0.0002)	-0.00002* (0.000007)	0.0403** (0.0152)	0.0002 (0.0003)
VAWorker	0.0306 (0.0180)	-0.7168 (0.9590)	0.0002*** (0.0001)	0.0415* (0.0194)	-0.0002 (0.0001)	0.0001* (0.00003)	-0.2116*** (0.0526)	0.0029** (0.0009)
CFCFAgri	-2.5482* (1.0451)	42.6882 (90.1353)	-0.0200*** (0.0058)	-2.7361 (3.0117)	0.0053 (0.0059)	-0.0006*** (0.0023)	5.0401 (6.4513)	-0.2257** (0.0868)
FCE	-0.0039 (0.0021)	0.2386** (0.0900)	0.00004*** (0.000003)	0.0069* (0.0027)	-0.00002 (0.00001)	0.000001 (0.000003)	0.0259*** (0.0069)	-0.0008*** (0.0001)
TaxesSubsidies	0.0304*** (0.0088)	-1.4487** (0.4799)	-0.00004*** (0.000009)	-0.0083 (0.0073)	0.00003 (0.00003)	0.000004 (0.000008)	-0.0753*** (0.0169)	0.0013** (0.0001)
Constant	0.0886 (8.1903)	-146.1604 (517.4292)	0.2640*** (0.0346)	40.8144** (14.7409)	0.0599 (0.0387)	0.0116 (0.0119)	23.5871 (32.6795)	-1.4612* (0.6881)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9074	0.9979	0.7235	0.8475	0.8034	0.7351	0.9611	0.9940
Hansen test	0.0062	0.0085	0.2300	0.0653	0.0622	0.0246	0.0797	0.0167

Dry chillies, Peppers

0.00003**
(0.00001)
0.0009***

(0.0026)
0.0012**
(0.0004)

0.0008

-0.0008***
(0.0001)
0.0013**

Crop Estimation Results

Variable	C09 (9)	C10 (10)	C11 (11)	C12 (12)	C13 (13)	C14 (14)	C15 (15)	C16 (16)
Clindex	0.0853 (0.0886)	-10.8461** (3.3299)	107.3922** (40.7379)	-0.1024 (0.0564)	-1.1047*** (0.2158)	-9.2977 (9.7827)	-0.5848* (0.2730)	-0.4778** (0.1734)
LandIrrigation	0.00001 (0.0002)	-0.0034 (0.0110)	-0.3307 (0.2065)	-0.0019*** (0.0002)	-0.0007 (0.0009)	-0.1806*** (0.0386)	0.0039*** (0.0008)	-0.0031*** (0.0006)
Tractors	0.0001*** (0.000008)	0.0013*** (0.0002)	0.0043 (0.0049)	0.00003*** (0.000008)	-0.00004 (0.00002)	0.0044** (0.0014)	0.00003 (0.00002)	0.00005*** (0.00001)
Fertilizer	-0.0003 (0.0009)	-0.1130** (0.0431)	1.5208* (0.7755)	0.0003 (0.0008)	-0.0069* (0.0032)	0.1680 (0.1734)	-0.0157*** (0.0094)	-0.0021 (0.0025)
Pesticides	0.000005** (0.000002)	0.0002** (0.0001)	-0.0040** (0.0013)	0.000005*** (0.00007)	-0.00001 (0.00001)	0.0004 (0.0004)	-0.00001* (0.000006)	0.000003 (0.000004)
Employment	0.00003 (0.00002)	0.0031*** (0.0006)	0.0062 (0.0089)	0.0001*** (0.00001)	0.0001 (0.0001)	-0.0063** (0.0024)	-0.0003*** (0.0001)	0.0002*** (0.00004)
Temperature	-0.0002 (0.0047)	-0.4242* (0.1647)	1.3313 (3.0001)	-0.0048 (0.0032)	0.0266 (0.0175)	-0.2222 (0.8909)	-0.0010 (0.0184)	-0.0018 (0.0100)
NCSAgri	-0.0009 (0.0006)	0.0831* (0.0339)	0.1949 (0.4156)	0.0031*** (0.0007)	0.0091*** (0.0028)	-0.0461 (0.0872)	-0.0154*** (0.0017)	0.0039 (0.0022)
GFCFAgri	0.0004 (0.0004)	-0.0040 (0.0177)	0.1764 (0.2698)	-0.0010* (0.0004)	-0.0056*** (0.0013)	0.0609 (0.0538)	0.0079*** (0.0009)	-0.0014 (0.0011)
CreditAgri	0.00002 (0.0001)	-0.0093** (0.0032)	0.0058 (0.0382)	-0.0002** (0.00002)	-0.0010*** (0.0002)	-0.0208* (0.0099)	-0.0005 (0.0002)	-0.0004* (0.0002)
RDBFunds	-0.0001 (0.0001)	-0.0214** (0.0055)	0.1007 (0.0604)	-0.0003*** (0.0001)	-0.0007 (0.0004)	-0.0519** (0.0197)	-0.0014*** (0.0004)	-0.0005* (0.0003)
TechnicalGrants	0.0001 (0.00005)	-0.0075*** (0.0021)	-0.0172 (0.0266)	-0.0002*** (0.000005)	-0.0007*** (0.0002)	-0.0080 (0.0078)	0.0002 (0.0002)	-0.0004*** (0.0001)
ForeignAid	-0.000007 (0.000006)	-0.0004 (0.0002)	0.0008 (0.0035)	0.000002 (0.000005)	-0.00002 (0.00002)	-0.0017* (0.0008)	-0.0001*** (0.00002)	-0.000008 (0.00001)
FDIAgri	-0.0001*** (0.00003)	0.0042* (0.0016)	-0.0118 (0.0261)	0.0001* (0.00002)	-0.0005*** (0.0001)	-0.0172* (0.0076)	-0.0006*** (0.0001)	-0.0001 (0.0001)
VAAgri	-0.0000005 (0.00004)	-0.0018 (0.0019)	0.0083 (0.0228)	-0.0001*** (0.00002)	-0.0003* (0.0001)	0.0011 (0.0043)	-0.0002 (0.0001)	-0.0001 (0.0001)
VAWorker	0.0001 (0.0001)	0.0294*** (0.0054)	0.0603 (0.0608)	0.0010*** (0.0001)	0.0016** (0.0005)	0.0558** (0.0215)	-0.0016*** (0.0005)	0.0014*** (0.0003)
CFCFAgri	0.0135 (0.0109)	-1.3677* (0.5412)	-2.1141 (7.0113)	-0.0515*** (0.0119)	-0.1326** (0.0449)	0.1382 (1.4454)	0.2600*** (0.0281)	-0.0612 (0.0355)
FCE	-0.00002 (0.00002)	-0.0011** (0.0004)	-0.0072 (0.0074)	0.000005 (0.00002)	0.0002** (0.00002)	0.0111*** (0.0002)	0.0001* (0.00004)	0.0001 (0.00002)
TaxesSubsidies	-0.00004 (0.00004)	0.0133*** (0.0021)	-0.1207** (0.0409)	-0.0001** (0.00003)	0.0004* (0.0002)	-0.0387*** (0.0109)	-0.0003* (0.0001)	-0.0001 (0.0001)
Constant	0.0086 (0.0981)	8.3269*** (2.1064)	75.0958 (41.0947)	0.3756*** (0.0679)	0.0254 (0.2380)	48.4922*** (8.5314)	1.0695*** (0.1714)	0.3651* (0.1463)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9960	0.9944	0.9417	0.9960	0.9889	0.9726	0.8557	0.9890
Hausman test	0.0074	0.1709	0.0026	0.0573	0.2165	0.0107	0.2986	0.0442

0.0002**

(0.0001)

0.0031***

(0.0006)

-0.0214**

(0.0055)

-0.0075***

(0.0003)

-0.0011**

(0.0004)

