INTERNATIONAL COFFEE ORGANIZATION

Profitability of coffee farming in selected Latin American countries

ICC 124-6

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124th Session of the International Coffee Council

Nairobi, Kenya

Background

MOTIVATION OF THE STUDY

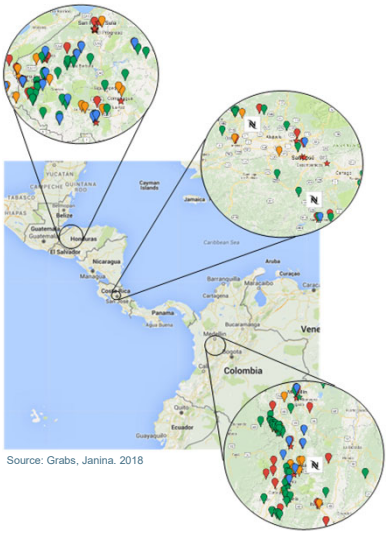
- Low world market prices
  - increased pressure on higher-cost origins
- High variation in production costs
  - between regions and across individual growers
- Identify the drivers of farm profitability
- Scarce literature on production costs
  - methodological shortcomings
- No unified methodology to calculate production costs

THE FARMER SURVEY

- Examine in-depth farmer-level data
  - Calculate distribution of costs and profitability
- Random sample of 1,907 coffee farmers in 3 major coffee regions
  - Colombia's Coffee Belt (745)
  - Los Santos and the Western Valley in Costa Rica (503)
  - three regions in Honduras (659).
- Detailed farmer-specific cost and production data collected in 2017

Selected geographic areas

Photo credit: Paulo Mortara Batistic



Source: Grabs, Janina. 2018

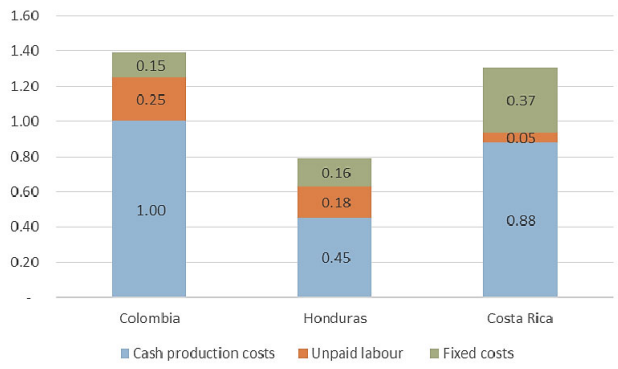
Conceptual framework

HOW DO WE CONCEPTUALIZE COSTS?

- Farmer's view: Cash Outlays
  - Paid labour
  - Inputs
- Economists view: Full Economic Costs
  - Unpaid/family labour
  - "Fixed costs"
    - Installation costs (spread out)
    - Depreciation of machinery/equipment
    - Finance costs (interest payments)

Results

CASH VS FULL ECONOMIC COSTS 2015/16 (US$/lb)



- Cash costs → generally what farmers consider when they evaluate profitability

AVERAGE COSTS FOR INPUTS 2015/16 (US$)

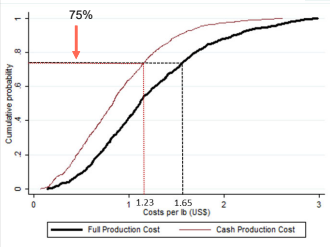
	Colombia	Honduras	Costa Rica
- Average labour costs (per day)	14.33	6.48	17.85
Input costs			
- Herbicides (glyphosate 1 litre)	4.62	6.51	6.31
- Fertilizer (urea 45 kg)	18.18	21.28	16.45
Installation costs			
- Cost per plant	0.09	0.18	0.38

- Striking differences in input prices across countries

DISTRIBUTION OF PRODUCTION COSTS 2015/16 (US$/lb)

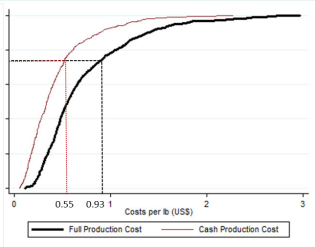
- Farm-gate prices needed to ensure that 75% of farmers breakeven