0.0133***

Freshness fruit

Crop Estimation Results

Variable	C09 (9)	C10 (10)	C11 (11)	C12 (12)	C13 (13)	C14 (14)	C15 (15)	C16 (16)
Clindex	0.0853 (0.0886)	-10.8461** (3.3299)	107.3922** (40.7379)	-0.1024 (0.0766)	-1.1047*** (0.2158)	-9.2977 (9.7827)	-0.5848* (0.2730)	-0.4778** (0.1734)
LandIrrigation	0.00001 (0.0002)	-0.0034 (0.0110)	-0.3307 (0.2065)	-0.0019*** (0.0002)	-0.0007 (0.0009)	-0.1806*** (0.0386)	0.0039*** (0.0068)	-0.0031*** (0.0006)
Tractors	0.0001*** (0.000008)	0.0013*** (0.0002)	0.0043 (0.0049)	0.00003*** (0.000008)	-0.00004 (0.00002)	0.0044** (0.0014)	0.00003 (0.00002)	0.00005* (0.00001)
Fertilizer	-0.0003 (0.0009)	-0.1130** (0.0431)	1.5208* (0.7755)	0.0003 (0.0008)	-0.0069* (0.0032)	0.1680 (0.1734)	-0.0157*** (0.0034)	-0.0021 (0.0025)
Pesticides	0.000005** (0.000002)	0.0002*** (0.0001)	-0.0040** (0.0013)	0.000005*** (0.000007)	-0.00001 (0.000001)	0.0004 (0.0004)	-0.00001* (0.000006)	0.000003 (0.000004)
Employment	0.00003 (0.00002)	0.0031*** (0.0006)	0.0062 (0.0089)	0.0001*** (0.00001)	-0.0003*** (0.0001)	-0.0063** (0.0024)	-0.0003*** (0.0001)	0.0002*** (0.00004)
Temperature	-0.0002 (0.0047)	-0.4242* (0.1647)	1.3313 (3.0001)	-0.0048 (0.0032)	0.0266 (0.0175)	-0.2222 (0.8909)	-0.0010 (0.0184)	-0.0018 (0.0100)
NCSAgri	-0.0009 (0.0006)	0.0831* (0.0339)	0.1949 (0.4156)	0.0031*** (0.0007)	0.0091*** (0.0028)	-0.0461 (0.0872)	-0.0154*** (0.0017)	0.0039 (0.0022)
GFCFAgri	0.0004 (0.0004)	-0.0040 (0.0177)	0.1764 (0.2698)	-0.0010* (0.0004)	-0.0056*** (0.0013)	0.0609 (0.0538)	0.0079*** (0.0009)	-0.0091* (0.0011)
CreditAgri	0.00002 (0.0001)	-0.0093** (0.0032)	0.0058 (0.0382)	-0.0002** (0.00002)	-0.0010*** (0.0009)	-0.0208* (0.0099)	-0.0005 (0.0002)	-0.0004* (0.0002)
RDBFunds	-0.0001 (0.0001)	-0.0214*** (0.0055)	0.1007 (0.0851)	-0.0003*** (0.0001)	-0.0007 (0.0004)	-0.0519** (0.0197)	-0.0014*** (0.0004)	-0.0005* (0.0003)
TechnicalGrants	0.0001 (0.00005)	-0.0075*** (0.0021)	-0.0172 (0.0266)	-0.0002*** (0.000005)	-0.0007*** (0.00002)	-0.0080 (0.0078)	0.0002 (0.0002)	-0.0004*** (0.0001)
ForeignAid	-0.000007 (0.000006)	-0.0004 (0.0002)	0.0008 (0.0035)	0.000002 (0.000005)	-0.00002 (0.00002)	-0.0017* (0.0008)	-0.0001*** (0.00002)	-0.000008 (0.00001)
FDIAgri	-0.0001*** (0.00003)	0.0042** (0.0016)	-0.0118 (0.0261)	0.0001* (0.00002)	-0.0005*** (0.0001)	-0.0172* (0.0076)	-0.0006*** (0.0001)	-0.0001 (0.0001)
VAAgri	-0.0000005 (0.00004)	-0.0018 (0.0019)	0.0083 (0.0228)	-0.0001*** (0.00002)	-0.0003* (0.0001)	0.0011 (0.0043)	-0.0002 (0.0001)	-0.0001 (0.0001)
VAWorker	0.0001 (0.0001)	0.0294*** (0.0054)	0.0603 (0.0608)	0.0010*** (0.0001)	0.0016** (0.0005)	0.0558** (0.0215)	-0.0016*** (0.0005)	0.0014*** (0.0003)
CFCFAgri	0.0135 (0.0109)	-1.3677* (0.5412)	-2.1141 (7.0113)	-0.0515*** (0.0119)	-0.1326** (0.0449)	0.1382 (1.4454)	0.2600*** (0.0281)	-0.0612 (0.0355)
FCE	-0.00002 (0.00002)	-0.0011** (0.0004)	-0.0079 (0.0074)	0.000005 (0.00002)	0.0002** (0.0001)	0.0111*** (0.0022)	0.0001* (0.00004)	0.0001 (0.00002)
TaxesSubsidies	-0.00004 (0.00004)	0.0133*** (0.0021)	-0.1207** (0.0409)	-0.0001* (0.00003)	0.0004 (0.0002)	-0.0387*** (0.0109)	-0.0003* (0.0001)	-0.0001 (0.0001)
Constant	0.0086 (0.0981)	8.3269*** (2.1064)	75.9688 (41.0947)	0.3756*** (0.0679)	0.0254 (0.2380)	48.4922*** (8.5314)	1.0695*** (0.1714)	0.3651* (0.1463)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9960	0.9944	0.9417	0.9960	0.9889	0.9726	0.8557	0.9890
Hausman test	0.0074	0.1709	0.0026	0.0573	0.2165	0.0107	0.2986	0.0442

(11)

107.3922**
(40.7379)

-0.3307

1.5208*
(0.7755)

Freshness vegetables

-0.0040**
(0.0013)

0.0072
(0.0074)

-0.1207**
(0.0409)

0.0056

Crop Estimation Results

Variable	C09 (9)	C10 (10)	C11 (11)	C12 (12)	C13 (13)	C14 (14)	C15 (15)	C16 (16)
Clindex	0.0853 (0.0886)	-10.8461** (3.3299)	107.3922** (40.7379)	-0.1024 (0.0564)	-1.1047*** (0.2158)	-9.2977 (9.7827)	-0.5848* (0.2730)	-0.4778** (0.1734)
LandIrrigation	0.00001 (0.0002)	-0.0034 (0.0110)	-0.3307 (0.2065)	-0.0019*** (0.0002)	-0.0007 (0.0009)	-0.1806*** (0.0386)	0.0039*** (0.0008)	-0.0031*** (0.0006)
Tractors	0.0001*** (0.000008)	0.0013*** (0.0002)	0.0043 (0.0049)	0.00003*** (0.000008)	-0.00004 (0.00002)	0.0044** (0.0014)	0.00003 (0.00002)	0.00005*** (0.00001)
Fertilizer	-0.0003 (0.0009)	-0.1130** (0.0431)	1.5208* (0.7755)	0.0003 (0.0008)	-0.0069* (0.0032)	0.1680 (0.1734)	-0.0157*** (0.0034)	-0.0021 (0.0025)
Pesticides	0.000005** (0.000002)	0.0002*** (0.0001)	-0.0040** (0.0013)	0.000005*** (0.00007)	-0.00001 (0.000001)	0.0004 (0.0004)	-0.00001* (0.000006)	0.000003 (0.000004)
Employment	0.00003 (0.00002)	0.0031*** (0.0006)	0.0062 (0.0089)	0.0001*** (0.00001)	0.0003*** (0.0001)	-0.0063** (0.0024)	-0.0003*** (0.0001)	0.0002*** (0.00004)
Temperature	-0.0002 (0.0047)	-0.4242* (0.1647)	1.3313 (3.0001)	-0.0048 (0.0032)	0.0266 (0.0175)	-0.2222 (0.8909)	-0.0010 (0.0454)	-0.0018 (0.0100)
NCSAgri	-0.0009 (0.0006)	0.0831* (0.0339)	0.1949 (0.4156)	0.0031*** (0.0007)	0.0091*** (0.0028)	-0.0461 (0.0872)	-0.0154*** (0.0017)	0.0039 (0.0022)
GFCFAgri	0.0004 (0.0004)	-0.0040 (0.0177)	0.1764 (0.2698)	-0.0010* (0.0004)	-0.0056*** (0.0013)	0.0609 (0.0538)	0.0079*** (0.0009)	-0.0014 (0.0011)
CreditAgri	0.00002 (0.0001)	-0.0093** (0.0032)	0.0058 (0.0382)	-0.0002** (0.00002)	-0.0010*** (0.00002)	-0.0208* (0.0099)	-0.0005 (0.0002)	-0.0004* (0.0002)
RDBFunds	-0.0001 (0.0001)	-0.0214*** (0.0055)	0.1007 (0.0851)	-0.0003*** (0.0001)	-0.0007*** (0.0004)	-0.0519** (0.0197)	-0.0014*** (0.0004)	-0.0005* (0.0003)
TechnicalGrants	0.0001 (0.00005)	-0.0075*** (0.0021)	-0.0172 (0.0266)	-0.0002*** (0.000005)	-0.0007*** (0.0002)	-0.0080 (0.0078)	0.0002 (0.0002)	-0.0004** (0.0001)
ForeignAid	-0.000007 (0.000006)	-0.0004 (0.0002)	0.0008 (0.0035)	0.000002 (0.000005)	-0.00002 (0.00002)	-0.0017* (0.0008)	-0.0001*** (0.00002)	-0.000008 (0.00001)
FDIAgri	-0.0001*** (0.00003)	0.0042* (0.0016)	-0.0118 (0.0261)	0.0001* (0.00002)	-0.0005*** (0.0001)	-0.0172* (0.0076)	-0.0006*** (0.0001)	-0.0001 (0.0001)
VAAgri	-0.0000005 (0.00004)	-0.0018 (0.0019)	0.0083 (0.0228)	-0.0001*** (0.00002)	-0.0003* (0.0001)	0.0011 (0.0043)	-0.0002 (0.0001)	-0.0001 (0.0001)
VAWorker	0.0001 (0.0001)	0.0294*** (0.0054)	0.0603 (0.0608)	0.0010*** (0.0001)	0.0016** (0.0005)	0.0558** (0.0215)	-0.0016*** (0.0005)	0.0014*** (0.0003)
CFCFAgri	0.0135 (0.0109)	-1.3677* (0.5412)	-2.1141 (7.0113)	-0.0515*** (0.0119)	-0.1326** (0.0449)	0.1382 (1.4454)	0.2600*** (0.0281)	-0.0612 (0.0355)
FCE	-0.00002 (0.00002)	-0.0011** (0.0004)	-0.0072 (0.0074)	0.000005 (0.00002)	0.0002** (0.00007)	0.0111*** (0.0022)	0.0001* (0.00004)	0.0001 (0.00002)
TaxesSubsidies	-0.00004 (0.00004)	0.0133*** (0.0021)	-0.1207** (0.0409)	-0.0001** (0.00003)	0.0004* (0.0002)	-0.0387*** (0.0109)	-0.0003* (0.0001)	-0.0001 (0.0001)
Constant	0.0086 (0.0981)	8.3269*** (2.1064)	75.0958 (41.0947)	0.3756*** (0.0679)	0.0254 (0.2380)	48.4922*** (8.5314)	1.0695*** (0.1714)	0.3651* (0.1463)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9960	0.9944	0.9417	0.9960	0.9889	0.9726	0.8557	0.9890
Hausman test	0.0074	0.1709	0.0026	0.0573	0.2165	0.0107	0.2986	0.0442

-0.0056**
(0.0013)

-0.0010***
(0.0002)

-0.0007
(0.0004)

-0.0007***
(0.0002)

-0.1326**
(0.0449)

0.0002**
(0.0002)