Colombia



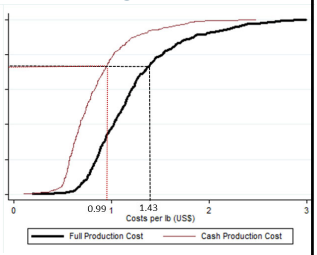
US$1.19/lb*

Honduras



US$0.88/lb*

Costa Rica

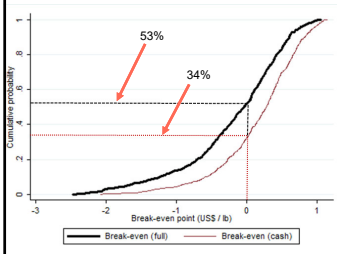


US$1.25/lb*

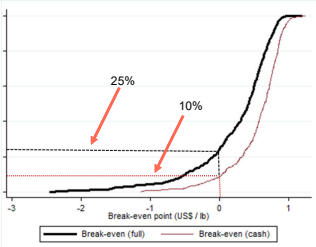
*ICO reported farm-gate prices

SHARE OF SAMPLE FARMERS THAT WERE LOSS MAKING 2015/16

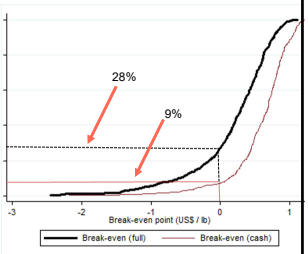
Colombia



Honduras



Costa Rica



*Expressed in terms of gross margin 2015/16: price/lb – costs/lb

Conclusions & outlook

CONCLUSION AND NEXT STEPS

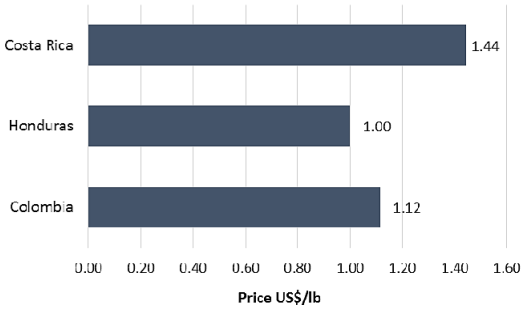
- Significant difference in production costs across countries
  - Honduras much lower than the other two
- Labour represents the highest share of costs
  - Colombia (75%), Costa Rica (57%), Honduras (56%)
  - Wages vary significantly across countries
- Colombian producers face both short- and long-term challenges to profitability

Next steps:

- Econometric analysis to identify the factors driving efficiency of production and profitability

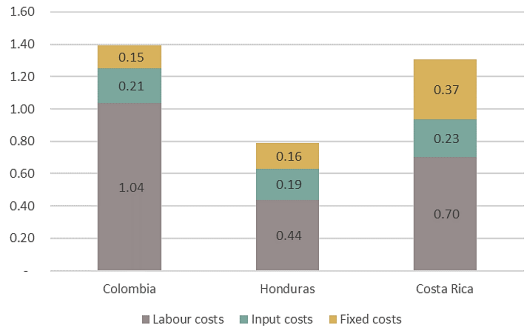
Appendix

Average farm-gate prices 2015/16 (US$/lb)

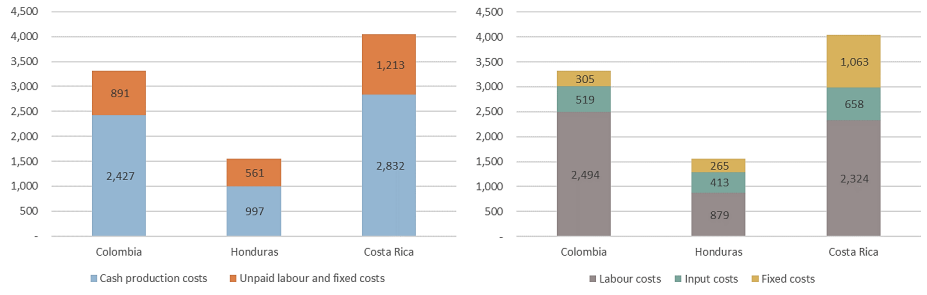


*Farmer-specific prices converted to green coffee beans.

Cost structure of full economic costs 2015/16 (US$/lb)



Full economic costs by country in 2015/16 (US$/ha)



Average production costs by country in 2015/16 (US$/ha)

	Colombia (n=720)	Honduras (n=644	Costa Rica (n=493
Paid labour	**1,907.92**	**583.86**	**2,173.91**
Labour pruning and weeding	245.13	137.47	148.44
Labour fertilizing	75.39	39.29	26.91
Labour spraying	48.99	25.63	55.17
Labour harvest	1,538.41	381.47	1,408.99
Permanent Labour (manageria	-	-	534.39
Unpaid labour	**586.11**	**295.61**	**150.19**
Labour pruning and weeding	79.57	55.55	96.49
Labour fertilizing	27.24	17.92	19.42
Labour spraying	12.11	9.11	34.29
Labour harvest	467.19	213.02	-
Inputs	**519.18**	**412.79**	**658.36**
Herbicides	2.16	3.65	29.42
Pesticides	22.46	27.94	122.92
Fertilizer	494.57	381.19	506.02
Fixed costs	**304.59**	**265.02**	**1,062.54**
Distributed fixed cost			
- Installation costs	40.80	47.76	142.14
- Depreciation of machinery	112.93	84.67	523.85
Opportunity cost of land	97.50	91.00	357.50
Finance cost	53.36	41.59	39.05
Total production costs	**3,317.80**	**1,557.26**	**4,045.01**