Green coffee

Crop Estimation Results

Maize

Variable	C17 (17)	C18 (18)	C19 (19)	C20 (20)	C21 (21)	C22 (22)	C23 (23)	C24 (24)
Index	-37.2330 (2.67288)	-2.2461 (3.2449)	1.6208 (6.2917)	-0.1221*** (0.0242)	3.0255 (1.9046)	-50.8646* (21.4335)	-591.175*** (99.9941)	-0.6930 (0.5442)
LandIrrigation	-0.9713*** (0.2732)	-0.0147 (0.0086)	0.0092 (0.0276)	-0.0006*** (0.0001)	0.0465*** (0.0066)	-0.2946*** (0.0628)	0.3041 (0.5690)	0.0041 (0.0030)
Tractors	0.0234*** (0.0063)	0.0005*** (0.0002)	-0.0018* (0.0009)	0.0011*** (0.00005)	0.0001 (0.0002)	-0.0003 (0.0021)	-0.0480*** (0.0106)	0.0005*** (0.0001)
Fertilizer	-0.2079 (0.7943)	-0.0292 (0.0290)	-0.1604 (0.1011)	-0.0014** (0.0005)	-0.0597* (0.0248)	-0.1236 (0.2204)	4.2471* (2.0970)	-0.162* (0.0082)
Pesticides	-0.0110*** (0.0014)	-0.00002 (0.0001)	-0.0001 (0.00002)	0.000006*** (0.000009)	-0.000006 (0.00004)	-0.0001 (0.0004)	-0.0292*** (0.0040)	0.0001** (0.00002)
Employment	-0.0227* (0.0100)	0.0004 (0.0007)	0.0072*** (0.0016)	0.0001*** (0.00009)	-0.0004 (0.0003)	0.0112*** (0.0031)	-0.0998*** (0.0282)	0.0008*** (0.0001)
Temperature	-11.5304** (3.8175)	0.0970 (0.1091)	0.5053 (0.4564)	-0.0073*** (0.0022)	0.0507 (0.1320)	-1.8284 (1.1439)	-10.4679 (26.3349)	0.0044 (0.0379)
NCSAgri	1.6177** (0.5474)	0.0124 (0.0250)	0.1963** (0.0661)	0.0007 (0.0005)	0.0014 (0.0143)	0.2514** (0.0923)	1.2213 (1.4830)	-0.0066 (0.0066)
GFCFAgri	-0.2106 (0.3096)	-0.0115 (0.0129)	-0.0765 (0.0406)	0.0002 (0.0003)	-0.0182* (0.0084)	-0.1394 (0.0740)	-1.7319* (0.7153)	0.0087 (0.0044)
CreditAgri	-0.2371*** (0.0515)	-0.0037 (0.0031)	-0.0033 (0.0057)	-0.0001*** (0.00002)	0.0012 (0.0017)	-0.0415* (0.0190)	0.0017*** (0.0839)	-0.0004 (0.0005)
RDBFunds	-0.0102 (0.0988)	-0.0064* (0.0031)	-0.0116 (0.0110)	-0.0003*** (0.0001)	-0.0077* (0.0033)	-0.0395 (0.0297)	1.1772*** (0.2440)	-0.0023 (0.0012)
TechnicalGrants	-0.0445 (0.0292)	-0.0022 (0.0014)	-0.0062* (0.0029)	-0.0001*** (0.00001)	0.0010 (0.0011)	-0.0435** (0.0159)	0.1378 (0.0782)	-0.0008* (0.0003)
ForeignAid	-0.0107* (0.0047)	-0.0002 (0.0002)	0.0004 (0.0005)	0.00000004 (0.0000002)	-0.0001 (0.0001)	-0.0012 (0.0012)	0.0313** (0.0112)	-0.00009 (0.00005)
FDIAgri	-0.0163 (0.0350)	-0.0015 (0.0013)	0.00005 (0.0040)	0.00003 (0.00002)	-0.0016 (0.0009)	0.0091 (0.0089)	0.1682 (0.0900)	-0.0004 (0.0004)
VAAgri	0.0467 (0.0254)	-0.0005 (0.0014)	-0.0042 (0.0022)	-0.00003* (0.00001)	-0.0027** (0.0010)	0.0032 (0.0097)	0.6554*** (0.0490)	-0.0009*** (0.0002)
VAWorker	0.3463*** (0.0941)	0.0056 (0.0038)	0.0226 (0.0126)	0.0006*** (0.00004)	-0.0071** (0.0027)	0.1357*** (0.0302)	-0.7755*** (0.2540)	0.0042*** (0.0010)
CFCAgri	-20.3361* (9.0057)	-0.1885 (0.4234)	-2.9954** (1.0979)	-0.0125 (0.0088)	0.0795 (0.2327)	-4.1325** (1.5574)	-21.1141 (23.3088)	0.1119 (0.1091)
FCE	-0.0483*** (0.0097)	0.0019*** (0.0005)	-0.0037* (0.0016)	-0.000002** (0.00001)	-0.0015*** (0.0004)	0.0110* (0.0045)	0.0466 (0.0391)	-0.0004* (0.0002)
TaxesSubsidies	-0.0059 (0.0411)	-0.0016 (0.0014)	0.0243*** (0.0070)	-0.00004* (0.00002)	0.0030** (0.0010)	-0.0392*** (0.0097)	0.0240 (0.1125)	-0.0004 (0.0006)
Constant	-18.5166 (62.0870)	4.3251 (3.2368)	-18.3803* (9.0371)	-0.0310 (0.0375)	-4.6775** (1.5810)	67.3187*** (13.2100)	307.5397 (171.7835)	-0.2211 (0.7044)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9868	0.9956	0.9100	0.9981	0.9721	0.9690	0.9979	0.9885
Hansen test	0.0024	0.1442	0.0170	0.1122	0.1186	0.1035	0.0647	0.0038

0.8500
-0.9713***
(0.2732)
0.0234***
-11.5304**
(3.8175)
1.6177**
-20.3361*
(9.0057)
-0.0483***
(0.0097)

Crop Estimation Results

Variable	C17 (17)	C18 (18)	C19 (19)	C20 (20)	C21 (21)	C22 (22)	C23 (23)	C24 (24)
CIndex	-37.2330 (56.8386)	-2.2461 (3.2449)	1.6208 (6.2917)	-0.1221*** (0.0242)	3.0255 (1.9046)	-50.8646* (21.4335)	-591.175*** (99.9941)	-0.6930 (5.542)
LandIrrigation	-0.9713*** (0.2732)	-0.0147 (0.0089)	0.0092 (0.0276)	-0.0006*** (0.0001)	0.0465*** (0.0066)	-0.2946*** (0.0628)	0.3041 (0.5690)	0.0041 (0.0030)
Tractors	0.0234*** (0.0063)	0.0005*** (0.0002)	-0.0018* (0.0009)	0.0001*** (0.000006)	0.0001 (0.0002)	-0.0003 (0.0021)	-0.0480*** (0.0011)	0.0005*** (0.0001)
Fertilizer	-0.2079 (0.7943)	-0.0292 (0.0290)	-0.1604 (0.1011)	-0.0014** (0.0005)	-0.0597* (0.0248)	-0.1236 (0.2204)	4.2471* (2.0970)	-0.0162* (0.0082)
Pesticides	-0.0110*** (0.0014)	-0.00002 (0.0001)	-0.0001 (0.0002)	0.000006*** (0.0000009)	-0.000006 (0.00004)	-0.0001 (0.0004)	-0.0292*** (0.0040)	0.0001** (0.00002)
Employment	-0.0227* (0.0100)	0.0004 (0.0007)	0.0072*** (0.0016)	0.0001*** (0.00009)	-0.0004 (0.0003)	0.0112*** (0.0031)	-0.0998*** (0.0282)	0.0008*** (0.0001)
Temperature	-11.5304** (3.8175)	0.0970 (0.1091)	0.5053 (0.4564)	-0.0073*** (0.0022)	0.0507 (0.1320)	-1.8284 (1.1439)	-10.4679 (26.3349)	0.0044 (0.0379)
NCSAgri	1.6177** (0.5474)	0.0124 (0.0250)	0.1963** (0.0661)	0.0007 (0.0005)	0.0014 (0.0143)	0.2514** (0.0923)	1.2213 (1.4830)	-0.0066 (0.0006)
GFCFAgri	-0.2106 (0.3096)	-0.0115 (0.0129)	-0.0765 (0.0406)	0.0002 (0.0003)	0.0182* (0.0084)	-0.1394 (0.0719)	-1.7319* (0.7153)	0.0087 (0.0044)
CreditAgri	-0.2371*** (0.0515)	-0.0037 (0.0031)	-0.0033 (0.0057)	-0.0001*** (0.00002)	0.0012 (0.0017)	-0.0415* (0.0190)	0.4017*** (0.0839)	-0.0004 (0.0005)
RDBFunds	-0.0102 (0.0988)	-0.0064* (0.0031)	-0.0116 (0.0110)	-0.0003*** (0.0001)	-0.0077* (0.0033)	-0.0395 (0.0297)	1.1772*** (0.2440)	-0.0023 (0.0012)
TechnicalGrants	-0.0445 (0.0292)	-0.0022 (0.0014)	-0.0062* (0.0029)	-0.0001*** (0.0001)	0.0010 (0.0011)	-0.0435** (0.0159)	0.1378 (0.0782)	-0.0008* (0.0003)
ForeignAid	-0.0107* (0.0047)	-0.0002 (0.0002)	0.0004 (0.0005)	0.00000004 (0.0000002)	-0.0001 (0.0001)	-0.0012 (0.0012)	0.0313** (0.0112)	-0.000009 (0.00005)
FDIAgri	-0.0163 (0.0350)	-0.0015 (0.0013)	0.00005 (0.0040)	0.00003 (0.00002)	-0.0016 (0.0009)	0.0091 (0.0089)	0.1682 (0.0900)	-0.0004 (0.0004)
VAAgri	0.0467 (0.0254)	-0.0005 (0.0014)	-0.0042 (0.0022)	-0.00003* (0.00001)	-0.0027** (0.0010)	0.0032 (0.0097)	0.6554*** (0.0490)	-0.0009*** (0.0002)
VAWorker	0.3463*** (0.0941)	0.0056 (0.0038)	0.0226 (0.0126)	0.0006*** (0.00004)	-0.0071** (0.0027)	0.1357*** (0.0302)	-0.7755** (0.2540)	0.0042*** (0.0010)
CFCFAgri	-20.3361* (9.0057)	-0.1885 (0.4234)	-2.9954** (1.0979)	-0.0125 (0.0088)	0.0795 (0.2327)	-4.1325** (1.5574)	-21.1141 (23.3088)	-1.119 (0.1091)
FCE	-0.0483*** (0.0097)	0.0019*** (0.0005)	-0.0037* (0.0016)	-0.000003** (0.00001)	-0.0015*** (0.00004)	-0.0010* (0.0045)	0.4066 (0.0391)	-0.0004* (0.0002)
TaxesSubsidies	-0.0059 (0.0411)	-0.0016 (0.0014)	0.0243*** (0.0070)	-0.00004* (0.00002)	0.0030** (0.0010)	-0.0392*** (0.0097)	0.0240 (0.1125)	-0.0004 (0.0006)
Constant	-18.5166 (62.0870)	4.3251 (3.2968)	-18.3803* (9.0371)	-0.0310 (0.0375)	-4.6775** (1.5810)	67.3187*** (13.2100)	307.5397 (171.7835)	-0.2211 (0.7044)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9868	0.9956	0.9100	0.9981	0.9721	0.9690	0.9979	0.9885
Hansen test	0.0024	0.1442	0.0170	0.1122	0.1186	0.1035	0.0647	0.0038

Mangoes, Mangosteens

(0.0086)

0.0005***

(0.0002)

-0.0292

(0.0031)

-0.0064*

(0.0031)

0.0029

(0.4234)

0.0019***

(0.0005)

-0.0016

Crop Estimation Results

Variable	C17 (17)	C18 (18)	C19 (19)	C20 (20)	C21 (21)	C22 (22)	C23 (23)	C24 (24)
Index	-37.2330 (56.8386)	-2.2461 (3.2449)	1.6208 (6.2917)	-0.1221*** (0.0242)	3.0255 (1.5046)	-50.8646* (21.4335)	-591.175*** (99.9941)	-0.6930 (0.5442)
LandIrrigation	-0.9713*** (0.2732)	-0.0147 (0.0086)	0.0092 (0.0276)	-0.0006*** (0.0001)	0.0465*** (0.0066)	-0.2946*** (0.0628)	0.3041 (0.5690)	0.0041 (0.0030)
Tractors	0.0234*** (0.0063)	0.0005*** (0.0002)	-0.0018* (0.0009)	0.0001*** (0.000005)	0.0001 (0.0002)	-0.0003 (0.0021)	-0.0480** (0.0166)	0.0005*** (0.0001)
Fertilizer	-0.2079 (0.7943)	-0.0292 (0.0290)	-0.1604 (0.1011)	-0.0014*** (0.0005)	-0.0597* (0.0248)	-0.1236 (0.2204)	4.2471* (2.0970)	-0.0162* (0.0982)
Pesticides	-0.0110*** (0.0014)	-0.00002 (0.0001)	-0.0001 (0.0002)	0.000006*** (0.000009)	-0.000006 (0.00004)	0.0004 (0.0004)	-0.0292*** (0.0040)	0.0001** (0.0002)
Employment	-0.0227* (0.0100)	0.0004 (0.0007)	0.0072*** (0.0016)	0.0001*** (0.00009)	-0.0004 (0.0003)	0.0112*** (0.0031)	-0.0998*** (0.0282)	0.0008*** (0.0001)
Temperature	-11.5304** (3.8175)	0.0970 (0.1091)	0.5053 (0.4564)	-0.0073*** (0.0022)	0.0507 (0.1320)	-1.8284 (1.1439)	-10.4679 (26.3349)	0.0044 (0.0379)
NCSAgri	1.6177** (0.5474)	0.0124 (0.0250)	0.1963** (0.0661)	0.0007 (0.0005)	0.0014 (0.0143)	2.2514** (0.0923)	0.2544** (1.4830)	-0.0066 (0.0066)
GFCFAgri	-0.2106 (0.3096)	-0.0115 (0.0129)	-0.0765 (0.406)	0.0002 (0.0003)	0.0182* (0.0084)	-0.1394 (0.0719)	-1.7319* (0.7153)	0.0087 (0.0044)
CreditAgri	-0.2371*** (0.0515)	-0.0037 (0.0031)	-0.0033 (0.0057)	-0.0001*** (0.0002)	0.0012 (0.0017)	-0.0415* (0.0190)	0.4017*** (0.0839)	-0.0004 (0.0005)
RDBFunds	-0.0102 (0.0988)	-0.0064* (0.0031)	-0.0116 (0.0110)	-0.0003*** (0.0001)	-0.0077* (0.0033)	-0.0395 (0.0297)	1.1772*** (0.2440)	-0.0023 (0.0012)
TechnicalGrants	-0.0445 (0.0292)	-0.0022 (0.0014)	-0.0062* (0.0029)	-0.0001*** (0.00001)	0.0010 (0.0011)	-0.0435* (0.0159)	0.1378 (0.0782)	-0.0008* (0.0003)
ForeignAid	-0.0107* (0.0047)	-0.0002 (0.0002)	0.0004 (0.0005)	0.00000004 (0.000002)	-0.0001 (0.0001)	-0.0012 (0.0012)	0.0313** (0.0112)	-0.000009 (0.00005)
FDIAgri	-0.0163 (0.0350)	-0.0015 (0.0013)	0.00005 (0.0040)	0.00003 (0.0002)	-0.0016 (0.0009)	0.0091 (0.0089)	0.1682 (0.0900)	-0.0004 (0.0004)
VAAgri	0.0467 (0.0254)	-0.0005 (0.0014)	-0.0042 (0.0022)	-0.00003* (0.00001)	-0.0027** (0.0010)	0.0032 (0.0097)	0.6554*** (0.0490)	-0.0009*** (0.0002)
VAWorker	0.3463*** (0.0941)	0.0056 (0.0038)	0.0226 (0.0126)	0.0006*** (0.00004)	-0.0071** (0.0027)	0.1357*** (0.0302)	-0.7755** (0.2540)	0.0042*** (0.0010)
CPCAgri	-20.3361* (9.0057)	-0.1885 (0.4234)	-2.9954** (1.0079)	-0.0125 (0.0088)	0.0795 (0.2327)	-4.1325** (1.5574)	-21.1141 (23.3088)	0.1119 (0.1091)
FCE	-0.0483*** (0.0097)	0.0019*** (0.0005)	-0.0037* (0.0016)	-0.000003** (0.00001)	-0.0015*** (0.0004)	0.0110* (0.0045)	0.0466 (0.0391)	-0.0004* (0.0002)
TaxesSubsidies	-0.0059 (0.0411)	-0.0016 (0.0014)	0.0243*** (0.0050)	-0.00004* (0.00002)	0.0030** (0.0010)	-0.0392*** (0.0097)	0.0240 (0.1125)	-0.0004 (0.0006)
Constant	-18.5166 (62.0870)	4.3251 (3.2368)	-18.3803* (9.0371)	-0.0310 (0.0375)	-4.6775** (1.5810)	67.3187*** (13.2100)	307.5397 (171.7835)	-0.2211 (0.7044)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9868	0.9956	0.9100	0.9981	0.9721	0.9690	0.9979	0.9885
Hansen test	0.0024	0.1442	0.0170	0.1122	0.1186	0.1035	0.0647	0.0038

Natural rubber

-0.0001
(0.0002)
0.0072***
(0.0016)

(0.0110)
-0.0062*
(0.0029)
0.0004

0.0070
-0.0037*
(0.0016)
0.0243***
0.0070

Crop Estimation Results

Variable	C17 (17)	C18 (18)	C19 (19)	C20 (20)	C21 (21)	C22 (22)	C23 (23)	C24 (24)
Index	-37.2330 (56.8386)	-2.2461 (3.2449)	1.6208 (6.2917)	-0.1221*** (0.0242)	3.0255 (1.9046)	-50.8646* (21.4335)	-591.175*** (99.9941)	-0.6930 (0.5442)
LandIrrigation	-0.9713*** (0.2732)	-0.0147 (0.0086)	0.0092 (0.0276)	-0.0006*** (0.0001)	0.0465*** (0.0066)	-0.2946*** (0.0628)	0.3041 (0.5690)	0.0041 (0.0030)
Tractors	0.0234*** (0.0063)	0.0005*** (0.0002)	-0.0018* (0.0009)	0.0001*** (0.000005)	0.0001 (0.0002)	-0.0003 (0.0021)	-0.0480** (0.0166)	0.0005*** (0.0001)
Fertilizer	-0.2079 (0.7943)	-0.0292 (0.0290)	-0.1604 (0.1011)	-0.0014** (0.0005)	-0.0597** (0.0248)	-0.1236 (0.2204)	4.2471* (2.0970)	-0.0162* (0.0082)
Pesticides	-0.0110*** (0.0014)	-0.00002 (0.0001)	-0.0001 (0.0002)	0.000006*** (0.000009)	-0.000006 (0.00004)	-0.0001 (0.0004)	-0.0292*** (0.0040)	0.0001** (0.0002)
Employment	-0.0227* (0.0100)	0.0004 (0.0007)	0.0072*** (0.0016)	0.0001*** (0.00009)	-0.0004 (0.0003)	0.0112*** (0.0031)	-0.0998*** (0.0282)	0.0008*** (0.0001)
Temperature	-11.5304*** (3.8175)	0.0970 (0.1091)	0.5053 (4.4564)	-0.0073*** (0.0022)	0.0507 (0.1320)	-1.8284 (1.1439)	-10.4679 (26.3349)	0.0044 (0.0379)
NCSAgri	1.6177** (0.5474)	0.0124 (0.0250)	0.1963** (0.0661)	0.0007 (0.0005)	0.0014 (0.0143)	0.2514** (0.0923)	1.2213 (1.4830)	-0.0066 (0.0066)
GFCFgri	-0.2106 (0.3096)	-0.0115 (0.0129)	-0.0765 (0.0406)	0.0002 (0.0003)	0.0182* (0.0084)	-0.1394 (0.0719)	-1.7319* (0.7153)	0.0087 (0.0044)
CreditAgri	-0.2371*** (0.0515)	-0.0037 (0.0031)	-0.0033 (0.0057)	-0.0001*** (0.00002)	0.0012 (0.0017)	-0.0415* (0.0190)	-0.0177** (0.0839)	-0.0004 (0.0005)
RDBFunds	-0.0102 (0.0988)	-0.0064* (0.0031)	-0.0116 (0.0110)	-0.0003*** (0.0001)	-0.0077* (0.0033)	-0.0395 (0.0297)	1.1772*** (0.2440)	-0.0029 (0.0012)
TechnicalGrants	-0.0445 (0.0292)	-0.0022 (0.0014)	-0.0062* (0.0029)	-0.0001*** (0.00001)	0.0010 (0.0011)	-0.0435** (0.0159)	0.1378 (0.0782)	-0.0008* (0.0003)
ForeignAid	-0.0107* (0.0047)	-0.0002 (0.0002)	0.0004 (0.0005)	0.0000004 (0.000002)	-0.0001 (0.0001)	-0.0012 (0.0012)	0.0313** (0.0112)	-0.00009 (0.00005)
FDIgri	-0.0163 (0.0350)	-0.0015 (0.0013)	0.00005 (0.0040)	0.00003 (0.00002)	-0.0016 (0.0009)	0.0091 (0.0089)	0.1682 (0.0900)	-0.0004 (0.0004)
VAgri	0.0467 (0.0254)	-0.0005 (0.0014)	-0.0042 (0.0022)	-0.00003* (0.00001)	-0.0027** (0.0010)	0.0032 (0.0097)	0.6554*** (0.0490)	-0.0009*** (0.0002)
VAWorker	0.3463*** (0.0941)	0.0056 (0.0038)	0.0226 (0.0126)	0.0006*** (0.00004)	-0.0071** (0.0027)	0.1357*** (0.0302)	-0.7755*** (0.2549)	0.0042*** (0.0040)
CFCAgri	-20.3361* (9.0057)	-0.1885 (4.4234)	-2.9954** (1.0979)	-0.0125 (0.0088)	0.0795 (0.2327)	-4.1325** (1.5574)	-21.1141 (23.3088)	0.1119 (0.1091)
FCE	-0.0483*** (0.0097)	0.0019*** (0.0005)	-0.0037* (0.0016)	-0.000003** (0.00001)	-0.0015*** (0.0004)	0.0110* (0.0045)	0.0466 (0.0391)	-0.0004* (0.0002)
TaxesSubsidies	-0.0059 (0.0411)	-0.0016 (0.0014)	0.0243*** (0.0070)	-0.00004* (0.00002)	0.0030** (0.0010)	-0.0392*** (0.0097)	0.0240 (0.1125)	-0.0004 (0.0006)
Constant	-18.5166 (62.0870)	4.3251 (3.2368)	-18.3803* (9.0371)	-0.0310 (0.0375)	-4.6775** (1.5810)	67.3187*** (13.2100)	307.5397 (171.7835)	-0.2211 (0.7044)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9868	0.9956	0.9100	0.9981	0.9721	0.9690	0.9979	0.9885
Hansen test	0.0024	0.1442	0.0170	0.1122	0.1186	0.1035	0.0647	0.0038

Paddy rice

-0.0292***

(0.0040)

-0.0998***

(0.0282)

0.4017**

(0.0839)

1.1772***

(0.2440)

0.6554***

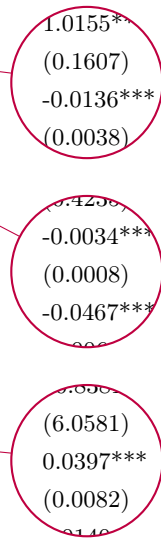
(0.0490)

-0.7755**

(0.2540)

Crop Estimation Results

Variable	C25 (25)	C26 (26)	C27 (27)	C28 (28)	C29 (29)	C30 (30)	C31 (31)	C32 (32)
Clindex	-3.3640* (1.3939)	0.5307 (0.6156)	-0.0005*** (0.0631)	59.0134 (42.0358)	-18.1869 (34.8045)	-0.0878* (0.0353)	12.8889* (5.4102)	97.4332*** (15.7228)
LandIrrigation	-0.0009 (0.0050)	-0.0098*** (0.0030)	0.0024*** (0.0004)	1.236*** (0.3150)	0.1055*** (0.1607)	-0.0006*** (0.0001)	0.0769*** (0.0220)	0.3614*** (0.0662)
Tractors	0.0002* (0.0001)	0.0004*** (0.0001)	0.00005*** (0.00009)	-0.0242*** (0.0060)	-0.0136*** (0.0038)	0.00011*** (0.000005)	-0.0018* (0.0007)	-0.0127*** (0.0015)
Fertilizer	-0.0321* (0.0155)	0.0174* (0.0086)	-0.0082*** (0.0012)	-0.7758 (0.6528)	-1.4206*** (0.4281)	-0.0006 (0.0005)	-0.1154 (0.1119)	0.9297*** (0.3049)
Pesticides	-0.001* (0.00003)	0.00011*** (0.00001)	-0.00005* (0.000002)	-0.0060*** (0.0010)	-0.0034*** (0.0008)	0.000006*** (0.0000009)	-0.0007* (0.0003)	0.0017*** (0.0006)
Employment	-0.0004 (0.0002)	0.0011*** (0.0001)	-0.00003 (0.00002)	-0.0556*** (0.0089)	-0.0467*** (0.0066)	0.00011*** (0.00001)	0.0002 (0.0017)	-0.0057 (0.0048)
Temperature	-0.0496 (0.0408)	0.0026 (0.0400)	-0.0064 (0.0053)	1.6067 (2.6458)	6.6442* (2.7021)	-0.0101*** (0.0019)	1.3729** (0.5304)	5.6426*** (1.3377)
NCSAgri	-0.0021 (0.0105)	0.0158* (0.0067)	-0.0013 (0.0014)	-1.3738*** (0.3873)	-0.4985 (0.3737)	0.0014*** (0.0004)	0.1922* (0.0891)	-0.5237 (0.3038)
GFCAgri	0.0017 (0.0054)	-0.0074* (0.0037)	0.0022** (0.0007)	-0.2448 (0.2220)	-0.1703 (0.2170)	-0.0003 (0.0002)	-0.1313** (0.0478)	0.1345 (0.1541)
CreditAgri	-0.0044*** (0.0013)	0.0005 (0.0004)	-0.0005*** (0.0001)	0.0162 (0.0450)	-0.1019*** (0.0308)	-0.0001 (0.00003)	-0.0031 (0.0054)	0.1173*** (0.0123)
RDBFunds	-0.0057** (0.0020)	0.0006 (0.0011)	-0.0011*** (0.0001)	0.0724 (0.1014)	-0.0243 (0.0579)	-0.0002* (0.0001)	-0.0079 (0.0091)	0.1955*** (0.0253)
TechnicalGrants	-0.0016** (0.0006)	0.0001 (0.0004)	-0.0001 (0.0001)	0.0046 (0.0327)	-0.0105 (0.0179)	-0.0001*** (0.00001)	0.0067 (0.0041)	0.0476*** (0.0085)
ForeignAid	-0.0003*** (0.0001)	0.0001 (0.00004)	-0.00004*** (0.000006)	-0.0019 (0.0033)	-0.0045 (0.0028)	0.000004 (0.000003)	0.0004 (0.0006)	0.0071*** (0.0015)
FDIAgri	0.0013* (0.0006)	0.0004 (0.0004)	-0.0002*** (0.00005)	-0.2297*** (0.0322)	-0.1508*** (0.0177)	0.00004* (0.00002)	0.0006 (0.0038)	0.0282** (0.0100)
VAAgri	-0.0009 (0.0008)	0.0002 (0.0003)	-0.0004*** (0.00004)	0.0111 (0.0252)	-0.0314* (0.0146)	-0.00003* (0.00001)	-0.0040* (0.0018)	0.0604*** (0.0062)
VAWorker	0.0053** (0.0017)	0.0045*** (0.0012)	0.0002 (0.0002)	-0.5220*** (0.0982)	-0.2757*** (0.0536)	0.0006*** (0.00004)	-0.0084 (0.0116)	-0.1618*** (0.0330)
CFCAgri	0.0990 (0.1689)	-0.2642* (0.1102)	0.0336 (0.0232)	22.8732*** (6.3367)	10.4981 (6.0581)	-0.0238*** (0.0063)	-2.6921 (1.4544)	6.1136 (4.9026)
FCE	0.0007*** (0.0002)	-0.0002* (0.0001)	-0.00002 (0.00002)	0.0800*** (0.0148)	0.0397*** (0.0082)	-0.0002* (0.000009)	-0.0017 (0.0012)	-0.0117*** (0.0034)
TaxesSubsidies	-0.0018** (0.0006)	0.0004 (0.0003)	0.0003 (0.0001)	-0.1223** (0.0375)	0.0140 (0.0229)	-0.00003 (0.00002)	0.0182** (0.0063)	0.0554*** (0.0141)
Constant	4.2074*** (1.0867)	-0.7826 (0.6092)	0.1871* (0.0797)	-72.5890 (61.9609)	-47.3051 (41.5487)	-0.0731 (0.0512)	-24.5867*** (6.7614)	-70.3773*** (18.1845)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9951	0.9981	0.8231	0.9057	0.9717	0.9982	0.7781	0.9411
Hausman test	0.0299	0.0242	0.1239	0.0210	0.0090	0.0934	0.0089	0.0352



Soybeans

Crop Estimation Results

Variable	C25 (25)	C26 (26)	C27 (27)	C28 (28)	C29 (29)	C30 (30)	C31 (31)	C32 (32)
Clindex	-3.3640* (1.3939)	0.5307 (0.6156)	-0.0005*** (0.0631)	59.0134 (42.0358)	-18.1869 (34.8045)	-0.0878* (0.0499)	12.8889* (5.4102)	97.4332*** (15.7228)
LandIrrigation	-0.0009 (0.0050)	-0.0098*** (0.0030)	0.0024*** (0.0004)	1.2236*** (0.3150)	1.0155*** (0.1607)	-0.0006*** (0.0001)	0.0769*** (0.0220)	0.3614*** (0.0662)
Tractors	0.0002* (0.0001)	0.0004*** (0.0001)	0.00005*** (0.00009)	-0.0242*** (0.0060)	-0.0136*** (0.0038)	0.0001*** (0.00005)	-0.0018* (0.0007)	-0.0127*** (0.0015)
Fertilizer	-0.0321* (0.0155)	0.0174* (0.0086)	-0.0082*** (0.0012)	-0.7758 (0.6528)	-1.4206*** (0.4235)	-0.0006 (0.0005)	-0.1154 (0.1119)	0.9297*** (0.3049)
Pesticides	-0.001* (0.00003)	0.0001*** (0.00001)	-0.00005* (0.000002)	-0.0060*** (0.0010)	-0.0034*** (0.0008)	0.000006*** (0.0000009)	-0.0007* (0.0003)	0.0017*** (0.0006)
Employment	-0.0004 (0.0002)	0.0011*** (0.0001)	-0.00003 (0.00002)	-0.0556*** (0.0089)	-0.0467*** (0.0066)	0.0001*** (0.00001)	0.0002 (0.0017)	-0.0057 (0.0048)
Temperature	-0.0496 (0.0408)	0.0026 (0.0400)	-0.0064 (0.0053)	1.6067 (2.6458)	6.6442* (2.7021)	-0.0101*** (0.0019)	1.3729** (0.5304)	5.6426*** (1.3377)
NCSAgri	-0.0021 (0.0105)	0.0158* (0.0067)	-0.0013 (0.0014)	-1.3738*** (0.3873)	-0.4985 (0.3737)	0.0014*** (0.0004)	0.1922* (0.0891)	-0.5237 (0.3038)
GFCAgri	0.0017 (0.0054)	-0.0074* (0.0037)	0.0022** (0.0007)	-0.2448 (0.2220)	-0.1703 (0.2170)	-0.0003 (0.0002)	-0.1313** (0.0478)	0.1345 (0.1511)
CreditAgri	-0.0044*** (0.0013)	0.0005 (0.0004)	-0.0005*** (0.0001)	0.0162 (0.0450)	-0.1019*** (0.0308)	-0.0001 (0.00003)	-0.0031 (0.0054)	0.1173*** (0.0123)
RDBFunds	-0.0057** (0.0020)	0.0006 (0.0011)	-0.0011*** (0.0001)	0.0724 (0.1014)	-0.0243 (0.0579)	-0.0002* (0.0001)	-0.0079 (0.0091)	0.1955*** (0.0253)
TechnicalGrants	-0.0016** (0.0006)	0.0001 (0.0004)	-0.0001 (0.0001)	0.0046 (0.0327)	-0.0105 (0.0179)	-0.0001*** (0.00001)	0.0067 (0.0041)	0.0476*** (0.0085)
ForeignAid	-0.0003*** (0.0001)	0.0001 (0.00004)	-0.00004*** (0.000006)	-0.0019 (0.0033)	-0.0045 (0.0028)	0.000004 (0.000003)	0.0004 (0.0006)	0.0071*** (0.0015)
FDIAgri	0.0013* (0.0006)	0.0004 (0.0004)	-0.0002*** (0.00005)	-0.2297*** (0.0322)	-0.1508*** (0.0177)	0.00004* (0.00002)	0.0006 (0.0038)	0.0282** (0.0100)
VAAgri	-0.0009 (0.0008)	0.0002 (0.0003)	-0.0004*** (0.00004)	0.0111 (0.0252)	-0.0314* (0.0146)	-0.00003* (0.00001)	-0.0040* (0.0018)	0.0604*** (0.0062)
VAWorker	0.0053** (0.0017)	0.0045*** (0.0012)	0.0002 (0.0002)	-0.5220*** (0.0982)	-0.2757*** (0.0536)	0.0006*** (0.00004)	-0.0084 (0.0116)	-0.1618*** (0.0330)
CFCAgri	0.0990 (0.1689)	-0.2642* (0.1102)	0.0336 (0.0232)	22.8732*** (6.3367)	10.8381 (6.0581)	-0.0238*** (0.0085)	-2.9621 (1.4544)	6.1136 (4.9026)
FCE	0.0007*** (0.0002)	-0.0002* (0.0001)	-0.00002 (0.00002)	0.0800*** (0.0148)	0.0397*** (0.0082)	-0.0002* (0.00009)	-0.0017 (0.0012)	-0.0117*** (0.0034)
TaxesSubsidies	-0.0018** (0.0006)	0.0004 (0.0003)	0.00003 (0.0001)	-0.1223** (0.0375)	0.0140 (0.0229)	-0.00003 (0.00002)	0.0182** (0.0063)	0.0554*** (0.0141)
Constant	4.2074*** (1.0867)	-0.7826 (0.6092)	0.1871* (0.0797)	-72.5890 (61.9699)	-47.3051 (41.5487)	-0.0731 (0.0512)	-24.5867*** (6.7614)	-70.3773*** (18.1845)
Observations	30	30	30	30	30	30	30	30
R-squared	0.9951	0.9981	0.8231	0.9057	0.9717	0.9982	0.7781	0.9411
Hansen test	0.0299	0.0242	0.1239	0.0210	0.0090	0.0934	0.0089	0.0352

-0.0006***
(0.0001)

0.0001***

-0.0101***
(0.0019)

0.0014***

0.0006***
(0.00004)

-0.0238***

Sugarcane

Livestock Estimation Results

Variable	L01 (1)	L02 (2)	L03 (3)	L04 (4)	L05 (5)	L06 (6)	L07 (7)
LIndex	-30.5980 (27.6738)	-26.8487 (25.2397)	21.7303 (45.3714)	19.8166 (40.1902)	-140.2263*** (16.0302)	-135.8415*** (11.3303)	36.4574*** (5.7823)
Employment	0.0015 (0.0068)	0.0025 (0.0058)	0.0171* (0.0078)	0.0127 (0.0069)	0.0062 (0.0039)	0.0036 (0.0032)	0.0056*** (0.0015)
Temperature	-0.4370 (1.0327)	-0.6641 (0.9222)	-2.4070 (4.6889)	-2.8166* (1.4006)	-1.9736* (0.8485)	-1.9432*** (0.5692)	-0.5797 (0.4544)
NCSAgri	0.1278 (0.1998)	0.1743 (0.1673)	0.3648 (0.2261)	0.3444 (0.1873)	-0.0323 (0.1694)	-0.0277 (0.1434)	0.1555* (0.0637)
GFCFAgri	0.0149 (0.0806)	-0.0103 (0.0662)	-0.2124* (0.1064)	-0.2457** (0.0752)	-0.1729* (0.0754)	-0.1850** (0.0607)	-0.0816** (0.0257)
CreditAgri	-0.0097 (0.0061)	-0.0094 (0.0059)	0.0030 (0.0107)	-0.0147 (0.0100)	0.0197** (0.0076)	0.0018 (0.0049)	-0.0038 (0.0032)
RDBFunds	-0.0476*** (0.0110)	-0.0404*** (0.0106)	0.0223 (0.0284)	0.0416 (0.0223)	0.0074 (0.0145)	0.0128 (0.0080)	-0.0010 (0.0060)
TechnicalGrants	-0.0104 (0.0061)	-0.0147** (0.0054)	-0.0022 (0.0157)	-0.0011 (0.0113)	0.0071 (0.0069)	0.0046 (0.0053)	-0.0025 (0.0030)
ForeignAid	-0.0002 (0.0009)	-0.0003 (0.0009)	0.0012 (0.0017)	0.0001 (0.0014)	0.0021* (0.0011)	-0.0002 (0.0006)	-0.0002 (0.0004)
FDIAgri	0.0059 (0.0094)	0.0095 (0.0092)	-0.0036 (0.0215)	-0.0054 (0.0194)	-0.0071 (0.0067)	-0.0115* (0.0048)	-0.0133*** (0.0026)
VAAgri	-0.0069 (0.0038)	-0.0076* (0.0033)	-0.0020 (0.0048)	-0.0037 (0.0049)	0.0025 (0.0051)	0.0019 (0.0046)	-0.0010 (0.0027)
VAWorker	0.0616** (0.0227)	0.0704*** (0.0190)	0.0433 (0.0327)	0.0354 (0.0273)	-0.0112 (0.0189)	-0.0104 (0.0170)	0.0121 (0.0092)
CFCFAgri	-2.1967 (3.0902)	-2.8150 (2.5880)	-5.9576 (3.4743)	-5.2280 (2.9124)	-0.0242 (2.6627)	0.2777 (2.2570)	-2.3388* (0.9763)
FCE	0.0009 (0.0064)	-0.0010 (0.0057)	-0.0001 (0.0081)	0.0009 (0.0073)	0.0149*** (0.0037)	0.0149*** (0.0029)	-0.0019 (0.0012)
TaxesSubsidies	-0.0191 (0.0213)	-0.0155 (0.0194)	0.0287 (0.0303)	0.0238 (0.0271)	-0.0255 (0.0135)	-0.0317** (0.0103)	0.0120* (0.0050)
Constant	70.9555 (67.6453)	58.7389 (60.5071)	-65.4513 (92.5921)	-54.6891 (84.6693)	262.1270*** (37.2487)	252.3085*** (27.8570)	-75.1185*** (13.6150)
Observations	30	30	30	30	30	30	30
R-squared	0.8721	0.8105	0.9563	0.9713	0.9479	0.9630	0.9855
Hansen test	0.0408	0.0206	0.0088	0.0070	0.0028	0.0289	0.8812

Cattle meat/indigenous

Livestock Estimation Results

(5) (6)
 0.2263*** -135.8415*
 (6.0302) (11.3303)
 0.0062 0.0036
 (0.0039) (0.0032)
 0.736* -1.9432**
 (0.56)

(5) (6)
 0.242 0.2777
 (0.6627) (2.2570)
 0.0149*** 0.0149***
 (0.0037) (0.0029)
 0.0255 -0.0317**
 (0.135) (0.0102)
 *** **

Chicken meat/indigenous

Variable	L01 (1)	L02 (2)	L03 (3)	L04 (4)	L05 (5)	L06 (6)	L07 (7)
LIndex	-30.5980 (27.6738)	-26.8487 (25.2397)	21.7303 (45.3714)	19.8166 (40.1902)	-140.2263*** (16.0302)	-135.8415*** (11.3303)	36.4574*** (5.7823)
Employment	0.0015 (0.0068)	0.0025 (0.0058)	0.0171* (0.0078)	0.0127 (0.0069)	0.0062 (0.0039)	0.0036 (0.0032)	0.0056*** (0.0015)
Temperature	-0.4370 (1.0327)	-0.6641 (0.9222)	-2.4070 (1.6889)	-2.8166* (1.4006)	-1.9736* (0.8485)	-1.9432*** (0.5692)	-0.5797 (0.4544)
NCSAagri	0.1278 (0.1998)	0.1743 (0.1673)	0.3648 (0.2261)	0.3444 (0.1873)	-0.0323 (0.1694)	-0.0277 (0.1434)	0.1555* (0.0637)
GFCFAgri	0.0149 (0.0806)	-0.0103 (0.0662)	-0.2124* (0.1064)	-0.2457** (0.0752)	-0.1729* (0.0754)	-0.1850** (0.0607)	-0.0816** (0.0257)
CreditAgri	-0.0097 (0.0061)	-0.0094 (0.0059)	-0.0030 (0.0107)	-0.0147 (0.0100)	0.0197** (0.0076)	0.0018 (0.0049)	-0.0038 (0.0032)
RDBFunds	-0.0476*** (0.0110)	-0.0404*** (0.0106)	0.0223 (0.0284)	0.0416 (0.0223)	0.0074 (0.0145)	0.0128 (0.0080)	-0.0010 (0.0060)
TechnicalGrants	-0.0104 (0.0061)	-0.0147** (0.0054)	-0.0022 (0.0157)	-0.0011 (0.0113)	0.0071 (0.0069)	0.0046 (0.0053)	-0.0025 (0.0030)
ForeignAid	-0.0002 (0.0009)	-0.0003 (0.0009)	0.0012 (0.0017)	0.0001 (0.0014)	0.0021* (0.0011)	-0.0002 (0.0006)	-0.0002 (0.0004)
FDIAgri	0.0059 (0.0094)	0.0095 (0.0092)	-0.0036 (0.0215)	-0.0054 (0.0194)	-0.0071 (0.0067)	-0.0115* (0.0048)	-0.0133*** (0.0026)
VAAgri	-0.0069 (0.0038)	-0.0076* (0.0033)	-0.0020 (0.0048)	-0.0037 (0.0049)	0.0025 (0.0051)	0.0019 (0.0046)	-0.0010 (0.0027)
VAWorker	0.0616** (0.0227)	0.0704*** (0.0190)	0.0433 (0.0327)	0.0354 (0.0273)	-0.0112 (0.0189)	-0.0104 (0.0170)	0.0121 (0.0092)
CFCFAgri	-2.1967 (3.0902)	-2.8150 (2.5880)	-5.9576 (3.4743)	-5.2280 (2.9124)	-0.0232 (2.6627)	0.2777 (2.2570)	-2.3388* (0.9763)
FCE	0.0009 (0.0064)	-0.0010 (0.0057)	-0.0001 (0.0081)	0.0009 (0.0073)	0.0149*** (0.0037)	0.0149*** (0.0029)	-0.0019 (0.0012)
TaxesSubsidies	-0.0191 (0.0213)	-0.0155 (0.0194)	0.0287 (0.0303)	0.0238 (0.0271)	-0.0255 (0.0135)	-0.0317** (0.0103)	0.0120* (0.0050)
Constant	70.9555 (67.6453)	58.7389 (60.5071)	-65.4513 (92.5921)	-54.6891 (84.6693)	262.1270*** (37.2487)	252.3085*** (27.8570)	-75.1185*** (13.6150)
Observations	30	30	30	30	30	30	30
R-squared	0.8721	0.8105	0.9563	0.9713	0.9479	0.9630	0.9855
Hansen test	0.0408	0.0206	0.0088	0.0070	0.0028	0.0289	0.8812

Livestock Estimation Results

Variable	L08 (8)	L09 (9)	L10 (10)	L11 (11)	L12 (12)	L13 (13)	L14 (14)
LIndex	35.3257*** (4.8066)	26.6621* (11.8848)	2.7378*** (0.7760)	-227.0047 (224.5299)	510.4103** (182.5438)	-0.3033 (0.3241)	1.2241 (9.7418)
Employment	0.0058*** (0.0014)	0.0048 (0.0027)	0.0006*** (0.0002)	-0.0557 (0.0528)	0.1331** (0.0463)	0.0000006 (0.00001)	0.0080*** (0.0024)
Temperature	-0.4342 (0.4113)	-1.3840 (0.9069)	0.0651 (0.0456)	-23.2213*** (6.5969)	4.8656 (9.3787)	0.0037 (0.0156)	-0.0222 (0.4356)
NCSAgri	0.1491* (0.0581)	0.1426 (0.0942)	0.0063 (0.0081)	-1.8934 (1.9874)	2.4040 (2.0568)	0.0032 (0.0021)	0.2900** (0.1116)
GFCFAgri	-0.0779** (0.0244)	-0.0161 (0.0370)	-0.0056 (0.0042)	-0.5199 (0.6046)	-1.2340 (0.8077)	-0.0043*** (0.0010)	-0.0956** (0.0360)
CreditAgri	-0.0027 (0.0031)	-0.0109* (0.0055)	-0.0002 (0.0004)	0.0043 (0.0474)	0.0326 (0.0900)	0.0004 (0.0001)	-0.0107*** (0.0021)
RDBFunds	-0.0039 (0.0059)	-0.0098 (0.0098)	-0.0011 (0.0008)	0.1048 (0.1296)	-0.3866* (0.1739)	0.0003 (0.0003)	-0.0208*** (0.0061)
TechnicalGrants	-0.0022 (0.0029)	-0.0015 (0.0033)	-0.0004 (0.0005)	-0.0287 (0.0639)	-0.2059** (0.0754)	0.0001 (0.0001)	-0.0053 (0.0045)
ForeignAid	-0.0002 (0.0003)	0.0018 (0.0010)	-0.0001 (0.00004)	-0.0016 (0.0039)	0.0100 (0.0073)	0.0002 (0.00001)	0.0008* (0.0003)
FDIAgri	-0.0136*** (0.0027)	-0.0012 (0.0040)	-0.0001 (0.0005)	0.0452 (0.0388)	0.1549*** (0.0432)	-0.0002 (0.0002)	-0.0001 (0.0023)
VAAgri	-0.0016 (0.0026)	-0.0028 (0.0027)	-0.0004 (0.0003)	0.0733 (0.0558)	-0.0882 (0.0794)	0.00005 (0.0001)	-0.0129*** (0.0024)
VAWorker	0.0111 (0.0084)	0.0184 (0.0101)	0.0005 (0.0010)	-0.0606 (0.2718)	0.6464* (0.3005)	-0.00001 (0.0002)	0.0581*** (0.0130)
CFCFAgri	-2.2856* (0.8908)	-1.9745 (1.4726)	-0.0898 (0.1288)	27.2991 (30.7990)	-41.3014 (31.9085)	-0.0615 (0.0329)	-4.5148** (1.7436)
FCE	-0.0011 (0.0009)	0.0061* (0.0027)	0.0002 (0.0002)	0.1347** (0.0498)	0.0282 (0.0393)	0.0001 (0.0001)	-0.0010 (0.0022)
TaxesSubsidies	0.0102* (0.0042)	0.0221* (0.0092)	0.0006 (0.0005)	-0.5763*** (0.1602)	-0.2056 (0.1138)	0.0008* (0.0004)	0.0023 (0.0082)
Constant	-72.4037*** (11.3279)	-56.4672* (27.4613)	-3.3053* (1.6309)	638.5401 (555.6171)	-1114.5857* (438.3674)	0.9886 (0.6932)	-28.3137 (23.7258)
Observations	30	30	30	30	30	30	30
R-squared	0.9846	0.9201	0.9882	0.9487	0.9163	0.9112	0.8794
Hansen test	0.6787	0.0863	0.0208	0.0263	0.0008	0.0018	0.0969

Hen eggs/others in shell

Livestock Estimation Results

Variable	L08 (8)	L09 (9)	L10 (10)	L11 (11)	L12 (12)	L13 (13)	L14 (14)
LIndex	35.3257*** (4.8066)	26.6621* (11.8848)	2.7378*** (0.7760)	-27.0047 (224.5299)	510.4103** (182.5438)	-0.3033 (0.3241)	1.2241 (9.7418)
Employment	0.0058*** (0.0014)	0.0048 (0.0027)	0.0006*** (0.0002)	0.0557 (0.0528)	0.1331** (0.0463)	0.0000006 (0.0001)	0.0080*** (0.0024)
Temperature	-0.4342 (0.4113)	-1.3840 (0.9069)	0.0651 (0.0456)	-23.2213*** (6.5969)	4.8656 (9.3787)	0.0037 (0.0156)	-0.0222 (0.4356)
NCSAgri	0.1491* (0.0581)	0.1426 (0.0942)	0.0063 (0.0081)	-1.8934 (1.9874)	2.4040 (2.0568)	0.0032 (0.0021)	0.2900** (0.1116)
GFCFAgri	-0.0779** (0.0244)	-0.0161 (0.0370)	-0.0056 (0.0042)	-0.5199 (0.6046)	-1.2340 (0.8077)	-0.0043*** (0.0010)	-0.0956** (0.0360)
CreditAgri	-0.0027 (0.0031)	-0.0109* (0.0055)	-0.0002 (0.0004)	0.0043 (0.0474)	0.0326 (0.0900)	0.00004 (0.0001)	-0.0107*** (0.0021)
RDBFunds	-0.0039 (0.0059)	-0.0098 (0.0098)	-0.0011 (0.0008)	0.1048 (0.1296)	-0.3866* (0.1739)	0.0003 (0.0003)	-0.0208*** (0.0061)
TechnicalGrants	-0.0022 (0.0029)	-0.0015 (0.0033)	-0.0004 (0.0005)	-0.0287 (0.0639)	-0.2059** (0.0754)	0.0001 (0.0001)	-0.0053 (0.0045)
ForeignAid	-0.0002 (0.0003)	0.0018 (0.0010)	-0.0001 (0.00004)	-0.0016 (0.0039)	0.0100 (0.0073)	0.00002 (0.00001)	0.0008* (0.0003)
FDIAgri	-0.0136*** (0.0027)	-0.0012 (0.0040)	-0.0001 (0.0005)	0.0452 (0.0388)	0.1549*** (0.0432)	-0.0002 (0.0002)	-0.0001 (0.0023)
VAAgri	-0.0016 (0.0026)	-0.0028 (0.0027)	-0.0004 (0.0003)	0.0733 (0.0558)	-0.0882 (0.0794)	0.00005 (0.0001)	-0.0129*** (0.0024)
VAWorker	0.0111 (0.0084)	0.0184 (0.0101)	0.0005 (0.0010)	-0.0606 (0.2718)	0.6464* (0.3005)	-0.00001 (0.0002)	0.0581*** (0.0130)
CFCFAgri	-2.2856* (0.8908)	-1.9745 (1.4726)	-0.0898 (0.1288)	27.2991 (30.7990)	41.3014 (31.9085)	-0.0615 (0.0329)	-4.5148** (1.7436)
FCE	-0.0011 (0.0009)	0.0061* (0.0027)	0.0002 (0.0002)	0.1347** (0.0498)	0.0282 (0.0393)	0.0001 (0.0001)	-0.0010 (0.0022)
TaxesSubsidies	0.0102* (0.0042)	0.0221* (0.0092)	0.0006 (0.0005)	-0.5763*** (0.1602)	-0.2056 (0.1138)	0.0008* (0.0004)	0.0023 (0.0082)
Constant	-72.4037*** (11.3279)	-56.4672* (27.4613)	-3.3053* (1.6309)	638.5401 (555.6171)	-1114.6857* (438.3674)	0.9886 (0.6932)	-28.3137 (23.7258)
Observations	30	30	30	30	30	30	30
R-squared	0.9846	0.9201	0.9882	0.9487	0.9163	0.9112	0.8794
Hansen test	0.6787	0.0863	0.0208	0.0263	0.0008	0.0018	0.0969

Pig meat/indigenous

Summary Empirical Results

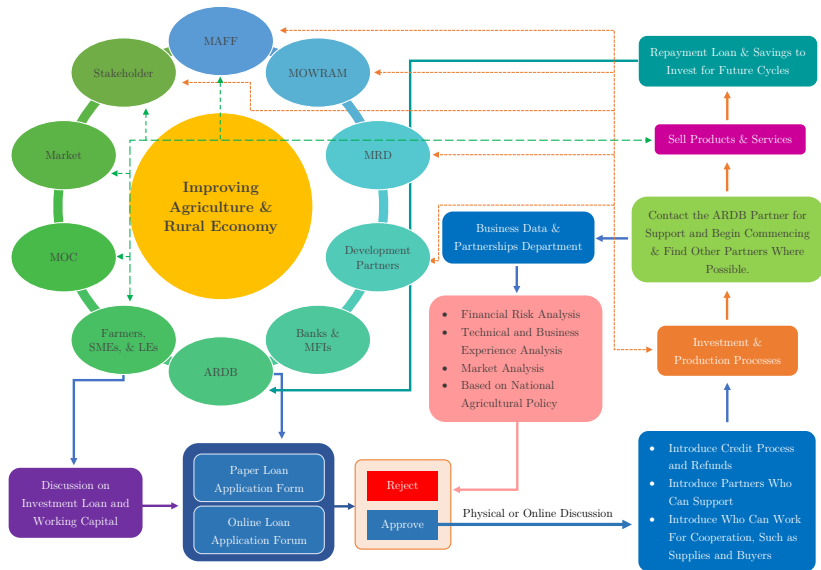
- ▶ With these results, it has shown that crop products such as cassava, dry chilies and peppers, grapefruit and pomelos, green coffee, lemons and limes, mangoes, nuts, paddy rice, pineapples, roots and tubes are increased income overtime.
- ▶ At the same time, that gross income of duck meat and other bird eggs in shells has radically enhanced over the period during the last 60 years.
- ▶ The researcher would like to suggest government ownership of banks should afford financial support to all of these products in the list down above.
- ▶ Even some products in this suggestion have negative efficiency of direct and indirect inputs used according to the main estimation results.

Policy Discussions

Policy Discussion

- ▶ For the public bank to contribute more efficaciously to the development of agriculture is should to create a “*new system*” – *transfer grants with technical assistance*
- ▶ Subsidies should dominate for those who are firmly committed to investing and who cannot afford to obtain loans from other financing and investment schemes related to potential products
- ▶ Credit processes and administrative services must be timely, reasonable, reliable, good quality, and secures – *invest in new technological innovations*
- ▶ Create a central hub that for accessing agrarian information, finding new markets, trading partners, and technical assistance – *community-supported agriculture*

Policy and Investment Cycle



Conclusion

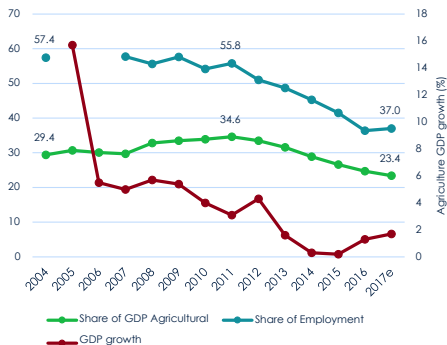
- ▶ This article finds that agricultural inputs such as water through irrigation, tractors, fertilizers, employment, and net capital stock in agriculture are not much efficient for crop production.
- ▶ The author also finds that many direct and indirect inputs are not correlated with livelihood's product estimators.
- ▶ Simultaneously, the researcher notes that value added per capita in agriculture, consumption, and taxes less subsidies in the product cannot be a significant driver of growth in production in the crop and livestock subsector.

Conclusion

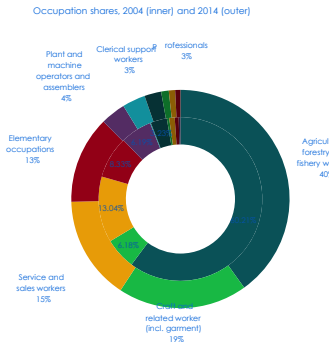
- ▶ This paper contributes to the literature on agriculture financing, diversification, government ownership of banks, subsidy, and two-step GMM estimator in agriculture.
- ▶ The combination of these other econometric methods with theoretical and policy discussions on micro dataset in specific products, market information and value chain in the crop and livestock subsector in a particular region or province would be a useful addition to the literature.

Appendix

Agricultural GDP and Employment



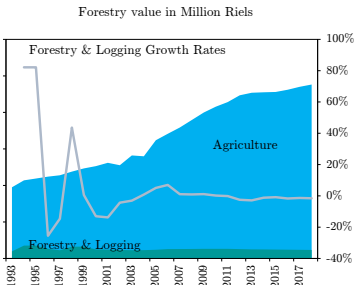
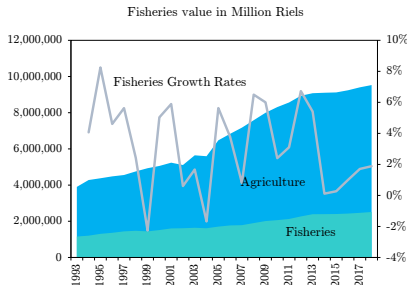
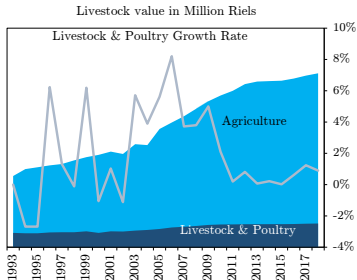
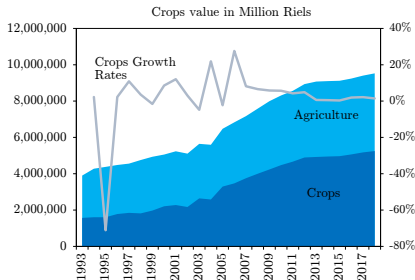
Source: Cambodia Economic Diversification Study
Fostering diversification, value chain participation, and upgrading, June, 2019.



Agricultural GDP growth has slowed since 2012, and the share in employment and GDP has declined. While more than half of the workforce were still employed in poor quality jobs in 2014.

Crop, Livestock, Fisheries, and Forestry Outcome

[◀ Back](#)



Source: Ministry of Economy and Finance 2018